The University of North Carolina at Chapel Hill

undergraduate bulletin

RECORD 1998-1999

departments and faculty
course descriptions
The University of North Carolina at Chapel Hill

The Undergraduate Bulletin
Fall 1998-1999 Record
Although the publisher of this bulletin has made every reasonable effort to attain factual accuracy herein, no responsibility is assumed for editorial, clerical, or printing errors or errors occasioned by mistakes. The publisher has attempted to present information which, at the time of preparation for printing, most accurately describes the course offerings, faculty listings, policies, procedures, regulations, and requirements of the University. However, it does not establish contractual relationships. The University reserves the right to alter or change any statement contained herein without prior notice.

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Statement on Equal Educational Opportunity
The University of North Carolina at Chapel Hill is committed to equality of educational opportunity and does not discriminate against applicants, students, or employees based on race, color, national origin, religion, sex, age, or disability. Any complaints alleging failure of this institution to follow this policy should be brought to the attention of the Assistant to the Chancellor. Moreover, The University of North Carolina at Chapel Hill is open to people of all races and actively seeks to promote integration by recruiting and enrolling a larger number of African American, Native American, and other minority students.

Policy on Nondiscrimination
It is the policy of The University of North Carolina at Chapel Hill that educational and employment decisions should be based on individuals' abilities and qualifications and should not be based on irrelevant factors or personal characteristics that have no connection with academic abilities or job performance. Among the traditional factors which are generally "irrelevant" are race, sex, religion, and national origin. It is the policy of The University of North Carolina at Chapel Hill that an individual's sexual orientation be treated in the same manner. This policy prohibiting discrimination on the basis of sexual orientation does not apply to the University's relationship with outside organizations, including the federal government, the military, ROTC, and private employers.

The Honor Code: It shall be the responsibility of every student at The University of North Carolina at Chapel Hill to obey and to support the enforcement of the Honor Code, which prohibits lying, cheating, or stealing when these actions involve academic processes or University, student, or academic personnel acting in an official capacity.

The Campus Code: And it shall be the further responsibility of every student to abide by the Campus Code; namely, to conduct oneself so as not to impair significantly the welfare or the educational opportunities of others in the University community.
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The University of North Carolina at Chapel Hill:  
An Introduction

Visiting Campus

Visitors are always welcome at The University of North Carolina at Chapel Hill.

When arranging a visit to campus, contact the UNC-Chapel Hill Visitors’ Center at (919) 962-1630 or write: Visitors’ Center, Morehead Building and Planetarium, Chapel Hill, N.C. 27599-3475. At the center, visitors can obtain general information about the University, watch a video, or check out a walkman tour of the historic campus. If you are a prospective student and want information about admission to the University, contact the Undergraduate Admissions Office at 966-3621.

Limited visitors’ parking is available near the Visitors’ Center at the Morehead Building and Planetarium, in front of the Undergraduate Admissions office in Jackson Hall, and in designated spots near Hanes Hall.

A campus map is located prior to the index of this publication. A more in-depth campus map may be purchased at Student Stores in the Daniels Building and at the Visitors’ Center.

Overnight accommodations are usually available (except on football weekends, Commencement, and other special occasions) at the Carolina Inn, near the center of the University. Call the Carolina Inn at (919) 933-2001 for overnight reservations.

Numerous other hotels are in the Durham-Chapel Hill vicinity. Persons planning to visit campus should seek reservations well in advance.

Offices of the University are open from 8 a.m. to 5 p.m. Monday through Friday, but normally are not open during holidays. While visiting campus, please do not enter classrooms or residence hall rooms when they are in use.

Using the Undergraduate Bulletin

The Undergraduate Bulletin is a valuable tool that prospective and enrolled students can use throughout their days at The University of North Carolina at Chapel Hill. The Bulletin supplies general information about the University to prospective students and their parents. It includes information about application procedures and about orientation and matriculation for students who have been accepted.

Academic regulations, University facilities, and college life also are described. Departmental degree requirements and course offerings are included, but students in some specialized curricula will be referred to other publications for additional information. Enrolled students are encouraged to use the Bulletin in addition to talking with faculty advisers.

This bulletin is concerned primarily with prospective students and with undergraduates enrolled in the General College, the College of Arts and Sciences, and the schools of Business, Education, Journalism and Mass Communication, Dentistry, Medicine, Nursing, Pharmacy, and Public Health.

The following catalogs and admissions brochures are published by The University of North Carolina at Chapel Hill: Kenan-Flagler Business School, Graduate School of Business Administration, School of Dentistry, School of Education, The Graduate School, School of Journalism and Mass Communication, School of Law, School of Information and Library Science, School of Medicine, School of Nursing, School of Public Health, School of Social Work, and Summer School.

Continuing Studies and Independent Studies also publish course catalogs.

Carolina on the Internet

To find out more about the University through the World Wide Web, you can access the University’s home page at <http://www.unc.edu>.

Corresponding with the University

Prospective students will conduct most of their business with the University’s Office of Undergraduate Admissions. Campus visitors can find the office in Jackson Hall on Country Club Road. The mailing address is Undergraduate Admissions, Jackson Hall, CB# 2200, The University of North Carolina at Chapel Hill, Chapel Hill, N.C. 27599-2200.

After being formally accepted, students may have questions about housing and accommodations. If so, students can contact the Department of Housing in Carr Building, CB# 5500 or call (919) 962-5101.

Students with questions about their proposed program of study should establish contact with the academic dean in that area. The General College, with offices in Steele Building, telephone (919) 966-5116, is responsible for all freshmen, except those in Dental Hygiene, who should communicate directly with their department. The Office of Scholarships and Student Aid, 300 Vance Hall, CB# 2300, telephone (919) 962-8396, has general charge of scholarships, grants, job opportunities, and loans.

Telephone calls to any office or person in the University system can be completed through the University operator in Chapel Hill when the caller does not know the direct number. The operator’s number is (919) 962-2211.

A lost and found office is maintained in the basement of the Carolina Union by Alpha Phi Omega service fraternity, telephone (919) 962-1044.
Campus Tours for Prospective Students

Tours for prospective students begin at 10 a.m. and 2 p.m. each weekday during fall and spring semesters except on University holidays. Tours begin at the Office of Undergraduate Admissions, and are led by Carolina students. To make reservations, call (919) 966-3621 or write: Undergraduate Admissions, CB# 2200, Jackson Hall, Chapel Hill, NC 27599.

Obtaining an Undergraduate Bulletin

Admitted freshmen will be given the opportunity to obtain a free Undergraduate Bulletin. Thereafter, students can refer to new editions of the Bulletin by purchasing one from Student Stores either in person or by mail. For information about purchasing the Bulletin, call (919) 962-3567 or write:

Student Stores
The University of North Carolina at Chapel Hill
Daniels Building, CB# 1530
Chapel Hill, N.C. 27599-1530

Reference copies of the Bulletin are available at campus libraries and with each student's faculty adviser.

Reaching the Office of Undergraduate Admissions

The starting point for most prospective students is the University's Office of Undergraduate Admissions. The office and its knowledgeable personnel help prospective students understand the requirements and procedures of applying for admission to UNC-Chapel Hill. Admissions personnel can be reached at Undergraduate Admissions, Jackson Hall, CB# 2200, The University of North Carolina at Chapel Hill, Chapel Hill, N.C. 27599-2200. The telephone number is (919) 966-3621.
The University of North Carolina at Chapel Hill: History of the University

Adapted from an article by William S. Powell, Professor Emeritus, Department of History

The University of North Carolina was anticipated by a section of the first state constitution drawn up in 1776 directing the establishing of "one or more universities" in which "all useful learning shall be duly encouraged and promoted." State support, it directed, should be provided so that instruction might be available "at low prices." The American Revolution intervened and it was not until 1789, the year that George Washington became president of the new nation, that the University was chartered by the General Assembly.

Despite constitutional instructions to the contrary, no state appropriations were made, and the trustees were left to secure land and money themselves. On October 12, 1793, the cornerstone was laid for a brick building on a hilltop near the center of the state amidst the colorful fall foliage of dogwood, oak, and tulip trees.

The site, lying at the crossing of north-south and east-west roads, was marked only by a small Anglican chapel that soon shared part of its name - New Hope Chapel Hill - with the community that developed there. Legislator and trustee William R. Davie, who had been instrumental in securing passage of the charter, took the lead in organizing the University. Davie presided over the Masonic ritual of the laying of the cornerstone. In time he came to be called "the Father of the University." Many years later a large poplar or tulip tree, first mentioned in 1818 and still standing near the center of the old campus, was called Davie Poplar in his honor.

The first building and, indeed, the only building for two years, was a two-story brick structure that came to be called Old East. It is now a National Historic Landmark, the oldest state university building in America. Opened to students on January 15, 1795, The University of North Carolina received its first student, Hinton James of New Hanover County, on February 12. By March there were two professors and forty-one students present.

The second state university did not begin classes until 1801 when a few students from nearby academies assembled under a large tree at Athens, Georgia, for instruction. By then four classes had already been graduated at Chapel Hill and there were to be three more before the first diplomas were issued in Georgia. The next building on the Carolina campus was Person Hall, begun in 1796 and long used as the chapel. The cornerstone of Main or South Building was laid in 1798. All three are older than any other American state university building.

During the early nineteenth century the trustees began a period of strong support in the development of the young University. Even though their proclaimed initial goal for the University had been to provide trained leadership for the state, the curriculum followed the customary classical trend. In 1815, however, the natural sciences were given equal place, and in the 1820s Professors Denison Olmstead and Elisha Mitchell prepared the nation's first geological survey. In 1831 the first astronomical observatory at a state university was built under the direction of President Joseph Caldwell. Student enrollment increased steadily, and by 1860 only Yale College had more students.

Young men from many states came to Chapel Hill for their education, particularly those from families who had recently left North Carolina to settle elsewhere in the South. The University of North Carolina provided governors not only for North Carolina but also for many other states; countless professions and occupations were represented, including cabinet members, clergymen, diplomats, engineers, geologists, judges, legislators, surveyors, teachers, and a president and a vice president of the United States among others.
The Civil War was responsible for the closing of many colleges and universities, but the University was one of the few Southern institutions to remain open throughout the war. During Reconstruction, however, it was closed from 1870 until 1875; buildings had deteriorated, equipment had disappeared during the federal occupation of the campus, and politicians attempted to direct the course of the University by naming professors, trustees, and other officers.

With a change in the political leadership of the state, however, the University reopened under new trustees who soon began to inaugurate programs that once again marked it as a leading university. A program of graduate study for advanced degrees was announced in 1876. The first University summer school for teachers anywhere in America opened in Chapel Hill in 1877, and two years later medical and pharmaceutical courses were established as regular offerings.

Heretofore the University had survived on student fees, gifts, escheats, and other minor sources of income. All of the buildings on the campus had been erected through the generosity of alumni and other benefactors. In 1881, however, after nearly a century of precarious existence, the University received the first legislative appropriation for its support.

Although many teachers in the academies and common schools of the state were trained at the University, it was not until 1885 that a teacher training program became an established part of the curriculum. In 1894 the law school was incorporated into the course of study offered by the University, and in 1897 the first woman student was admitted. By the end of the century there were 512 students enrolled with a faculty of thirty-five. By the Commencement of 1900 thirty-one master's degrees and seven doctoral degrees had been awarded—the first of each in 1888.

An outstanding example of the new research role of the University occurred in 1892. William Rand Kenan Jr., working in the University laboratory of Professor Francis P. Venable, participated in experiments that resulted in the identification of calcium carbide and the development of a formula for making acetylene gas. With the beginning of the twentieth century the University entered a period of renewed growth and service. In 1904 the first chapter of Phi Beta Kappa in North Carolina was established at the University. In 1913 the offerings in the field of education were reorganized as the School of Education, while the Bureau of Extension was created to make the University's resources more widely available to people across the state. Special notice was taken in 1915 when student enrollment for the first time reached one thousand. It was in 1915 that alumnus Isaac E. Emerson gave the University a stadium for the athletic field. In 1927 William Rand Kenan Jr. donated the football stadium.

The endowed Kenan professorships fund, established in 1917, provided further incentive for excellence in teaching and research. In 1919 the School of Commerce, now the Kenan-Flagler Business School, was established. The School of Public Welfare began in 1920 as an outgrowth of the Department of Sociology. Thirty years later its name was changed to School of Social Work. In 1922 the University was elected to membership in the Association of American Universities. The UNC Press also was incorporated that year, while two years later the Institute for Research in Social Science was organized. By 1930 there were 2,600 students at the University and a faculty of 222 full- and 85 part-time members. Teaching, study, and research took place at undergraduate, graduate, and professional levels in twelve colleges and schools and in twenty-one departments.
The General Assembly in 1931 consolidated the University with the Woman’s College at Greensboro and North Carolina State College at Raleigh under a single Board of Trustees. As an economy measure during the Depression and as a means of eliminating duplication, the trustees allocated each unit specific roles in higher education for the state. The offices of the Consolidated University were established on the Chapel Hill campus and University President Frank Porter Graham became the Consolidated University’s first president.

The period of the Depression in the 1930s saw a great deal of new construction on the campus as federal funds became available to create jobs for the unemployed. New dormitories, classroom buildings, a gymnasium, and other buildings and improvements were built in part from this source. World War II also resulted in some new construction and alterations on campus as the University’s facilities were used to train military personnel.

In 1931 the School of Library Science was established and the Institute of Government founded. The latter, first of its kind in the nation, became an official part of the University in 1942. In 1936 the School of Public Health was formed. A Naval ROTC unit was created in 1940 and joined by the Air Force ROTC unit in 1947.

The Division of Health Affairs was formally organized in 1949, with schools of Dentistry and Nursing added to the schools of Medicine, Pharmacy, and Public Health. The University thereby became one of the few in the nation with schools in the five health professions. The opening of North Carolina Memorial Hospital in 1952 provided clinical facilities for the schools.

The Morehead Building and Planetarium were completed in 1949, and in the next year the School of Journalism was organized, although courses in journalism had been offered for many years. In 1990 the School became the School of Journalism and Mass Communication. The William Hayes Ackland Art Museum was completed in 1958 and in the following year the University became one of the first to install a large computer system.

As the twentieth century neared its end, the campus became the scene of further changes. The Walter Royal Davis Library was dedicated in 1985 and soon afterwards the renovated L. R. Wilson Library was opened to house the Special Collections. Other new building projects include the Smith Center for athletic and cultural events, the Kenan Center, Fetzer Gymnasium, Carmichael Residence Hall, and new facilities for the departments of Art, Chemistry, and Computer Science. In the medical complex, Memorial Hospital’s Critical Care Center, the Lineberger Cancer Research Building, the Public Health and Environmental Sciences Building, and a new building for the Department of Family Medicine were completed.

The period between 1990 and 1995 included the completion of structures such as the Ambulatory Care Facility, Cone-Kenfield Tennis Center, Craige Parking Deck, Fordham Hall (Biology/Biotechnology), George Watts Hill Alumni Center, McGavran-Greenberg (Public Health and Environmental Sciences Center), Student Recreation Center, Thurston-Bowles Building, and William and Ida Friday Continuing Education Center.

By 1995 the campus was the site of nearly 250 permanent buildings in addition to temporary structures, trailers, and leased property. There were 23,108 students enrolled in spring semester 1995 and 2,200 full-time faculty members. The Alumni Association counted more than 202,598 living alumni. Since it opened in 1795, the University has trained more than 780,000 men and women exclusive of those who attended summer school or special courses.

The University has been recognized for the quality of its graduate programs in every national survey conducted in the past third of this century. U.S. News and World Report’s survey of American colleges and universities consistently ranks the University among the best colleges in the nation and among the top research universities.

These accolades reflect the quality of the curriculum and of the faculty, whose research orientation allows them to share with their students not only the thrill of discovery, but also the latest advancements and new knowledge. Another asset that contributes to this reputation is UNC-Chapel Hill’s superb library system containing more than four million volumes. It is ranked among the top research libraries in the United States and Canada by the Association of Research Libraries.

The University is the most comprehensive institution in North Carolina, both in the range of its programs at all levels and in the breadth of its specialized research and public service programs. The University’s fourteen colleges and schools provide instruction in more than a hundred fields, offering 95 baccalaureate, 175 master’s, and 109 doctoral programs, as well as professional degrees in dentistry, medicine, pharmacy, law, and library science. It has more than remained faithful to its founding fathers’ charge to duly encourage and promote all useful learning for the betterment of humanity.
The University of North Carolina at Chapel Hill: Mission Statement

The University of North Carolina at Chapel Hill has existed for two centuries as the nation’s first state university. Through its excellent undergraduate programs, it has provided higher education to ten generations of students, many of whom have become leaders of the state and the nation. Since the nineteenth century, it has offered distinguished graduate and professional programs.

The University is a research university. Fundamental to this designation is a faculty actively involved in research, scholarship, and creative work, whose teaching is transformed by discovery and whose service is informed by current knowledge.

The mission of the University is to serve all the people of the state, and indeed the nation, as a center for scholarship and creative endeavor. The University exists to teach students at all levels in an environment of research, free inquiry, and personal responsibility; to expand the body of knowledge; to improve the condition of human life through service and publication; and to enrich our culture.

To fulfill this mission, the University must:

- extend knowledge-based services and other resources of the University to the citizens of North Carolina and their institutions to enhance the quality of life for all people in the state; and
- address, as appropriate, regional, national, and international needs.

This mission imposes special responsibilities upon the faculty, students, staff, administration, trustees, and other governance structures and constituencies of the University in their service and decision-making on behalf of the University.

April 25, 1986, as adopted by the Board of Trustees, The University of North Carolina at Chapel Hill.
## Academic Calendar 1998-1999

<table>
<thead>
<tr>
<th>ACTIVITY</th>
<th>DATE</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>First Summer Session 1998</strong></td>
<td></td>
</tr>
<tr>
<td>Students registered for the 1998 spring term will be ACTIVATED into the 1998 summer and fall terms in preparation for telephone registration.</td>
<td>Saturday, February 28</td>
</tr>
<tr>
<td>Summer advising begins according to school policy. (See Advising Sessions in the Summer School Catalog.)</td>
<td>Monday, March 16</td>
</tr>
<tr>
<td>Telephone Registration Period I (TR I) begins according to Telephone Registration Schedule. (See Summer School Catalog.)</td>
<td>Saturday, March 21</td>
</tr>
<tr>
<td>Billing dates (See Tuition and Fees in the Summer School Catalog.)</td>
<td>Wednesday, March 25 - Wednesday, April 15</td>
</tr>
<tr>
<td>TR I closes at 5 p.m.</td>
<td>Wednesday, April 15</td>
</tr>
<tr>
<td>Tuition and Fees due for all students. (Students who register in TR I must pay or defer tuition and fees by this date or their schedule will be cancelled and all their courses dropped.)</td>
<td>Friday, May 1</td>
</tr>
<tr>
<td>Pre-Registered Class Rolls distributed.</td>
<td>Friday, May 8</td>
</tr>
<tr>
<td>Telephone Registration Period II (TR II) begins for all students.</td>
<td>Wednesday, May 13</td>
</tr>
<tr>
<td>Residence Halls open at 9 a.m.</td>
<td>Wednesday, May 20</td>
</tr>
<tr>
<td>Classes begin for all students. Late registration begins. $10 Fee charged for late registration.</td>
<td>Thursday, May 21</td>
</tr>
<tr>
<td>Last day to add a course and end of late registration. No registration or course adds accepted through Telephone Registration after 5 p.m.</td>
<td>Friday, May 22</td>
</tr>
<tr>
<td><strong>HOLIDAY, Memorial Day</strong></td>
<td>Monday, May 25</td>
</tr>
<tr>
<td>Last day to reduce course load for credit on a student's financial account. (Dropping only course requires Official Withdrawal.)</td>
<td>Thursday, May 28</td>
</tr>
<tr>
<td>TR II closes at 5 p.m.</td>
<td>Thursday, May 28</td>
</tr>
<tr>
<td>Last day for undergraduate students to drop courses.</td>
<td>Thursday, June 4</td>
</tr>
<tr>
<td>Verification Class Rolls distributed.</td>
<td>Monday, June 8</td>
</tr>
<tr>
<td>Last day to withdraw for credit on student's financial account. (Prorated over three weeks.)</td>
<td>Thursday, June 11</td>
</tr>
<tr>
<td>Last day for graduate students to file with their Dean's Office (Graduate School) for degree to be awarded in August.</td>
<td>Friday, June 12</td>
</tr>
<tr>
<td>Last day for graduate students to drop courses.</td>
<td>Tuesday, June 16</td>
</tr>
<tr>
<td>Last day to withdraw without any tuition credit.</td>
<td>Monday, June 22</td>
</tr>
<tr>
<td>First Summer Session classes end.</td>
<td>Tuesday, June 23</td>
</tr>
<tr>
<td>Reading Day</td>
<td>Wednesday, June 24</td>
</tr>
<tr>
<td>First Summer Session examinations begin.</td>
<td>Thursday, June 25</td>
</tr>
<tr>
<td>First Summer Session examinations end.</td>
<td>Friday, June 26</td>
</tr>
<tr>
<td>Degree award date recorded for first summer session degree recipients.</td>
<td>Monday, August 17</td>
</tr>
<tr>
<td><strong>Second Summer Session 1998</strong></td>
<td></td>
</tr>
<tr>
<td>Students registered for the 1998 spring term will be ACTIVATED into the 1998 summer and fall terms in preparation for telephone registration.</td>
<td>Saturday, February 28</td>
</tr>
<tr>
<td>Summer advising begins according to school policy. (See Advising Sessions in the Summer School Catalog.)</td>
<td>Monday, March 16</td>
</tr>
<tr>
<td>Telephone Registration Period I (TR I) begins according to Telephone Registration Schedule. (See Summer School Catalog.)</td>
<td>Saturday, March 21</td>
</tr>
<tr>
<td>Billing dates (See Tuition and Fees in the Summer School Catalog.)</td>
<td>Wednesday, May 13 - Wednesday, May 20</td>
</tr>
<tr>
<td>TR I closes at 5 p.m.</td>
<td>Friday, May 15</td>
</tr>
<tr>
<td>Pre-Registered Class Rolls distributed.</td>
<td>Wednesday, June 17</td>
</tr>
<tr>
<td>Telephone Registration Period II (TR II) begins for all students.</td>
<td>Thursday, June 18</td>
</tr>
<tr>
<td>Residence Halls open at noon.</td>
<td>Tuesday, June 30</td>
</tr>
<tr>
<td>Classes begin for all students. Late registration begins. $10 Fee charged for late registration.</td>
<td>Wednesday, July 1</td>
</tr>
<tr>
<td>Last day to add a course and end of late registration. No registration or course adds accepted through Telephone Registration after 5 p.m.</td>
<td>Thursday, July 2</td>
</tr>
<tr>
<td>Last day for undergraduates to file with their Dean's Office for degree to be awarded in August.</td>
<td>Thursday, July 2</td>
</tr>
<tr>
<td>Written examinations for August master's candidates may not be taken after this date.</td>
<td>Thursday, July 2</td>
</tr>
<tr>
<td><strong>HOLIDAY, July Fourth</strong></td>
<td>Friday, July 3</td>
</tr>
<tr>
<td>Tuition and Fees due for all students.</td>
<td>Monday, July 6</td>
</tr>
<tr>
<td>TR II closes at 5 p.m.</td>
<td>Wednesday, July 8</td>
</tr>
<tr>
<td>Last day to reduce course load for credit on a student's financial account. (Dropping only course requires Official Withdrawal.)</td>
<td>Wednesday, July 8</td>
</tr>
</tbody>
</table>
Last day for undergraduate students to drop courses.  

Wednesday, July 15

Verification Class Rolls distributed.

Friday, July 17

Final signed copies of doctoral dissertations and master's theses for August graduation candidates must be filed in the Graduate School.

Friday, July 17

Last day to withdraw for credit on student's financial account. (*Prorated over three weeks.*)

Wednesday, July 22

Last day for graduate students to drop courses.  

Monday, July 27

Last day to withdraw without any tuition credit.  

Friday, July 31

Second Summer Session classes end.  

Monday, August 3

Second Summer Session examinations begin.  

Tuesday, August 4

Second Summer Session examinations end.  

Wednesday, August 5

Degree award date recorded for second summer session degree recipients.  

Monday, August 17

Classes begin for all students. Late registration begins. $10 fee charged for late registration.  

Tuesday, August 18

Last day to add a course and end of late registration. No registration or course adds accepted through Telephone Registration after 5 p.m.  

Monday, August 24

Last day to reduce course load for credit on a student's financial account. (*Dropping only course requires Official Withdrawal.*)  

Monday, August 31

TR II closes at 5 p.m.  

Monday, August 31

Preliminary Class Rolls distributed.  

Tuesday, September 1

HOLIDAY, Labor Day

Monday, September 7

Freshmen Early Warning Rolls distributed.  

Wednesday, September 9

Freshmen Early Warning Rolls due to General College.  

Wednesday, September 23

Freshmen mid-term Progress Reports distributed.  

Thursday, September 24

Last day for undergraduate students to drop courses.  

Tuesday, September 29

Last day for graduate and undergraduate students to submit Pass/Fail declarations.  

Tuesday, September 29

Verification Class Rolls distributed.  

Friday, October 2

Freshmen mid-term Progress Reports due.  

Tuesday, October 6

Last day for both undergraduates and graduates to file with their Dean's Office for degree to be awarded in December.  

Friday, October 9

University Day

Monday, October 12

Incomplete (IN's) from prior terms (spring and summer 1998) change to P* for undergraduate students.  

Tuesday, October 13

FALL RECESS - Instruction ends 5 p.m.  

Wednesday, October 14

Instruction resumes 8 a.m.  

Monday, October 19

Last day to withdraw for credit on student's financial account. (*Prorated over nine weeks.*)  

Tuesday, October 20

Written examinations for December master's candidates may not be taken after this date.  

Saturday, October 31

Last day for graduate students to drop courses.  

Monday, November 23

Thanksgiving Recess. Instruction ends 1 p.m.  

Wednesday, November 25

Instruction resumes 8 a.m.  

Monday, November 30

Final signed copies of doctoral dissertations and master's theses for December graduation candidates must be filed in the Graduate School.  

Friday, December 4

Fall semester classes end.  

Monday, December 7

Absences (AB's) from prior terms (spring and summer 1998) change to P* for undergraduate students.  

Monday, December 7

Reading Day  

Tuesday, December 8
### Spring Semester 1999

Students registered for the 1998 fall term will be ACTIVATED into the 1999 spring term in preparation for telephone registration. **Saturday, September 26**

Spring advising begins according to school policy. **Thursday, October 8**

Telephone Registration Period I (TR I) begins according to Telephone Registration Schedule. **Saturday, October 17**

Billing dates (See Tuition and Fees in the Directory of Classes.) **Wednesday, November 4 - Tuesday, November 17**

TR I closes at 5 p.m. **Tuesday, November 17**

Tuition and Fees due for all students. (Students who register in TR I must pay or defer tuition and fees by this date or their schedule will be canceled and all their courses dropped.) **Wednesday, December 9**

Pre-Registered Class Rolls distributed. **Thursday, December 17**

Telephone Registration Period II (TR II) begins. **Wednesday, December 30**

Residence Halls open at 9 a.m. **Sunday, January 3**

Orientation/Academic Counseling **Monday, January 4 - Tuesday, January 5**

Classes begin for all students. Late registration begins. $10 fee charged for late registration. **Wednesday, January 6**

Last day to add a course and end of late registration. No registration or course adds accepted through Telephone Registration after 5 p.m. **Tuesday, January 12**

HOLIDAY, Martin Luther King Jr. Day (Telephone Registration closed). **Monday, January 18**

Last day to reduce course load for credit on a student’s financial account. (Dropping only course requires Official Withdrawal.) **Wednesday, January 20**

TR II closes at 5 p.m. **Tuesday, January 20**

Preliminary Class Rolls distributed. **Thursday, January 21**

Last day for undergraduate students to file with their Dean’s Office an application for degree to be awarded in May. **Friday, January 22**

Freshmen Early Warning Rolls distributed. **Friday, January 22**

Freshmen Early Warning Rolls are due to the General College. **Friday, February 5**

Last day for graduate students to file with their Dean’s Office (Graduate School) for degree to be awarded in May. **Friday, February 12**

Last day for undergraduate students to drop courses. **Wednesday, February 17**

Last day for graduate and undergraduate students to submit Pass/Fail declarations. **Wednesday, February 17**

Verification Class Rolls distributed. **Monday, February 22**

Incompletes (IN’s) from prior term (fall 1998) change to P* for undergraduate students. **Wednesday, March 3**

SPRING RECESS - Instruction ends 5 p.m. **Friday, March 5**

Instruction resumes 8 a.m. **Monday, March 15**

Last day to withdraw for credit on student’s financial account. (Tuition and fees prorated over nine weeks plus $25.00.) **Wednesday, March 10**

Written examinations for May master’s candidates may not be taken after this date. **Saturday, March 13**

HOLIDAY, Good Friday **Friday, April 2**

Last day for graduate students to drop courses. **Thursday, April 15**

Final signed copies of doctoral dissertations and master’s theses for May graduation candidates must be filed in the Graduate School. **Wednesday, April 21**

Spring semester classes end. **Thursday, April 29**

Absences (AB’s) from prior term (fall 1998) change to P* for undergraduate students. **Thursday, April 29**

Reading Day **Friday, April 30**

Spring semester examinations begin. **Saturday, May 1 - Tuesday, May 4**

Reading Day **Wednesday, May 5**

Spring semester examinations continue **Thursday, May 6 - Saturday, May 8**

Spring Commencement **Sunday, May 16**

Degree award date recorded for spring degree recipients. **Sunday, May 16**

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The spring semester 1999 calendar includes 44 class periods of 50 minutes each on MWF and 31 class periods of 75 minutes each on TTH for a total of 75 days.

### Days of Instruction

<table>
<thead>
<tr>
<th>Days</th>
<th>MWF (50 minutes)</th>
<th>TTH (75 minutes)</th>
</tr>
</thead>
<tbody>
<tr>
<td>14 - Mondays</td>
<td>15 (2200 minutes)</td>
<td>16 (2325 minutes)</td>
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<tr>
<td>16 - Wednesdays</td>
<td>15 (2200 minutes)</td>
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<tr>
<td>14 - Fridays</td>
<td>15 (2200 minutes)</td>
<td>16 (2325 minutes)</td>
</tr>
<tr>
<td>Total Days</td>
<td>44 (2200 minutes)</td>
<td>31 (2325 minutes)</td>
</tr>
</tbody>
</table>
The University of North Carolina at Chapel Hill: Administrative Officers, 1998

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Jacqueline Resnick, B.S., Director, Proposal Development Initiative
Neil Caudle, M.S., Director, Office of Information and Communication

1 Resigned 30 June 1997
2 Effective 1 July 1997
3 Effective 1 January 1998
4 Resigned 30 May 1997
5 Position reports to Chancellor
6 Resigned 31 December 1997
7 Resigned 27 May 1997
8 Effective 17 November 1997
9 Resigned 31 July 1997
10 Effective 1 December 1997
11 Effective 15 July 1997
12 Resigned 30 June 1997
13 Resigned 29 September 1997
14 Effective 18 August 1997
15 Resigned 30 November 1997
16 Effective 1 December 1997
17 Title change, Effective 1 July 1997
18 Title change, Effective 1 July 1997
19 Resigned 31 December 1997
20 Title change, Effective 1 July 1997
21 Resigned 30 June 1997
22 Effective 1 July 1997
23 Resigned 30 June 1997
24 1 July 1997 - 31 July 1997
25 Effective 1 August 1997
26 Effective 1 July 1997
27 Effective 1 July 1997
28 Effective 1 July 1997
29 1 July 1997 - 31 December 1997
30 Effective 1 January 1997
31 Resigned 12 September 1997
32 13 September 1997 - 12 December 1997
33 Effective 1 January 1998
34 Progrm relocated to General Administration, Effective 1 January 1997
35 Resigned 31 August 1997
36 Title change, Effective 1 September 1997
37 Resigned 31 January 1997
38 Effective 1 September 1997
39 Resigned 2 July 1996
40 3 July 1996 - 31 May 1997
41 Effective 1 June 1997
42 Resigned 30 June 1997
43 Effective 1 July 1997
44 Resigned 31 August 1997
45 Effective 1 September 1997
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Assistant Secretary
Brenda Kirby
UNC-Chapel Hill
CB# 9100, 103 South Bldg.
Chapel Hill, NC 27599-9100
(919) 962-1365, Fax 962-1647
The University of North Carolina at Chapel Hill: Admissions Policy

I. All qualified persons are equally welcome to seek admission to The University of North Carolina at Chapel Hill, and all persons may apply for and accept admission confident that the policy and regular practice of the institution will not discriminate against them on the basis of race, color, religion, sex, or national origin.

II. Projections of the number of students to be admitted and enrolled in any year shall be determined (a) by the capacity of the institution to meet the instructional and other needs of students in the colleges, schools, departments, curricula, or other programs to which applicants seek admission and (b) by enrollment levels approved for budgetary or other appropriate purposes.

III. When at any time the number of qualified applicants for admission exceeds the number of persons who can be admitted and enrolled (as determined by the criteria specified in II above), those to be offered admission shall be selected on the basis of (a) recognition of the institution’s special responsibility to residents of North Carolina and (b) the institution’s judgment of the applicant’s relative qualifications for satisfactory performance in the specific colleges, schools, departments, curricula, or other programs to which the applicants seek admission.

Undergraduate Admissions

Admission of undergraduate students to colleges or schools to pursue programs leading to a baccalaureate degree shall be the responsibility of the Office of Undergraduate Admissions. That office shall apply policies and procedures which, not inconsistent with policies adopted by the Board of Trustees, are approved by the Advisory Committee on Undergraduate Admissions.

In the application of the provisions set forth in III above, preference for admission shall be given to qualified residents of North Carolina; provided however, that in recognition of the educational and other values accruing to North Carolina students, to the institution, and to the State from participation of nonresident students in the programs of the institution, nonresidents may be admitted in the entering freshman class in numbers likely to result in no more than eighteen percent nonresident enrollment in the entering freshman class.

Admission of undergraduates shall be to the freshman class, to other classes by transfer after satisfactory completion of one or more years of acceptable college-level work in some other institution(s) of higher education, or to Continuing Studies. Among applicants seeking admission by transfer, normal administrative practice shall favor applicants for transfer to the junior class.

Admission and enrollment of persons who are candidates for financial aid for which athletic ability is a consideration shall be conditional upon compliance with applicable regulations of the Atlantic Coast Conference and the National Collegiate Athletic Association.

Admission to the Freshman Class

Admission to and enrollment in the freshman class shall be conditional upon graduation from secondary school with such units of secondary school academic course credit as may be specified by the Office of Undergraduate Admissions; provided, however, that if all other criteria are met, exceptions to the secondary school graduation and course credit requirements may be made by the Office of Undergraduate Admissions in accordance with procedures approved by the Advisory Committee on Undergraduate Admissions.

Criteria employed for determination of each applicant’s qualifications for admission shall include (a) satisfactory evidence of scholastic promise based upon the applicant’s previous academic record, recommendations from schools previously attended, scores on selected tests of scholastic aptitude or achievement, and the applicant’s predicted grade
average for the freshman year as determined by procedures approved by the Advisory Committee on Undergraduate Admissions; and (b) satisfactory evidence of physical and mental well-being sufficient to cope with the demands of University life.

Minimum requirements for admission and enrollment shall be a total score of 800 on the Scholastic Aptitude Test of the College Entrance Examination Board with scores of at least 350 on each of the verbal and quantitative sections thereof and a Predicted Grade Average of 1.6; provided, however, that applicants who do not satisfy these two criteria may, for sufficient reason, be admitted with the approval of the Advisory Committee on Undergraduate Admissions in each individual case.

Admission by Transfer

Admission and enrollment by transfer from another institution shall be conditional upon a satisfactory academic record on work undertaken in all other institutions attended, satisfactory recommendations from institutions previously attended, and eligibility to return to all previously attended institutions of higher education.

Continuing Studies/Admissions

Eligibility for admission to Continuing Studies shall normally be limited to individuals living within commuting distance of Chapel Hill.

Admission to Continuing Studies of an applicant who does not hold a baccalaureate degree shall be the responsibility of the Office of Undergraduate Admissions. Such admissions shall be either

(1) for full credit, applicable toward fulfillment of degree requirements, in which case the minimum requirements shall be the same as those for admission to degree programs; OR

(2) for personal benefit and enjoyment, in which case the applicant may be exempted from the qualitative requirements for admission to degree programs.

Admission to Continuing Studies of an applicant who holds a baccalaureate degree shall be the responsibility of Continuing Studies. Such admissions shall be for personal benefit and enjoyment (or for transfer of credit to a degree program) in which case the applicant may be exempted from the qualitative requirements for admission to degree programs.

Graduate School Admissions

With recognition of the institution's special responsibility to residents of North Carolina but without restrictions based on residence status, admission to the Graduate School shall be a selective process with the objective of enrolling from the pool of applicants for each discipline those students who, in the judgment of the institution, are best qualified to pursue graduate degrees in their chosen academic fields. Admission of graduate students shall be the responsibility of the dean of the Graduate School with the advice and assistance of the Administrative Board of the Graduate School and of the graduate faculties of the departments, schools, and curricula authorized to offer graduate degree programs.

For admission to the Graduate School, the applicant must

(1) hold a baccalaureate degree from an accredited college or university in the United States or its equivalent from an institution abroad,

(2) must present a strong overall record of academic achievement,

(3) must be in good standing in the last-attended institution where graduate work has been or is being taken, and

(4) must be admitted as a degree student unless there are exceptional circumstances justifying admission for nondegree study with the approval of the dean of the Graduate School.

The graduate student enrollment level for each school, department, or curriculum shall be determined for each academic year by the dean of the Graduate School following consultation with each of the schools, departments, and curricula concerned.

Professional School (Business, Dentistry, Law, Medicine) Admissions

Admission of students to the professional degree (D.D.S., J.D., M.D., M.B.A., and Master of Accounting) programs in the schools of Business, Dentistry, Law, and Medicine and to nondegree programs in the schools of the Division of Health Affairs shall be in each of these schools the responsibility of its established Committee on Admissions which shall apply policies, procedures, and requirements, not inconsistent with the provisions of this policy, adopted by the faculty of the school and approved by the Chancellor or his delegate.

Summer Admissions

1. Admission of applicants to any summer session shall be the responsibility

a. of the Office of Undergraduate Admissions with respect to those who wish to begin in the summer an undergraduate program of study that will continue into the following academic year or that is intended to lead to a baccalaureate degree from The University of North Carolina at Chapel Hill, as well as those undergraduates already enrolled in this institution who wish to return for undergraduate work in the summer;

b. of the Graduate School with respect to those who wish to begin a degree program of graduate study in the summer, as well as those graduate students already enrolled in this institution who wish to return for graduate study in the summer;

c. of the dean of the Summer School, with respect to those who wish to attend any summer session as visiting students admitted by the Summer School and who fall into neither of the categories above.
d. of the Office of Continuing Studies with respect to those who wish to begin in the summer on a part-time basis either as a postbaccalaureate student or a degree or nondegree student, as well as those already enrolled in The University of North Carolina at Chapel Hill who wish to return for part-time study in the summer.

2. Admission to the Summer School by the Office of Undergraduate Admissions, the Graduate School, and the Office of Continuing Studies shall be in conformity with the provisions set forth in this policy for other undergraduate and graduate admissions.

3. Admission to the Summer School by the dean of the Summer School shall be in conformity with policies, procedures, and requirements adopted by the Administrative Board of the Summer School; provided, however, that each such admission shall terminate as of the last day of that summer term and shall include no commitment, stated or implied, for admission of the student to any subsequent semester or session of The University of North Carolina at Chapel Hill.

4. Appeal concerning an individual admission decision may be had only if it is contended that some provision set forth herein has been violated.

Appeals concerning individual admissions decisions shall be lodged with the administrative officer (the director of Undergraduate Admissions, the dean of the Graduate School, the dean of the professional school concerned, or the Dean of the Summer School) whose office had responsibility for the admission. Thereafter appeals shall be to the Board of Trustees. Each appeal to the Board of Trustees shall be lodged with the Chancellor who shall transmit it, with the advice of the Chancellor, to the chairman of the Board of Trustees.

* This policy adopted by resolution of the Board of Trustees on September 3, 1976.
* Amended by Board of Trustees, August 24, 1984.
* Amended by Board of Governors, March 14, 1986.
* Amended by Board of Trustees, May 27, 1994
Undergraduate Admissions

The Office of Undergraduate Admissions will assist in any way possible students interested in continuing their education at The University of North Carolina at Chapel Hill. Applications from nonresidents are encouraged, but, because of nonresident limitations, students must have particularly outstanding qualifications in order to be competitive.

Admission Requirements

The admissions process at The University of North Carolina at Chapel Hill is necessarily a selective one. A student's high school record (course difficulty and performance) and test scores are important elements in admissions decisions, but other accomplishments and personal qualities are also relevant, since the University seeks a diverse body of students.

By their anticipated date of enrollment, candidates for admission should have reached the age of sixteen and must have graduated from an approved or accredited secondary school. In addition, the University asks that candidates present evidence of physical and mental well-being sufficient to cope with the demands of university life.

Items Necessary for a Complete Application

Freshman Admission

The completed application will include:
A. Official transcript(s) from approved secondary school(s).
B. Official SAT and/or ACT scores.
C. Recommendation from the current school or school last attended. (If the candidate is in a new school for the first time, an additional recommendation from the previous school is suggested.) If the policy of the school forbids subjective recommendations, the University will accept the transcript alone, as long as it is signed by the principal or guidance counselor.

NOTE: Current federal legislation allows students enrolling at the University access to their files. Students do not have access to their applications.
D. Students are encouraged to furnish any information that will enhance the University's understanding of their background and preparation for college.
E. Application fee of $55.00 (nonrefundable).
F. Any additional items or information requested in the application materials or by the Office of Undergraduate Admissions.

Transfer Admission

The completed application will include:
A. Official transcript from each college attended, including summer sessions.
B. Transcript showing high school units (Grades 9 thru 12).
C. Application fee of $55.00 (nonrefundable).
D. Any additional items or information requested in the application materials or by the Office of Undergraduate Admissions.

High School Course Requirements

The University suggests that a student present for admission a strong college preparatory program. Such a program should include honors and advanced placement courses if these courses are available and if the student's enrollment in these courses is academically appropriate. Prospective students also are encouraged to complete as many college preparatory courses as the high school program will allow. THE DIFFICULTY OF COURSES SELECTED BY THE STUDENT WILL BE A FACTOR IN THE ADMISSIONS DECISION.

To be considered for admission a student should present these minimum high school course requirements (including the 9th grade): four units of English; at least three units of college preparatory mathematics (two algebra and one geometry or a higher level mathematics course for which algebra II is a prerequisite); at least two units of a single foreign language; three units in science, including at least one unit in a life or biological science and at least one unit in a physical science, and including at least one laboratory course; two units of social science including United States history; and enough elective units in traditional academic areas (literature, mathematics, physical and biological sciences, social sciences, and foreign languages) for a total of sixteen units. Admitted students will take placement exams in math and foreign language; therefore, it is preferred that students continue in advanced levels of math and foreign language courses during their final year in high school even if they have already met the minimum requirements in these fields.

Placement in courses during students' first semester at the University will be based on their performance on placement tests. Although the student will take placement exams in some subjects at the University before the first semester begins, it is to the student's advantage to take placement tests in high school, especially those accepted by the University for placement purposes. Foreign language place-
ment may be based on SAT-II and College Board Advanced Placement tests, which are offered by the Educational Testing Service. English placement is based on the SAT-II and College Board Advanced Placement tests as well as on CEEB verbal SAT scores and ACT scores. Students also are encouraged to take standardized tests that are recognized for placement in other subject areas. Entering freshman students are required to present the results of the SAT-II C test for placement purposes only.

**College Board Placement Tests**

The University recognizes for placement and degree credit, satisfactory scores on the College Board Advanced Placement and certain SAT-II, CLEP, and Dantes tests. For more specific information, please contact the Admissions Office.

Information about College Board tests, and applications for specific tests, may be obtained by writing the Educational Testing Service, Box 592, Princeton, NJ 08504 or Box 025, Berkeley, CA 94707. Applicants should apply to take a test six to eight weeks in advance of the actual test date.

**Transfer Candidates**

Transfer applicants who graduated from high school in 1988 and after must present the following sixteen academic units from high school in order to be eligible for admission consideration:

- four years of English;
- three years of mathematics (2 algebra and 1 geometry);
- three years of natural science (1 biological, 1 physical, and at least 1 laboratory course);
- two years of social science (1 must be U.S. history);
- two years of the same foreign language;
- two additional years of academic electives.

For those enrolling in the fall of 1990 and thereafter, transfer applicants deficient in any of the minimum admission requirements will be eligible for transfer consideration only if one of the following conditions is met:

A. Twenty-four transferable semester hours in the following areas: six semester hours of acceptable college level English (not to include remedial courses) six semester hours of acceptable college level mathematics (not to include remedial courses; college algebra is considered remedial at UNC-Chapel Hill) six semester hours of acceptable college level social science six semester hours of acceptable natural sciences

OR

B. Applicant must hold an Associate of Arts, Associate of Fine Arts, or Associate of Science degree from a regionally accredited institution prior to enrollment at UNC-Chapel Hill.

Students who have completed or who will complete two years of college prior to their intended enrollment are encouraged to apply for transfer admission. The University will also accept a small number of sophomore transfer students.

In order to be considered for transfer admission, students must present at least a C average (2.0 on a 4.0 system) in all courses undertaken at other accredited colleges and universities. However, a much higher average is required to be competitive. Students also must be eligible to return to all institutions previously attended. A student who is academically ineligible for consideration as a transfer student may count course work completed through the Independent Studies program toward raising his/her outside grade point average to transfer to the University. However, course work completed in The University of North Carolina at Chapel Hill Summer School cannot be used to establish eligibility to be considered as a transfer applicant.

Once admitted as a transfer student, any course credits received at UNC-Chapel Hill in a prior summer session become part of the official transcript of the student and grades received are included in the grade point average. Due to space limitations, the University usually cannot admit all the students who meet minimum standards.

Transfer candidates are categorized by class, based on the acceptability of their transfer credit and on the number of college terms in residence (one term in residence is the equivalent of one term of full-time enrollment). The categories are: one term and less than twenty-four semester hours of transfer credit for freshmen; two or three terms and twenty-four to fifty semester hours for sophomore standing; three, four, or five terms and fifty-one to eighty-four semester hours for junior standing; and six terms or more and eighty-four or more semester hours for senior standing. Students presenting more than eighty-four semester hours should realize that we give priority to junior transfers. Transfers with less than junior standing must meet both freshman and transfer eligibility requirements.

**Transfer of Credit**

The University will transfer, for degree credit, courses from other accredited institutions when the student has made a satisfactory grade (usually a C or its equivalent) and when a similar course is offered by the University. Students should expect difficulty in transferring professional course work. Course work from nonaccredited institutions (including foreign institutions) must be approved through departments at this University. Transfer credit for having fulfilled certain course requirements is granted for the lowest passing grade, but credit hours for the lowest passing grade will not be transferred. Hours will not be withheld for courses in which a grade of "C-" (C minus) is earned; however, the student's dean will determine if the course(s) may be applied towards the degree.

The University will consult two publications when settling questions that arise concerning the transfer of credit: Transfer Credit Practices, published by the American Association of Collegiate Registrars and Admissions Officers, and Accredited Institutions of Post-Secondary Education, published by the American Council on Education.
A student who feels qualified may challenge any University course by asking to be examined on the material taught in the course. A passing grade on this validating examination will earn degree credit.

Students seeking transfer to the University will wish to plan their courses at their current institution in a way which will ensure the transfer of their course work. The University encourages such prior course planning, and the Office of Undergraduate Admissions will assist prospective transfer students with it.

The University will accept a maximum of sixty-four semester hours of transfer credit from a two-year institution or from a combination of two- and four-year college enrollment when the four-year college enrollment precedes the two-year college enrollment. However, students who have sixty-four semester hours of college credit cannot transfer additional credit from a two-year institution. Physical education courses taken at another institution will count toward the University’s physical education requirement but not for degree credit.

Transfer students must satisfy the freshman entrance requirements of this University, even where these differ from the requirements of the previous institution attended. For information on language requirements for transfer students, see the General Education Requirements section.

Transfer Applications

Transfer students will be notified beginning in January after receipt of fall term grades.

Priority in transfer admissions is extended to students who have completed two full academic years of course work (with fifty-one transferable academic semester hours) prior to their proposed entrance date. Courses completed in summer (immediately prior to fall enrollment) are not used in determining junior standing. The University does not recommend transferring after three years of college work, since at least half of the major courses, and the last forty-five hours toward the degree, are required to be taken in residence.

Programs with Limited Admissions

Prospective transfer students are advised that only a small number of transfer students will be admitted in the majors of Journalism and Mass Communication, Education, and the Allied Health Programs. Transfers are not admitted directly to the Kenan-Flagler Business School. Students interested in one of these fields may wish to consider another major as a second choice; however, even if admitted to an alternate program students cannot be guaranteed subsequent admission to their first choice of major. In addition, notification of acceptance to these programs is generally later than for other programs.

Health Program Majors

Applicants for any of these programs must apply by December 1 for the fall semester. After completion of the fall semester a transcript of that semester’s work should be sent. They should also contact the specific department for additional application materials.

The bachelor degree in Physical Therapy has been discontinued. A new entry-level master’s degree has been created.

Applicants for the Pharmacy program must submit Pharmacy College Admission Test scores.

Education Majors

Transfer students should take the Communication Skills and General Knowledge tests of NTE before the end of the sophomore year, preferably in the fall of that year. Official scores on these exams should be sent with the application if possible, or soon thereafter. Some provisional admissions may be made pending receipt of scores.

Music or Dramatic Art Majors

Students applying as music majors should contact the director of undergraduate studies in music at 101 Hill Hall to arrange an audition. (Please indicate whether you wish to study voice or an instrument; if an instrument, please indicate which one.) Students applying to major in the dramatic arts should contact the director of undergraduate studies in dramatic arts at 105 Graham Memorial.
Fall/Winter Grades
The fall and winter grades should be mailed to the University as soon as they become available. Any application will be considered incomplete without them and will not be reviewed until they arrive.

Confirmation of Acceptance
The University requires a nonrefundable $175.00 enrollment/housing deposit. This is due by May 1 for fall admission, or, for students admitted after the deadline or for the spring term, it is due within two weeks of receipt of the letter of admission.

Degree candidates starting in summer school who intend to continue in the fall must pay their summer fees as well as the fall term deposits in order to reserve a space for the fall term.

Admission of International Students
International students are considered for admission on the same basis as native candidates. An international student should present College Board Scholastic Aptitude Assessment Test results as well as transcripts from previous schooling. International students should also submit results on the Test of English as a Foreign Language (TOEFL) in support of their application.

U.S. Immigration law requires proof of financial support for the student’s entire program of study. Before admission, applicants must provide documentation that they have sufficient funds in a bank to cover the first year’s tuition and living expenses. See the Financial Aid section for information on expenses. The University will issue the necessary visa documentation to those students who are formally admitted to the University. International students should not leave their native country intending to enroll at the University until they have received a formal letter of acceptance and appropriate visa documents.

Questions concerning international student life on the UNC-Chapel Hill campus should be referred to the Foreign Student Adviser, Carolina Union, CB# 5240, The University of North Carolina at Chapel Hill, Chapel Hill, North Carolina 27599-5240.

Readmissions
Any student who withdraws or for any other reason fails to complete a semester must apply for readmission through the Office of Undergraduate Admissions. Students applying in this manner must pay a nonrefundable $55.00 application fee. Application for readmission should be made as early as possible and in no case later than two weeks before the opening of the semester.

A student leaving the University with an academic deficiency must restore his or her eligibility in order to be readmitted as a regular student. Restoration of eligibility can be accomplished only by enrolling in summer sessions or through correspondence instruction from the University (see below).

Students who have enrolled in course work at another college or university since their last enrollment at The University of North Carolina at Chapel Hill must submit transcripts of this course work and must have maintained a C average for all such course work attempted in order to be eligible for readmission. The grade point average (GPA) required for eligibility is based on all semesters in residence on all campuses.

Students leaving the University for medical or disciplinary reasons must be cleared by the appropriate office before being readmitted.

The University must adhere to enrollment projections; therefore readmission is not guaranteed even if the student is academically eligible.

Admission as a Summer School Visitor
Any student who has not been regularly enrolled or has not been admitted for the fall semester in any school in the University should send his/her application for admission as a visiting summer student to the Dean of Summer School, CB# 3340, 134 E. Franklin St. Those students who are in residence at the University will preregister or register for a summer session through their academic dean or adviser, and need not make a separate application to the dean of summer school. A student who plans to restore academic eligibility through work done in a summer session must apply to the Office of Undergraduate Admissions, CB# 2200, Jackson Hall.

Admissions Confidentiality
The University of North Carolina at Chapel Hill will protect the privacy of all students seeking admission through the Office of Undergraduate Admissions by soliciting and receiving all academic and nonacademic records obtained for the purpose of admission on the condition that they be held in confidence by the University. No information obtained through the admissions process will be shared with individuals, internal or external to the University, other than the Chancellor, the Executive Vice Chancellor, the Provost and members of the Advisory Committee on Undergraduate Admissions, and its subcommittees.

Exceptions to this policy will be made only at the direction of the Chancellor or the Executive Vice Chancellor.

Further Information
For additional information and services related to the admission of freshmen and transfer students, contact the Director of Undergraduate Admissions, CB# 2200, Jackson Hall, The University of North Carolina at Chapel Hill, Chapel Hill, North Carolina 27599-2200.
Intra-University Transfer

Transfer from one school or college within the University is possible with the approval of both academic deans concerned.

Other Credit Programs

Independent Studies

(Correspondence Courses)

In addition to the courses listed in this Bulletin, many undergraduate courses are available through Independent Studies (correspondence courses). The Independent Studies program allows students to enroll at any time, to work at their own pace, and to take up to nine months to complete a course.

Application for Independent Studies courses is made to the Office of Independent Studies, Friday Center, CB# 1020, telephone (919) 962-1134. Application forms and a complete catalog of course listings may be obtained from the same office.

A student may earn thirty semester hours of credit toward a degree at The University of North Carolina at Chapel Hill through Independent Studies courses. Students found academically ineligible to continue in resident study at the University may restore their eligibility through Independent Studies courses. Students attending classes may not enroll in an Independent Studies course at the same time without the written consent of their deans.

Carolina Courses Online

Carolina Courses Online is a distance education program that offers courses via the Internet. Class sessions are not required, but courses generally follow the semester schedule. Access to the World Wide Web and e-mail are required in order to enroll. The courses are administered through the Division of Continuing Education, (919) 962-1134.

Admission to Continuing Studies

Continuing Studies is the academic unit through which area adults enroll in University courses part-time. Both undergraduate and postbaccalaureate students are admitted without respect to race, color, national origin, religion, sex, age, or handicap.

Continuing Studies students may register for a maximum course load of eight credit hours per semester. A selection of courses is scheduled for the evening hours; the University’s daytime courses are also open to Continuing Studies students if space permits.

Undergraduates desiring to enroll through Continuing Studies should file an admission application and nonrefundable $55.00 application fee with the Office of Undergraduate Admissions, CB# 2200, Jackson Hall, The University of North Carolina at Chapel Hill, Chapel Hill, NC 27599-2200.

Admission is limited; preference is given to students who have been away from a traditional school setting for at least one year and to UNC-Chapel Hill faculty/staff employees. Traditional students who have been denied full-time admission to the University are not admitted to Continuing Studies. All students admitted as prospective degree candidates must meet minimum University requirements for admission.

Students who have a baccalaureate degree can apply online at www.adp.unc.edu/sis/admissions/cspreapp.html or by requesting an application from Continuing Studies, CB# 1020, Friday Center, Chapel Hill, NC 27599-1020.

Admission to Continuing Studies does not constitute admission to a degree program at the University. Undergraduates must be accepted for transfer into one of the degree-granting schools or colleges of the University. A minimum of forty-five hours of academic credit must be taken at UNC-Chapel Hill, with at least twenty-four of the last thirty hours being taken on the UNC-Chapel Hill campus. Postbaccalaureate students must apply and be accepted to a graduate degree program.

Continuing Studies students who have not registered for a semester or more should apply for readmission at least thirty days prior to the start of the term of their return. Online readmission applications can be found at: www.adp.unc.edu/sis/admissions/cspreapp.html.

Orientation and New Student Registration

In June prior to their first semester in residence, freshmen will receive from the General College An Academic Self-Advising Manual and other academic materials. Each student is asked to respond to the information supplied in the manual by completing a worksheet and returning it to the General College. Upon receipt of the completed worksheets, the General College advisers prepare fall semester registrations for the incoming freshman class. Transfer students who will be entering an upper college follow a similar routine.

During the summer preceding their first semester in residence at the University, freshmen and their parents are invited to participate in one of several Testing and Orientation Program Sessions (TOPS). TOPS days provide foreign language and mathematics testing for proper course registration in the fall.

In addition, they offer a wide range of programs intended to introduce new students and their parents to Chapel Hill, to acquaint them with the academic opportunities available to undergraduates, to aid them in the adjustment to campus living, and to offer other information, discussion, and academic advice. New student orientation continues when the students arrive in the fall for registration and classes.
** Admission may be granted if the student meets the requirements of and is accepted by the individual school.

***Admission for all other postbaccalaureate programs (except the J.D., M.D., D.D.S., M.B.A., and Master of Accounting degrees) is through the Graduate School.

*The junior and senior years of the Medical Technology and Radiologic Science curricula are administered by the School of Medicine.

**The junior and senior years of Public Health are administered by the School of Public Health.
General Education Requirements and Requirements for the Major

Undergraduates at the University must fulfill the General Education requirements common to most fields of study and the more specialized requirements of their major field. The General Education requirements fall under two headings: Basic Skills (English composition, foreign languages, and mathematical sciences) and Perspectives (Aesthetic, Natural Sciences, Philosophical, Social Sciences, and Western Historical/Non-Western/Comparative).

The faculty believe that General Education rests upon the knowledge and practice of the Basic Skills. These include the ability to: write clearly, read critically, speak effectively, comprehend a foreign language, use mathematics, reason analytically, understand abstract ideas.

To impart and polish these basic skills, the curriculum requires training in English composition and rhetoric, a foreign language, and mathematical sciences.

The five Perspectives requirements build upon students' knowledge of the Basic Skills and ask them to learn both the content and the methodologies of several disciplines. Students must take courses in the Aesthetic Perspective (literature and the fine arts), the Natural Sciences Perspective, the Philosophical Perspective, the Social Sciences Perspective, and the Western Historical/Non-Western/Comparative Perspective.

These Basic Skills and Perspectives requirements make up the core of the General Education curriculum. The Basic Skills requirements (four to five courses) apply to all students. The Perspectives requirements fall into two categories: nine courses are required of all freshmen and sophomores by the General College. Four more courses, selected from four of the five perspective areas, are required of juniors and seniors pursuing the degree of Bachelor of Arts in the College of Arts and Sciences. These requirements are detailed in the following sections.

Effective fall 1994, all first-year students (regardless of major) entering UNC-Chapel Hill must take a cultural diversity course from an approved list.

Effective fall 1998, all first-year students (regardless of major) entering UNC-Chapel Hill must also fulfill an oral communication requirement.

Basic Skills

Writing and Oral Communication

The faculty of the General College and the College of Arts and Sciences expect students to write and speak effectively. Instructors should help students realize that there is a direct relationship between thinking clearly, writing clearly, and speaking clearly. Faculty in all disciplines and professions should therefore develop the writing and speaking skills of their students. Students should expect to be graded on spelling, grammar, and style, as well as on the content and organization of their written work; in addition, students should expect to be graded on presentation, style, poise, and diction, as well as on the content and organization of their oral presentations.

English Composition and Rhetoric

All students at the University must pass English 11 and English 12 or satisfy the freshman honors literature requirement English 29/29W, Classics 29, Germanic Languages 29, Slavic Languages 29, or Romance Languages 29. These courses develop the skills of writing, reasoning, and argumentation, which are necessary to the entire educational endeavor. Students may prepare for these courses while in high school by taking courses in English composition and literature and speech communication beyond the four years of English required for admission to the University. Students who have had such preparation usually perform better in their classes than those who have not.

Placement in English composition is determined by the student's score on the Verbal SAT, the College Board Achievement Test, or the Advanced Placement Test in composition. Those who feel their test scores do not accurately reflect their writing and speaking abilities may take a Written and Oral exam offered by the English Department. If placement scores or the exam indicate a need for instruction and practice in preparation for English 11, students will pass the developmental course English 10 before taking English 11.

Regardless of placement, continuous enrollment is required until the series of English Composition and Rhetoric courses is completed. Any student whose native language is not English will be required to pass English 11-12 like other students. However, that student will be permitted to waive, without credit, the foreign language requirement up to or through level 4. An authorized representative of the appropriate University department must confirm the student's proficiency in the language up to that level in order for the waiver to be granted.

Writing Skills

Students who wish to improve their writing can make appointments with a tutor in the Writing Center. This free, noncredit service is available to any member of the University community. Faculty members who identify weak writers should refer them to the Writing Center as early as possible in the semester in order to ensure maximum benefit from tutorial instruction. In cases that seem especially severe, faculty may recommend that a student attend tutorials at the Writing Center as a requirement for passing the course.
Oral Communication Skills

Effective fall 1998, all first-year students (regardless of major) entering UNC-Chapel Hill who are exempted from taking English 11 and English 12 (Composition and Rhetoric) must, in order to graduate, pass with a letter grade a one-hour course entitled Oral Communication (COMM 09). (Honors students fulfill this requirement by passing their equivalent courses for English 12.) This Oral Communication course is also available to students who are enrolled in or have received credit for Composition and Rhetoric.

Foreign Languages

The study of a foreign language enables students to see more clearly the nature and structure of their own language while gaining an understanding of a foreign culture.

Students should improve their language preparation by continuing their foreign language study through the senior year of high school. It is preferable that they complete four years of one high school language rather than, for example, taking two years of each of two different languages.

Placement in a foreign language is determined by the student’s score on the College Board Achievement Test, the Advanced Placement Test in a foreign language (taken at the completion of language study in high school), or the appropriate placement test administered by the University during freshman orientation.

All first-year students entering the University after May 15, 1990, must meet the foreign language requirements described below in order to fulfill the General Education Basic Skills requirement in the General College. These same requirements apply to sophomore transfers admitted after May 1, 1991, and to junior transfers admitted after May 1, 1992.

Students admitted to the University before the aforementioned dates should consult their academic dean about their foreign language requirements and the application of transfer credit for foreign language courses taken at another college or university toward the fulfillment of their foreign language requirement.

In the following statements, “high school foreign language” is defined as completion of two or more years of courses in the same high school foreign language.

Students whose foreign language placement is below level 4 of their high school foreign language and who wish to continue in this language must complete through level 3. Credit hours toward the 120-academic hour graduation requirement are not awarded for level 1, if students place into level 1 (with the exception of Japanese). Grades earned in level 1 courses, however, are computed in the students’ grade point average and are used in all academic eligibility and academic load considerations.

Students who enroll in a foreign language other than their high school foreign language are required to complete through level 3. In this case, credit hours towards fulfilling the 120-academic hour graduation requirement are awarded for successful completion of level 1.

Students whose placement is level 4 of their high school foreign language and who wish to continue in that language must complete through level 4. Placement credit is awarded for level 3 upon successful completion of level 4. Students whose placement is beyond level 4 of their high school language have fulfilled the foreign language requirement and are awarded placement credit for levels 3 and 4.

Some undergraduate degree programs require the completion of foreign language courses beyond that needed to fulfill the General Education Basic Skills requirement. Academic advisers will inform students if their degree programs require completion of additional foreign language courses.

The courses listed below may be used to satisfy the foreign language requirements:

- Arabic 101, 102, 141, 142
- Bulgarian 101, 102, 103, 104
- Chinese 1, 2, 3, 4
- Czech 101, 102, 103, 104
- French 1, 2, 1-2, 2X, 3, 4, 3-4
- German 1, 2, 1-2, 3, 4, 3-4
- Greek 1, 2, 3, 4
- Hindi 101, 102, 103, 104, 1-2
- Italian 1, 2, 3, 4
- Japanese 101, 102, 103, 104
- Kiswahili 1, 2, 1-2, 3, 4, 3-4
- Latin 1, 2, 3, 4
- Macedonian 101, 102, 103, 104
- Polish 101, 102, 103, 104
- Portuguese 1, 2, 1-2, 3, 4, 3-4
- Religious Studies (Hebrew) 113, 114, 115, 116
- Russian 1, 2, 1-2, 3, 4, 3-4
- Serbo-Croatian 101, 102, 103, 104
- Spanish 1, 2, 1-2, 2X, 3, 4, 3-4

Mathematical Sciences

Through the study of mathematics students reinforce or acquire the ability to reason and to use analytic and quantitative ideas in both theoretical and applied contexts. In today’s world of fast-paced scientific and technological advances, the importance of such skills cannot be overstated.

Students should prepare by taking precalculus and/or calculus in high school and by continuing their mathematical studies up through their senior year of high school. Not to do so may put them at a disadvantage in the University.

Placement in the mathematical sciences will be determined by scores on the College Board Achievement Test (Level I or II), the Advanced Placement Test (AB or BC), or a placement test given during Freshman Orientation. Students whose placement scores indicate a weakness in basic algebra
skills may take Math R, a review course in high school algebra. Math R carries three credit hours for purposes of determining a student’s GPA, eligibility, or financial aid status, but does not count toward the 120 academic hours required for graduation.

All first-year students entering the University after May 15, 1990, must meet the new mathematical sciences requirements described below in order to fulfill the General Education Basic Skills requirement in the General College. These same requirements apply to sophomore transfers admitted after May 1, 1991, and to junior transfers admitted after May 1, 1992.

Students admitted to the University before the aforementioned dates should consult their academic dean about their mathematical sciences requirements and the application of transfer credit for mathematical sciences courses taken at another college or university toward the fulfillment of this requirement.

Students who place into Mathematics 10 (Algebra) are required to complete Mathematics 10 and one additional course selected from the approved mathematical sciences course list. Students who place above Mathematics 10 are exempted from this course requirement and are required to complete one course selected from the approved mathematical sciences course list. Placement hours are not awarded for exempting Mathematics 10.

Some undergraduate degree programs require completion of specific mathematical sciences courses beyond those needed to fulfill the General Education Basic Skills requirement. Academic advisers will inform students if their degree programs require completion of additional mathematical sciences courses.

Exemption from Mathematics 10 or successful completion of this course is a prerequisite for enrolling in any course on the approved mathematical sciences course list given below. Placement scores that allow students to exempt Mathematics 10 may initially exclude these students from some of these courses.

The Basic Course list provides courses that do not require a specific prerequisite (first group of courses). However, some students may be advised to complete Mathematics 10 before proceeding to Mathematics 30 or complete Mathematics 30 before proceeding to Mathematics 31. If the equivalent of Mathematics 10 is completed at another institution with at least a grade of C, exemption from the Mathematics 10 requirement is granted. However, no transfer credit hours toward fulfilling graduation requirements are awarded for the successful completion of this course. Additionally, transfer credit for any mathematical sciences course on the Basic Course list (for which Mathematics 10 is a prerequisite) exempts a student from the Mathematics 10 requirement. On the other hand, students with advanced placement, exceptional ability, or superior performance may select a course from the second list (Courses with Prerequisites) consisting of courses that have been one of the basic courses as a prerequisite.

### Basic Courses
- General interest math courses: Mathematics 16, 17, 18
- Precalculus: Mathematics 30
- Calculus for business/social sciences applications: Mathematics 22
- Calculus for natural/mathematical sciences: Mathematics 31
- Computer programming: Computer Science 14, 15
- Statistics: Statistics 11
- Logic: Philosophy 21, 71

### Courses with Prerequisites

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<tr>
<th>Prerequisite</th>
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<tbody>
<tr>
<td>Mathematics 22</td>
<td>Statistics 23, OR 14</td>
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### Perspectives

#### Aesthetic Perspective

Two courses are required in order to fulfill the Aesthetic Perspective: one in literature and one in the fine arts. The purpose of this requirement is to enable students to explore the varieties of artistic creation and to realize how the full range of human experience is given expression in the arts.

### Fine Arts
- AFAM 45 (=ART 40)
- ANTH 23
- ART 1, 2, 10, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40 (= AFAM 45), 43, 64 (=WMST 64)
- COMM 41
- DRAM 15, 16, 20
- ENGL 42
- GERM 68
- HNRS 27, 40
- MUSC 21, 31 & 31L, 40, 41, 42, 43, 45, 46
- PHYE 93
- WMST 64 (=ART 64)

### Literature
- AMST 34H, 35H
- CLAS 29, 30 (=CMPL 30), 31, 33, 35, 36, 61, 62, 77
- CMPL 21, 22, 30 (=CLAS 30)
- COMM 60
- ENGL 20, 21, 22, 23, 23W, 24, 25, 25W, 26, 28, 29, 29W
- FREN 21, 40, 41
- GERM 21, 29, 40, 41, 44 (=WMST 44)
- GREEK 21
- HIND 105, 106
- HNRS 28, 41, 50
ITAL 40, 41, 42
LATN 21
PORT 35, 40
RELI 55, 82
ROML 29
RUSS 50, 70, 74
SLAV 29, 48
SPAN 21, 35, 40, 46
WMST 44 (=GERM 44)

Natural Sciences Perspective
Two courses are required for the Natural Sciences Perspective. At least one of these must include a lecture course with a complementary laboratory (i.e., Chemistry 11 and 11L, Biology 11 and 11L, or Astronomy 31 and 31L, etc.). It is important for students in today’s technologically complex world to develop an understanding of the methodology and some of the content of the sciences. Those students who have exceeded their minimum high school science requirement are at an advantage in the University’s science courses.

Basic Courses
Required Lab
BIOC 7, 8
BIOL 41, 43, 45, 47
GEOI 41
PHYS 20, 24, 26, 27, 28 & 28L

Optional Lab
ASTR 31 & 31L
BIOL 11 & 11L, 63 & 63L, 72 & 72L, 73 & 73L, 80 & 80L
GEOI 11 & 11L, 16 & 16L, 18, & 18L

Without Lab
ANTH 43, 48
BIOL 10, 50, 54
ECOL 36
ENVR 51
GEOG 10, 11, 12
GEOI 12 (=MASC 12), 13, 15, 42, 46, 48
HNRS 29, 47
MASC 12 (=GEOI 12)
PHYE 76
PHYS 16
PSYC 10

Philosophical Perspective
One course is required to fulfill the Philosophical Perspective. Students will investigate moral and ethical issues, and develop the ability to arrive at reasoned viewpoints.

AMST 34H, 35H
ANTH 46
COMM 73 (=PWAD 60)
COMP 96
ECOL 59
HNRS 32, 46
LING 35 (=PHIL 35)
PHIL 20, 22, 24, 31, 32 (=RELI 32), 33, 34, 35 (=LING 35), 37, 38
POLI 47H, 61, 62, 63, 64, 67 (=WMST 67)
PWAD 60 (=COMM 73)
RELI 21, 22, 30, 31, 32 (=PHIL 32), 35, 36, 37, 43, 58, 68
SOCI 50
WMST 67 (=POLI 67)

Social Sciences Perspective
Two courses from different departments are required to satisfy the Social Sciences Perspective. The courses study social institutions and social evolution. The methodology of the social sciences is an important element of this Perspective requirement.

ANTH 10, 40 (=FOLK 40), 44, 45, 49, 51, 62
ASIA 89
CLAS 26
COMM 40, 62, 75
ECOL 35
ECON 9, 10
FOLK 40 (=ANTH 40)
GEOG 20 (=PWAD 20), 22, 23, 28, 30
HNRS 30, 45, 50
JOMC 11
LING 30
NURS 52
PHIL 36
PHYS 37
POLI 41, 42, 52, 66, 70, 75, 86 (=PWAD 86)
PWAD 20 (=GEOG 20), 86 (=POLI 86)
RELI 74, 78
SOCI 10, 12, 15, 20, 22, 23, 30, 31, 33
WMST 50

Western Historical/Non-Western/Comparative Perspective
Two courses are required. One must cover a period of Western history before 1700. The other may be another Western history course, spanning at least two centuries if the first course did not, or it may be a non-Western or comparative course. Students will choose at least one course from the first column below and may choose the other from any column below. The purpose of the requirement is to develop in students an appreciation of the cultural heritage of the Western world. By studying a non-Western culture, or comparing Western and non-Western cultures, students broaden their understanding of their own culture and of the world.

Pre-1700 Western History
All courses span two centuries
AFAM 40
ART 20 (=CLAR 20), 42 (=CLAR 50), 49 (=CLAR 49)
CLAR 20 (=ART 20), 49 (=ART 49), 50 (=ART 42)
CLAS 20, 21, 34, 44, 45 (=WMST 45)
HIST 5H, 11, 14, 15, 16, 27, 52, 53, 55, 56
HNRS 36, 43
RELST 24, 27, 56, 59
WMST 45 (=CLAS 45)
Other Western History
AFAM 41
AMST 20, 34H, 35H, 40
ART 41 (=CLAR 41)
CLAR 41 (=ART 41)
COMM 74
ECON 36
HIST 6H, 7H, 8H, 12, 17, 21, 22, 28, 31, 59 (=WMST 59), 63A
(=PWAD 63), 92B (=RELI 29)
HNRS 39, 42
PWAD 63 (=HIST 63A)
RELI 29 (=HIST 92B), 46, 71, 72
WMST 59 (=HIST 59)

Non-Western/Comparative
AFRI 40, 66
ANTH 20, 26, 42, 47, 50, 55 (=ASIA 55)
ASIA 33 (=HIST 33), 34 (=HIST 34), 39 (=RELI 39),
54 (=POLI 54), 55 (=ANTH 55), 69 (=RELI 69),
85 (=POLI 85)
CHIN 50, 51
CLAR 47, 48
ECON 67
GEOG 59
HIST 4H, 18, 18H, 19, 24, 25 (=LTAM 47), 30, 33 (=ASIA 33), 34
(=ASIA 34), 36 (=RELI 25), 37 (=RELI 26), 38, 39, 41, 42,
77, 78, 79
HNRS 31, 44
LTAM 47 (=HIST 25)
POLI 54 (=ASIA 54), 55, 56, 57, 59, 60, 85 (=ASIA 85)
RELI 10, 20, 25 (=HIST 36), 26 (=HIST 37), 39 (=ASIA 39), 40,
60, 62, 69 (=ASIA 69)
SLAV 30
SOCI 11

Courses Approved for the Cultural Diversity Requirement:
AFAM 9, 40, 41, 45, 55, 58, 60, 62, 63, 65, 66, 69, 70, 73, 74, 75,
76, 77, 81, 90, 94A, 112, 128, 130, 160, 169, 174, 180
AFRI 40, 60, 61, 62, 63, 64, 65, 66, 120, 121, 122, 123, 124, 130,
131, 174
ANTH 10, 26, 40, 42, 44, 49, 50, 58, 77, 80, 82, 84, 90, 100, 120,
121, 123, 132, 140, 141, 142, 143, 144, 146, 150, 155, 161, 162,
165, 166, 170, 177, 186
ART 40, 61, 73, 81
ASIA 82, 89, 145, 192
CLAS 42, 45
COMM 24, 63, 80, 122, 160
DRAM 86, 171
ECON 163
ENGL 65, 73, 84, 85, 90, 90B, 94A, 94I, 146, 189, 196
FOLK 40, 103, 107, 108, 132, 142, 146, 148, 155, 171, 189, 190
GEOG 59, 125, 138, 168
GERM 94B
INTS 77, 80
JOMC 111, 112
LING 72, 75
LSRA 112
LTAM 40
MUSI 46, 104, 132, 133, 134
PHIL 46, 55
POLI 47H, 119, 171
PORT 35
PSYC 171, 184, 190
PWAD 80, 120, 121, 196
RELI 24, 31, 43, 45, 68, 79, 80, 90, 120, 142, 157, 185, 190, 192
SLAV 30, 75, 169
SOCI 10, 20, 21, 22, 24, 30, 80, 111, 121, 129, 150, 158, 168
SPAN 53, 54
WMST 24, 42, 45, 46, 50, 56, 61, 62, 65, 71, 90B, 125, 129, 130,
140, 141, 146, 169

Honors Seminars
Honors Seminars are offered in all the Perspectives; these are available to students in the Honors program and to others by permission. They may be used to complete the Perspectives requirements. Details are available through the Honors Office.

Qualified students are permitted to fulfill some General College requirements with courses chosen from the lists of upper-level requirements.

Physical Education Requirement
All students must pass a swimming test and complete two physical education activities courses. These are one hour each and are not counted toward the graduation requirement of 120 academic hours.

General Education: Juniors and Seniors
During their junior and senior years, students seeking the Bachelor of Arts degree must complete General Education requirements by passing upper-level perspective course-
work in four of the five perspective areas. Students who choose two Western historical courses to fulfill their General College historical perspective requirements must take an upper-level non-Western/comparative course as one of their four upper-level Perspectives. These courses may not be taken pass/fail. None of the courses may be in the student's major (or second major), unless it is a capstone course or an honors course (excluding Fren 21A, Germ 21A, Span 21A). Courses in the minor departments may not be used to satisfy Arts and Sciences perspective requirements.

The faculty approved these requirements for all B.A. degree candidates because they believe that juniors and seniors benefit from further study in the Perspectives and because the additional courses add coherency and depth to the General Education requirements. To this end, students are encouraged to pursue courses in sequence as they fulfill their requirements.

For example, a student might take Classics 33, The Age of Pericles, as an introduction to the literature, art, and thought of classical Greek civilization, and continue with Classics 62, The Tragic Dimension in Classical Literature, a more specialized course. Or, a student might take introductory physics and calculus courses in the General College and then specialized courses in electronics as a junior or senior.

**Capstone Courses**

Capstone courses particularly stress one or more of the following: the presuppositions of a discipline and how they determine the way it is studied; the intersection of interests between two or more disciplines; and the ethical implications of the ways in which knowledge is applied. Capstone courses are not required for graduation, but students are encouraged strongly to satisfy one or more of their four upper-level Perspective requirements with capstone courses.

(The courses on the following lists that are marked with asterisks have been designated as capstone courses.)

**Aesthetic Perspective**

AFAM 59, 75, 76, 77 (=ART 73), 81 (=ART 81), 94A*, 160, 180 (=FOLK 190)

AFRI 62, 64

AMST 34H, 35H, 63

ANTH 134 (=ART 174 =FOLK 134), 146 (=ENGL 146 =FOLK 146), 163 (=ART 117), 196 (=ART 192 =ASIA 196)

ART 1, 2, 15, 16A, 17A, 17B, 17C, 30, 33, 35, 36, 37, 38, 39, 43, 50, 51 (=CLAR 51), 52, 56, 57, 58, 62, 70, 71, 73 (=AFAM 77), 74, 77 (=CLAR 77), 78 (=CLAR 78), 81 (=AFAM 81), 83, 117 (=ANTH 163), 148 (=CLAR 148), 149A (=CLAR149A), 149B (=CLAR149B), 151 (=WMST 151), 161, 174 (=ANTH 134 =FOLK 134), 182 (=CLAR 182), 190 (=CLAR 190), 191 (=CLAR 191), 192 (=ANTH 196 =ASIA 196)

ASIA 82, 84 (=WMST 84), 196 (=ANTH 196 =ART 192)

CHIN 112, 113, 133, 134, 138, 144, 148

CLAR 51 (=ART 51), 77 (=ART 77), 78 (=ART 78), 148 (=ART 148), 149A (=ART 149A), 149B (=ART 149B), 182 (=ART 182), 190 (=ART 190), 191 (=ART 191)

CLAS 61, 62, 64

CMPL 51, 83H, 90, 93, 96 (=WMST 96), 104 (=ROML 104 =PWAD 190), 153 (=ENGL 153 =FOLK 153), 170, 172, 174, 180, 181, 190, 192

COMM 63, 151, 160 (=WMST 146), 163, 164, 165, 166, 168

DRAM 53, 81, 82, 83, 84, 85, 86, 150, 155, 166, 167, 176

ENGL 34, 34P, 35, 35N, 35P, 39, 42, 43, 45, 46A, 46B, 47W, 51, 52, 54, 58, 59, 60, 60B, 63, 64, 65, 66, 72, 73, 78, 80, 81B, 82, 83, 84, 85, 86 (=WMST 86), 87 (=WMST 87), 88, 89, 90, 91, 92, 93, 94D*, E*, *I*, 95, 146 (=ANTH 146 =FOLK 146), 147 (=FOLK 147), 153 (=CMPL 153 =FOLK 153), 186 (=FOLK 186), 187 (=FOLK 187), 189 (=FOLK 189), 196A

FOLK 103 (=MUSC 132), 107 (=MUSC 133), 108 (=MUSC 134), 134 (=ANTH 134 =ART 174), 146 (=ANTH 146 =ENGL 146), 147 (=ENGL 147), 148, 153 (=CMPL153 =ENGL 153), 186 (=ENGL 186), 187 (=ENGL 187), 189 (=ENGL 189), 190 (=AFAM 180), 192

FREN 21, 40, 41, 60, 61, 62, 77, 94A* (=WMST 94A*)

GERM 21, 40, 41, 68, 70, 71, 74, 80, 81, 82

GREK 21

HIND 105, 106, 107 108, 133, 134

HIST 156

HNR 27, 28, 40, 41, 50

ITAL 41, 42, 55

JAPN 133

LATN 21

MUSC 80, 81, 82, 83, 84, 85, 86, 87, 88, 91 (=WMST 89), 132 (=FOLK 103), 133 (=FOLK 107), 134 (=FOLK 108)

PLSH 111

POLI 94C*

PORT 35, 40

PWAD 165 (=SLAV 165), 190 (=ROML 104 =CMPL 104)

RELI 55, 81, 82, 137

ROML 104 (=CMPL 104 =PWAD 190)

RUSS 50, 73, 164, 165, 166, 171, 179, 186 (=WMST 186), 187, 193

SLAV 165 (=PWAD 165), 169

SOCI 128

SPAN 21, 35, 40, 46, 71, 72, 73, 120 (=WMST 120)

WMST 84 (=ASI 84), 86 (=ENGL 86), 87 (=ENGL 87), 89 (=MUSC 91), 94A* (=FREN 94A*), 96 (=CMPL 96), 120 (=SPAN 120), 146 (=COMM 160), 151 (=ART 151), 186 (=RUSS 186)

**Social Sciences Perspective**

AMST 64, 94A*

ANTH 80 (=PWAD 80), 82, 84 (=LING 72 =WMST 71), 117, 121, 125, 139, 140 (=WMST 140), 141 (=WMST 141), 142 (=RELI 142 =FOLK 142), 161, 165, 170 (=FOLK 171), 171 (=LING 170), 184 (=FOLK 184 =LING 184), 185, 186

ASI 89

CLAR 94A*

CLAS 42 (=WMST 42)

CMPL 92 (=WMST 92)

COMM 62, 80 (=INTS 80), 113, 121, 155 (=JOMC 146 =POLI 146)

COMP 71 (=LING 71)

ECN 91 (=WMST 91), 94A*, 160, 168

ENGL 94A*

ENVR 153 (=PLAN 153 =PUPA 153)

FOLK 142 (=ANTH 142 =RELI 142), 143 (=LING 142), 171
Western Historical/Non-Western/Comparative Perspective

Students who have taken two Western Historical courses in the General College must choose a Non-Western/Comparative course to satisfy the historical perspective at the B.A. level. Students who have taken one pre-1700 Western Historical course and one Non-Western/Comparative course in the General College must choose a course in Western History to satisfy the Historical perspective at the B.A. level.

**Western Historical:**

AFAM 40, 41, 69, 74 (=HIST 71), 88, 122, 150, 169 (=HIST 169 =WMST 169)
AMST 20, 34H, 35H, 40, 62
ANTH 177
ART 41 (=CLAR 41)
CLAR 41 (=ART 41), 75 (=REL 75), 199
CLAS 43, 90, 112 (=COMM 170 =CMLPL 112), 115, 118
CMPL 94A* (=ROML 94A* =HIST 94D*), 112 (=CLAS 112 =COMM 170)
COMM 170 (=CLAS 112 =CMLPL 112)
DRAM 170, 175, 185
GEOG 154

**Non-Western/Comparative:**

AFAM 130 (=AFRI 130 =WMST 130), 174 (=AFRI 174)
AFRI 40, 61 (=WMST 61), 63, 65, 66, 120 (=PWAD 121), 121, 122, 123 (=POLI 119), 124, 130 (=AFAM 130 =WMST 130), 174 (=AFAM 174)
ANTH 26, 42, 55 (=ASIA 55), 77 (=INTS 77 =HIST 51), 100, 120, 127 (=FOLK 127), 129 (=ASIA 129 =FOLK 129), 130, 132 (=FOLK 132), 133, 138, 145 (=ASIA 145), 150, 161, 168, 178 (=ASIA 178), 182 (=ASIA 182)
ASIA 33 (=HIST 33), 34 (=HIST 34), 55 (=ANTH 55), 64 (=REL 64), 65 (=REL 65), 69 (=REL 69), 83 (=HIST 83), 86 (=HIST 84), 87 (=HIST 87), 88 (=HIST 88), 123 (=POLI 123), 129 (=ANTH 129 =FOLK 129), 145 (=ANTH 145), 155 (=REL 155), 162 (=REL 162), 163 (=REL 163), 166 (=GEOG 166), 167 (=GEOG 167), 172 (=REL 172), 175 (=REL 175), 178 (=ANTH 178), 182 (=ANTH 182)

CHIN 138, 145
CLAR 47, 48, 188, 189
COMM 148, 149, 158
DRAM 171
FOLK 127 (=ANTH 127), 129 (=ASIA 129 =ANTH 129), 132 (=ANTH 132)
GEOG 59, 158, 166 (=ASIA 166), 167 (=ASIA 167), 168
GERM 94B*
HIST 18, 19, 24, 25 (=LTAM 47), 30, 33 (=ASIA 33) 34 (=ASIA 34), 36 (=REL 25), 37 (=REL 26), 38, 39, 51 (=ANTH 77 =INTS 77), 77, 78, 79, 80 (=WMST 80), 81, 83 (=ASIA 83), 84 (=ASIA 86), 86, 87 (=ASIA 87), 88 (=ASIA 88), 94E*, 140, 175, 176A, 176B, 177, 181, 193, 194A, 194B, 196

HNR 31, 44
INTS 77 (=ANTH 77 =HIST 51)
LTAM 47 (=HIST 25)
POLI 119 (=AFRI 123), 123 (=ASIA 123), 125, 126, 148
PWAD 121 (=AFRI 120)
REL 25 (=HIST 36), 26 (=HIST 37), 40, 64 (=ASIA 64), 65 (=ASIA 65), 66, 67, 69 (=ASIA 69), 123, 144 (=SLAV 144), 155 (=ASIA 155), 162 (=ASIA 162), 163 (=ASIA 163), 172 (=ASIA 172), 175 (=ASIA 175), 178
RUSS 94A*
SLAV 144 (=REL 144)
SOCI 150, 153
SPAN 53, 54
WMST 61 (=AFRI 61), 80 (=HIST 80), 130 (=AFRI 130 =AFAM 130)
Natural and Mathematical Sciences Perspective

Students who complete two physical science courses in the General College must choose one life science course or one mathematical science course to satisfy the Natural and Mathematical Sciences Perspective at the B.A. level. Conversely, students who completed two life science courses in the General College must choose one physical science course or one mathematical science course to satisfy the Natural and Mathematical Sciences Perspective at the B.A. level.

**Physical Sciences:**

- ASTR 31, 117
- BIOL 7, 8
- BIOL 130 (=CHEM 130)
- CHEM 11, 15, 21, 25H, 130 (=BIOL 130)
- GEOG 10, 11, 12, 110, 114
- GEOL 11, 12 (=MASC 12), 15, 41, 42, 43, 46, 48
- HNRS 29, 47
- MASC 12 (=GEOL 12)
- PHYS 16, 20, 24, 25, 26, 28, 31, 84 (=PWAD 84), 94A*
- PWAD 84 (=PHYS 84)

**Life Sciences:**

- ANTH 48, 112, 115
- BIOL 11, 41, 43, 45, 47, 50, 51, 54, 63, 72, 73, 80, 94B*, 114, 126
  (=ENVR 127 =GEOL 101 =MASC 101), 155
- ENVR 51, 127 (=BIOL 126 =GEOL 101 =MASC 101)
- GEOL 16, 101 (=BIOL 126 =ENVR 127 =MASC 101)
- HNRS 29, 47
- MASC 101 (=BIOL 126 =ENVR 127 =GEOL 101), 110
- PHYE 75
- PSYC 10

**Mathematical Sciences:**

- COMP 14, 15
- MATH 16, 17, 18, 22, 30, 31, 32, 33, 38, 83, 85, 101, 115
- OR 14
- PHIL 21, 71
- STAT 11, 23, 101

*Note: Students may not count Mathematics 16, 22, or 31 to satisfy this requirement if any one of these courses was used to satisfy the General College Basic Skills mathematical sciences requirement. Also, students cannot receive credit for both Comp 14 and 15. Statistics 11 may not be taken for credit if credit has already been obtained for Statistics 23, Economics 70, or Psychology 30.*

**Philosophical Perspective**

- AFAM 55 (=PHIL 55), 128
- AMST 34H, 35H, 61
- ANTH 123, 135 (=FOLK 135 =CMPL 135), 149, 174 (=ASIA 174 =RELI 174)
- ASIA 174 (=ANTH 174 =RELI 174)
- CLAS 94A*
- CMPL 81, 142 (=PHIL 142), 145 (=PHIL 145)
Division of Academic Affairs

The General College
Risa I. Palm, Ph.D., Dean
Donald C. Jicha, Ph.D., Associate Dean
Fred M. Clark, Ph.D., Assistant Dean
Barbara Stenross, Ph.D., Assistant Dean
Karen K. Binder, M.A., Assistant to the Associate Dean
Advisers

All freshmen and sophomores are enrolled in the General College. Freshmen are required to use the two years to fulfill all or most General Education requirements. Many students do not know upon entering the University which major they wish to pursue. These required courses, combined with several electives, provide a welcome chance to explore different areas of interest. Students who do plan to enter a specific major or professional program can combine their General Education requirements with other required courses in their chosen field.

Each student in the General College receives the personal assistance and encouragement of an adviser (usually a regular, full-time member of the University faculty) in selecting courses, maintaining required scholastic standards, and planning a complete educational program. Every effort is made to place students in classes appropriate to their level of precollege preparation and achievement.

Students will be transferred to an upper college during their fourth semester provided they have a grade-point average of 1.75 or higher and at least 36.0 academic hours passed on all work taken at the University and are accepted by the school of their choice. Students may be transferred at their request at the end of their first year (completion of two semesters in residence at the University) provided they have a grade-point average of 3.0 or higher and at least 45.0 academic hours passed (includes advanced placement and transfer credit) and their transfer is approved by the upper college or professional school of their choice.

Requirements for Degree Programs

Bachelor of Arts Students who wish to major in one of the forty or so degree programs in the College of Arts and Sciences will find that in their General College years they have a great variety of courses from which to choose. The Bachelor of Arts major requires only the General Education requirements, and several free electives. The pattern of courses in the junior-senior years is similar: six to eight courses in a major field, four General Education required courses, and enough free electives to complete a total of 120 hours.

Bachelor of Science and Other Specialized Degree Programs

Many students know, when they enter the University, that they wish to pursue a Bachelor of Science degree, or a more specialized program, within or outside of the College of Arts and Sciences. These students can combine their General Education courses with other required courses in their chosen field. The charts on the preceding pages show which courses required by specific programs can be taken in the General College. Students should be aware, however, that many of these programs are highly competitive, and the basic and applied sciences and health sciences areas often require strong science and mathematical skills.

All Bachelor of Arts and most Bachelor of Science degree programs listed in the preceding pages require:

- English 11, 12
- Two semesters of physical education activities
- Nine General Education Perspective courses in the General College (unless exemptions are specified)

Note, also, that
1) most Bachelor of Science programs in the basic and applied sciences and health sciences require two or more mathematical sciences courses. Many require a foreign language through level 4; in some instances, a modern foreign language is required, and
2) Bachelor of Fine Arts in Studio Art and Bachelor of Music programs vary somewhat from the basic pattern of General College requirements. For information on any program, consult the degree requirements section under "The College of Arts and Sciences," or the catalogs of separate schools within the University, where the four-year degree requirements will be found.
Special Programs for Undergraduates

Academic Services

Academic Services, programs to help students achieve academic success, consists of the Academic Support Program for Student Athletes, Learning Disabilities Services, the Learning Center, the Summer Bridge Program, Chemistry and Mathematics Tutorials, and the Writing Center. These programs provide academic support services to students from the moment they enter the University.

The College of Arts and Sciences has developed the programs to assist all students in their endeavors to achieve academic success. With an emphasis on students in the General College, but open to all students, the programs are intended to strengthen academic skills. Although they cover a range of academic disciplines, these programs share common goals: to be responsive to students' individual needs and to provide appropriate services so students can gain the confidence essential to their success at the University.

Academic Services is under the direction of the associate dean for academic services in the College of Arts and Sciences. The administrative office is in 211 Steele Building.

Academic Support Program for Student Athletes

The Academic Support Program for Student Athletes, located in Kenan Field House, offers academic counseling and support to help student athletes successfully balance the demands of their academic and athletic schedules. The staff provides academic counseling, a first-year transition program, proactive monitoring, study skills development workshops, a tutoring program, and career counseling services. The Academic Center’s facilities include a computer lab, a language lab, a study hall equipped with study cubicles, ten small-group study rooms, a reading lounge, a small classroom, and a 130-seat auditorium for group presentations and lectures.

Chemistry Tutorial Program

The Chemistry Tutorial Program supplements class instruction for any student enrolled in Chemistry 11 (General Chemistry I) and Chemistry 21 (General Chemistry II).

When the Chemistry Tutorial is in session, tutors are on duty in the Dobbins Chemistry Resource Center, 225 Venable Hall, Monday through Thursday from noon to 6:00 p.m. Students may drop in to ask questions, discuss course material, and work through problems.

Learning Center

The Learning Center, located in Phillips Annex, aims to help students in a challenging University setting become self-confident, self-directed learners. While the immediate goal of the Learning Center is improving students’ abilities to learn, remember, and solve problems, the center’s ultimate goal is increasing student achievement, retention, and graduation rates. The center’s programs include:

The Reading and Learning Lab, a program through which students can discover effective reading and learning strategies, Supplemental Instruction, guided study groups to help participants blend how to learn with what to learn, and Peer Tutoring, tutorial assistance to enhance students’ understanding of many subjects.

Visit the Learning Center’s Web site at: http://www.unc.edu/depts/lcweb/.

Learning Disabilities Services

Learning Disabilities Services, located in 315 Wilson Library, promotes learning by providing academic support to meet the individual needs of students with diagnosed learning disabilities, attention deficit disorders, or acquired head injuries.

Learning Disabilities Services strives to increase the confidence and independence of students so that they may succeed during and after their University years. The services are designed to enhance students’ strengths and develop new strategies for meeting academic demands. Working with students and professors, the staff analyzes course requirements and helps students focus their time and energy accordingly. Services include assistance with written language, time management, course-specific content-based learning strategies, as well as preparation and supervision of alternate testing formats.

Math Tutorial

The Math Tutorial Program, located in 408 Phillips Hall, is designed to strengthen fundamental math skills for students having difficulty with their math courses.

The program’s purpose is to increase the success rate for students. They must be referred for tutorial assistance by their math instructors. Help is available in Math 10, 16, 17, 18, 22, 30, or 31 for weekly one-on-one meetings.

Summer Bridge Program

Summer Bridge is a seven-week residential academic support program for a select group of entering first-year students. The program is designed to ease participants’ personal and academic transition from high school to the University. Students enroll in an English composition course and a mathematics course. Also, they participate in learning strategies instruction offered by the Learning Center. Cultural and recreational activities are significant components of the program as students are introduced to the University and the vast array of opportunities available.

The Summer Bridge Program’s administrative offices are located in 202, 207, and 211 Steele Building.

Writing Center

The Writing Center, located in Phillips Annex, seeks to enhance writing skills by offering free, ungraded, noncredit tutorial services. While the Writing Center’s primary focus is undergraduates, especially students in English 10, 11, and 12, the center’s services are available to all students, staff, and faculty. Tutors work with students on all aspects of writing including topic development, organization, style, and grammar. Individual or small-group tutorial sessions are available by appointment.

Visit the Writing Center’s Web site at: http://www.unc.edu/dpts/wcweb.
Undergraduate Honors Program. The Honors Program offers exceptionally well-qualified freshmen, sophomores, and juniors an opportunity to take part of their general education curriculum in special honors seminars and honors sections. Honors seminars are special topics courses, limited in enrollment to fifteen students, and taught by outstanding members of the university faculty. Honors sections of regular departmental course offerings are also limited in enrollment and are taught by permanent members of the university faculty. Honors seminars and sections emphasize critical reading, class discussion, and expository writing.

Some enrolling freshmen are invited to participate immediately in the Honors Program; other students are invited into the program during their freshman or sophomore years on the basis of outstanding academic performance. Honors courses are open to all academically qualified students on a space-available basis.

The Honors Program Student Advisory Board coordinates social and cocurricular activities for Honors Program students. The activities include faculty/student socials, non-credit seminars and discussion groups, the annual Honors Colloquium, and community service projects.

Senior departmental honors programs are offered in nearly fifty departments, curricula, and professional schools throughout the University. Generally, all students with at least a 3.2 overall grade-point average at the end of the junior year are eligible to participate. Although the programs vary somewhat from department to department, most involve the preparation of an honors thesis. It is on the basis of participation in senior honors that a student may be graduated from the university“with Honors” or “with Highest Honors.”

The undergraduate honors program is administered by the Associate Dean for Honors of the College of Arts and Sciences.

Credit by Examination. Any student may earn credit for a course by successful completion of an “advanced standing” examination in that course administered by the department concerned, provided that advance approval to take the examination (at least thirty days before examination is taken) has been granted by the department or school. Recommendation for credit by examination is submitted by the department or school to the student’s academic dean for final approval. Credit so earned will not be contingent upon completion of further work in the subject.

Credit by College Board Advanced Placement Examination. Normally a score of three or higher on any advanced placement examination of the College Board will entitle the student to credit for the comparable university course as determined by the Director of Undergraduate Admissions in consultation with the chair of the appropriate department. Such credit will not be contingent upon the completion of further work in the subject.

Health Professions Advising Office. The Health Professions Office, located in 201D Steele Building, provides advice and assistance on course selection, sequencing opportunities for health-related experiences, test preparation, and admission requirements. This office also helps prepare students for postbaccalaureate programs in veterinary medicine and optometry. It also provides information on all health sciences programs offered at the University.

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<th>DEGREE PROGRAM</th>
<th>MATHEMATICS</th>
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<td>General College requirements</td>
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<td>1 science with lab Psyc 10</td>
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<td>1 biological &amp; 1 physical science Psyc 10 &amp; 1 other science</td>
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<td>STAT II</td>
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<td>minimal requirement</td>
<td></td>
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</tr>
<tr>
<td>B.M. (Applied Music)</td>
<td>For all requirements consult General College adviser in Music.</td>
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<tr>
<td>B.M. Ed. (Music Education)</td>
<td>General College Requirements</td>
<td></td>
<td>some perspective courses may have to be postponed</td>
</tr>
<tr>
<td>*B.S. (Applied Sciences) Computer Science Option</td>
<td>Math 31, 32, 33, 83</td>
<td>minimum requirement</td>
<td>Chem 11, 11L, 21, 21L</td>
</tr>
<tr>
<td>Biomedical Materials Science</td>
<td>Math 31, 32, 33, 83</td>
<td></td>
<td>Chem 11, 11L, 21, 21L</td>
</tr>
<tr>
<td>Materials Science Option (Chemistry-Based)</td>
<td>Math 31, 32, 33, 83</td>
<td></td>
<td>Chem 11, 11L, 21, 21L</td>
</tr>
<tr>
<td>Materials Science Option (Physics-Based)</td>
<td>Math 31, 32, 33, 83</td>
<td></td>
<td>Chem 11, 11L, 21, 21L</td>
</tr>
<tr>
<td>Polymer Science Option</td>
<td>Math 31, 32, 33, 83</td>
<td></td>
<td>Chem 11, 11L, 21, 21L</td>
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</tbody>
</table>
The Predental/Premedical Track. UNC-Chapel Hill has no formal predental or premedical programs; instead students should choose one of the traditional B.A. or B.S. programs. Most B.S. programs require the same mathematics and natural science courses necessary for admission to dental and medical schools. Many B.A. programs do not have such requirements so the student must take the mathematics and natural science courses required for admission to dental and medical schools as electives.

Some medical schools require a year of calculus. Therefore, students are encouraged to take Math 31 and 32 in order to keep all of their options open for majors and medical schools. These courses are good preparation for the science requirements and should be taken early. If the student selects a B.A. program, Chemistry 11 and 11L are recommended for the first semester.

In view of ongoing changes in preprofessional course requirements for dental and medical schools, students are strongly encouraged to visit the Health Professions Advising Office, 201D Steele Building. The latest requirements both for courses and the required admission tests can be obtained from this office. This office also provides health career assistance in preparing for baccalaureate and postbaccalaureate programs in the allied health programs, as well as in veterinary medicine, optometry, etc.

Preparation for the Study of Veterinary Medicine. The School of Veterinary Medicine opened in Raleigh at North Carolina State University in 1981. Prerequisite and admission information is in the Health Professions Advising Office, 201D Steele.

Prelaw Track. Many students enter the University each fall with aspirations to attend law school. At UNC-Chapel Hill there is no formal curriculum for prelaw students. Instead, students should follow one of the traditional four-year B.A. or B.S. degree programs. Most law schools do not require, or even recommend, that students major in any particular field. However, most schools subscribe to the selection of a course of study that will provide a foundation for the undertaking of legal studies; reading, writing, speaking, and analytical and critical thinking skills.

The Association of American Law Schools recommends a prelaw program involving education for "comprehension and expression in words, a critical understanding of the human institutions and values with which the law deals, and creative power in thinking." Graduates of law schools who have a strong second area of competence often have excellent job placement possibilities. For example, patent attorneys are frequently selected for their background in the sciences.

Applicants to law school must present evidence of academic achievement of high quality and strong Law School Admission Test scores. Prelaw students should emphasize academics. Students should enroll in the UNC-Chapel Hill Reading Program at the earliest opportunity in order to increase reading speed and comprehension.

Students are encouraged to visit the Prelaw Office in Steele Building and the University Counseling Center in Nash Hall.

<table>
<thead>
<tr>
<th>SOCIAL SCIENCES (2)</th>
<th>WESTERN HIST./ NON-WESTERN/ COMPARATIVE (2)</th>
<th>AESTHETIC (2)</th>
<th>PHILOSOPHICAL (9)</th>
<th>OTHER REQUIRED COURSES</th>
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<tbody>
<tr>
<td>Soci 30 &amp; 1 other</td>
<td>for all other requirements, consult General College adviser in Education</td>
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<td></td>
<td>Psyc 24</td>
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<tr>
<td>Poli 42, 43, 46, 102, 134, 135, or 136</td>
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<tr>
<td>Econ 10 Poli 41, 70, or 75</td>
<td>1 pre-1700 Hist 22</td>
<td></td>
<td></td>
<td>JOMC 50 Grammar spelling exam</td>
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<tr>
<td>Soci 10 or 12 Soci 12 if Soci 10 is not taken</td>
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<td>LSRA 10 required</td>
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<tr>
<td>delayed until junior-senior years</td>
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<td>delayed until junior-senior years</td>
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<tr>
<td>Computer Science: Comp 14 Phys 26, 27, 28, 28L, 61</td>
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<tr>
<td>Biomedical Materials Science Chem 41L, 51, 61, 62, 62L Phys 26, 27</td>
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<tr>
<td>Materials Science: (Chemistry-Based) Chem 41L, 51, 62, 62L; Phys 26, 27</td>
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<tr>
<td>(Physics-Based) Chem 51 Phys 26, 27, 28, 28L, 61</td>
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<tr>
<td>Polymer Science: Chem 41L, 51, 61, 62, 62L</td>
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<tr>
<td>DEGREE PROGRAM</td>
<td>MATHEMATICS</td>
<td>FOREIGN LANGUAGE(S)</td>
<td>NATURAL SCIENCES (1 LAB SCIENCE REQUIRED)</td>
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<tr>
<td>B.S. (Biology)</td>
<td>Math 31 and 1 from Math 32, Comp 14, Stat 11</td>
<td>any language through level 4</td>
<td>Chem 11, 11L, 21, 21L</td>
<td></td>
</tr>
<tr>
<td>B.S. (Business Admin.)</td>
<td>Math 22 or 31, Stat 23</td>
<td>General College requirement</td>
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<tr>
<td>B.S. (Chemistry) 6 perspective courses only</td>
<td>Math 31, 32, 33, 83</td>
<td>any language through level 4 if the language was studied in high school OR through level 3 if not studied in high school</td>
<td>Chem 11, 11L, 21, 21L</td>
<td></td>
</tr>
<tr>
<td>B.S. (Dental Hygiene)</td>
<td>one course, Stat 11 preferred</td>
<td>General College requirement</td>
<td>Chem 11, 11L, 21, 21L OR Biochemistry 7,8</td>
<td></td>
</tr>
<tr>
<td>B.S. (Geology)</td>
<td>Math 31-32</td>
<td>any language through level 3</td>
<td>Chem 11, 11L, 21, 21L</td>
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</tr>
<tr>
<td>B.A. (Industrial Relations)</td>
<td>Math 22 or 31 &amp; other math</td>
<td>General College requirements</td>
<td>Psych 10 &amp; Lab Science</td>
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<tr>
<td>B.S. (Mathematics)</td>
<td>Math 31, 32, 33, 81, 83</td>
<td>any language through level 4</td>
<td>Phys 26, 27, OR 24, 24L, 25, 25L</td>
<td></td>
</tr>
<tr>
<td>B.S. (Clinical Laboratory Science/ Medical Technology)</td>
<td>Math 30, Stat 11 or Math 31</td>
<td>General College Requirements</td>
<td>Chem 11, 11L, 21, 21L</td>
<td></td>
</tr>
<tr>
<td>B.S. (Nursing)</td>
<td>Stat 11</td>
<td>General College requirements</td>
<td>Chem 11, 11L, 21L or Biochemistry 7,8</td>
<td></td>
</tr>
<tr>
<td>B.S. (Pharmacy) 6 Perspective Course Only</td>
<td>Math 30-31 and Stat 11</td>
<td>General College requirements***</td>
<td>Chem 11, 11L, 21, 21L</td>
<td></td>
</tr>
<tr>
<td>B.S. (Physics)</td>
<td>Math 31, 32, 33, 83</td>
<td>General College requirements</td>
<td>Chem 11, 11L, 21, 21L</td>
<td></td>
</tr>
<tr>
<td>B.S. (Psychology)</td>
<td>Math 31, 32</td>
<td>modern language through level 4</td>
<td>Psych 10; Biol 11, 11L</td>
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</tr>
<tr>
<td>B.S. (Public Health) a) Biostatistics</td>
<td>Math 31, 32, 33</td>
<td>General College requirements</td>
<td>Biol 11, 11L &amp; other science</td>
<td></td>
</tr>
<tr>
<td>B.S. (Public Health) b) Environmental Science and Policy</td>
<td>Math 31, 32</td>
<td>General College requirements</td>
<td>Chem 11, 11L, Biol 11, 11L</td>
<td></td>
</tr>
<tr>
<td>B.S. (Public Health) d) Health Policy and Administration</td>
<td>Two of the following: Math 22 or 30 or 31 or Stat 23</td>
<td>General College requirements</td>
<td>Biol 11, 11L, &amp; 1 other science</td>
<td></td>
</tr>
<tr>
<td>B.S. (Public Health) e) Nutrition</td>
<td>Math 30 and 31</td>
<td>General College requirements</td>
<td>Chem 11, 11L, Biol 11, 11L</td>
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</tr>
<tr>
<td>B.S. (Radiologic Sciences)</td>
<td>One from Math 30, 31, or Stat 11</td>
<td>General College requirements</td>
<td>Chem 11, 11L, 21, 21L, or Biochemistry 7,8</td>
<td></td>
</tr>
<tr>
<td>B.S. in Science Teaching</td>
<td>Math 31, Comp 14</td>
<td>General College requirements</td>
<td>Biol 11, 11L, Chem 11, 11L</td>
<td></td>
</tr>
</tbody>
</table>

*Students must fulfill regular perspective requirement; no particular course specified. **SOCI 10 or SOCI 11 is required. If SOCI 10 is taken, another Western Historical or Non-Western/Comparative Perspective may be substituted for SOCI 10. If SOCI 11 is taken, another Social Science Perspective may be substituted for SOCI 11. ***Other history may be replaced by a required 2nd, 3rd, or 4th level foreign language course. Either fine arts or literature courses may be replaced by a 2nd, 3rd, or 4th level foreign language course.
<table>
<thead>
<tr>
<th>SOCIAL SCIENCES (2)</th>
<th>WESTERN HIST./ NON-WESTERN/ COMPARATIVE (2)</th>
<th>AESTHETIC (2)</th>
<th>PHILOSOPHICAL (9)</th>
<th>OTHER REQUIRED COURSES</th>
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</thead>
<tbody>
<tr>
<td>*</td>
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<td>*</td>
<td>Chem 21, 21L, 61, 41L, 62, 42, 42L</td>
</tr>
<tr>
<td>Econ 10, Poli 41</td>
<td>*</td>
<td>*</td>
<td>*</td>
<td>B.A. 24, 71; Econ 100 or 101</td>
</tr>
<tr>
<td>1 required course</td>
<td>1 required course</td>
<td>1 required course</td>
<td>*</td>
<td>Phys 26, 27, Chem 41L, 42, 51, 61, 62, 62L</td>
</tr>
<tr>
<td>Soci 10 **</td>
<td>Soci 11 **</td>
<td>*</td>
<td>*</td>
<td>Psyc 10, COMM 13 or 22 recommended Bio 45, 63L, Bact 55</td>
</tr>
<tr>
<td>&amp; 1 other</td>
<td>*</td>
<td>*</td>
<td>*</td>
<td>Geol 11, 11L, 12, 15, or 41; Geol 16, 42, 46, 132 or 135</td>
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<td>*</td>
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<td>Either Soci 12 or Psyc 33; 1 from Econ 70, 85, 24, Psyc 30, Soci 52</td>
</tr>
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<td>*</td>
<td>Comp 14 for all options &amp; Comp opt.; Comp Sci 114 Apply. Math: Phys 28 (may be done in junior-senior year also)</td>
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<td>Chem 41L, 61; Biol 11, 11L, 45, 63L</td>
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<td>Biol 11, 11L, 45, 63L, Micro 55, or 51; Phys 92, Psyc 10</td>
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<tr>
<td>1 course in Anthropology, Sociology Economics, or Political Science required</td>
<td>1 course required**</td>
<td>1 course required**</td>
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<tr>
<td>Econ 10 recommended (1 required course only)</td>
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<td>Biol 11, 11L, 45, 63L, Chem 41L, 61, 62, 62L, Phys 20 (or Phys 24, 24L)</td>
</tr>
</tbody>
</table>

Perspective courses may have to be delayed until junior-senior years. Phys 26, 27, 28, 28L, 61, 103

| *                   | *                                         | *           | *               | Comp 14; Natural Science course with lab; two of Psyc 24, 28, 33, or 80 |
| *                   | *                                         | *           | *               | Environmental Science and Policy: Chem 21, 21L, 61, Phys 24, 25; Comp 14; Biol 54; Geol 41; Stat 11 or Bios 101 or 110 |
| Econ 10             | *                                         | *           | *               | Health Policy and Administration: BA 71 (may be done in junior-senior years) |
| *                   | *                                         | *           | *               | Nutrition: Chem 21, 21L, 61; Biol 45 and 63L; Nutr 40 or 100; Phys 24, and 25, or Phys 20 (can be taken in junior-senior years) |
| *                   | *                                         | *           | *               | Biol 11, 11L, 45, 63L, Psyc 10; Phys 24, 25 |
| *                   | *                                         | *           | *               | Consult General College Education adviser |
The College of Arts and Sciences

RISA PALM, Ph.D., Dean
Darryl J. Gless, Ph.D., Senior Associate Dean
Richard A. Soloway, Ph.D., Senior Associate Dean
Joseph L. Templeton, Ph.D., Senior Associate Dean
Linda Spremulli, Ph.D., Acting Senior Associate Dean
for Plans and Programs
Bobbi Owen, M.F.A., Associate Dean
Richard King, Ph.D., Assistant Dean
Joseph C. Lowman, Ph.D., Assistant Dean

Arts and Sciences Advisers:
Thomas Baker, Ph.D., Deborah Best, M.A., Lisa
Brachman, J.D., John R. Covach, Ph.D., James R. Kessler,
M.A. Stephen T. Leonard, Ph.D., Julia Mack, Ph.D.,
Gustavo Maroni, Ph.D., Rekha Mirchandani, Ph.D.,
Aaron Nelson, B.A., Nalin R. Parikh, Ph.D., Rosa
Perelmutter, Ph.D., Alan Stiven, Ph.D., Amy Strong, M.A.,
James A. Wild, Ph.D.
Peter Coclanis, Ph.D., Associate Dean for General Education
Russell Van Wyk, Ph.D., Special Assistant to Dean
Robert C. Allen, Ph.D., Associate Dean for Honors
W. Miles Fletcher, Ph.D., Assistant Dean for Honors
Harold Woodard, M.A., Associate Dean for Student Counseling
Anthony Locklear, M.A., Assistant Dean for Student Counseling
Carolyn Cannon, M.A., Associate Dean for Academic Services
Norma G. Johnson, Ph.D., Assistant Dean for
Academic Services
Dennis W. Cross, Th.M., Associate Dean for
Program Development
Speed Hallman, M.A., Assistant Dean for
Program Development

The College of Arts and Sciences offers work on the
junior and senior levels for completing programs of study
leading to the Bachelor of Arts degree and to the more spe-
cialized degrees of Bachelor of Science, Bachelor of Music,
and Bachelor of Fine Arts. Special interdisciplinary curricula
lead to degrees with majors in African Studies, Afro-
American Studies, American Studies, Applied Sciences,
Asian Studies, Industrial Relations, Interdisciplinary Studies,
International Studies, Latin American Studies, Mathematical
Sciences, Peace, War, and Defense, Public Policy Analysis,
Russian and East European Studies, and Women's Studies.

Admission and Choice of Major

Students enter the College of Arts and Sciences by trans-
fer from the General College or by admission to advanced
standing in the University. In either case, the General
College requirements must be met, and students who enter
the college with freshman-sophomore deficiencies must
include the fulfillment of these requirements in their junior-
senior programs.

Students will have the assistance of one of the advisers in
the dean's office when selecting a major field or special pro-
gram. If one of the disciplinary degree programs is selected,
advisees in the major department will assist in the selection
of courses. Final responsibility for the acceptability of course
selection and for full compliance with all published regula-
tions and requirements of the college rests with the student.

To avoid problems with registration and to insure gradu-
ation by the expected date, students are strongly encouraged
to declare a major officially during their sophomore year or
early in their junior year. Students who have not declared a
major prior to their sixth semester may have their prereg-
istration cancelled and not be permitted to register until they
have seen an adviser and chosen an academic major.

Students who have not declared a major by the beginning of
their fifth semester will be notified of the impending penalty
associated with their registration for the next semester.

Students' majors are generally classified into one of the
four divisions of the college. A few programs, most com-
monly interdisciplinary majors, reside in two divisions.

The Division of Fine Arts

MARY D. SHERIFF, Chair
Adam N. Versenyi, Vice Chair

Departments:
Art, Dramatic Art, and Music.

The Division of the Humanities

BEVERLY LONG, Chair
David Halperin, Vice Chair

Departments:
Classics, Communication Studies, English, Germanic
Languages, History, Linguistics, Philosophy, Religious
Studies, Romance Languages, Slavic Languages.
Curricula:
African Studies, Afro-American Studies, American
Studies, Comparative Literature, Asian Studies, Folklore,
Latin American Studies, Russian and East European
Studies, Women's Studies.
The Division of Basic and Applied Sciences

DIRK FRANKENBERG, Chair
Warren Wogen, Vice Chair

Departments:

Curricula:

The Division of the Social Sciences

GLEN H. ELDER, CHAIR
David L. Lowery, Vice Chair

Departments:

Curricula:

Requirements for Degrees

Candidates for all degrees must establish eligibility as defined under “Academic Procedures.” Requirements for the following five degrees can be found in this section.

Bachelor of Arts
Bachelor of Arts with a Major in Interdisciplinary Studies
Bachelor of Science
Bachelor of Fine Arts
Bachelor of Music

Please refer to the Academic Departments section for information about degree requirements for specific majors.

Bachelor of Arts

Students must complete successfully at least 120 semester hours of course work (not including physical education activities courses) and attain a final cumulative grade point average (GPA) of not less than 2.0. (If repeated, most courses will not count toward credit hours required for graduation. Any exception to this policy, such as Applied Music, Special Studies, etc., must receive the express approval of the Dean’s Office in the College of Arts and Sciences.) A minimum of forty-five hours of academic credit must be taken at UNC-Chapel Hill. Every UNC-Chapel Hill student must fulfill at least twenty-four of the last thirty hours with UNC-Chapel Hill courses. These may include courses taken by correspondence or offered in Study Abroad programs sponsored by the University’s official international programs.

Students admitted to the University beginning with or after fall semester 1982 must complete the freshman-sophomore pattern of courses required by the General College, in addition to a junior-senior distribution of at least eighteen semester hours in the major field and at least one additional course in one of the five Perspectives. A Non-Western/Comparative course must be taken for one of the perspectives if such a course was not used to satisfy the Historical perspective requirement in General College.

Courses cross-listed with one’s major or minor are to be treated as courses in the major or minor department, regardless of what the student’s registration shows. This means the courses may not be used to satisfy B.A.-level perspectives requirements and may not be taken "PS/D+D/F/".

No more than forty semester hours of courses in any subject may be used toward fulfillment of the B.A. graduation requirement. Twelve semester hours of courses from professional schools (Business Administration, Education, Journalism and Mass Communication, Law, Library Science, Social Work, Dentistry, Medicine, Nursing, Pharmacy, or Public Health) may be offered for degree credit in B.A. and B.S. programs.

Students entering in fall 1994 or later may receive credit towards graduation only for twelve hours in professional school courses. The exemption for College Electives has been deleted.

Students admitted to the University prior to fall semester 1982 must complete the freshman-sophomore pattern of courses required by the General College, as well as a junior-senior distribution of at least eighteen semester hours in the major department, at least fifteen semester hours in allied departments, and at least fifteen semester hours in nondepartmental departments. Courses in departments listed in more than one division (History, Philosophy, Psychology) may not be counted as both allied and nondepartmental in the same program. Courses cross-listed with the major may not count as electives. Only four allied or nondepartmental electives may be taken in a single subject. In no case may more than forty hours of courses in any subject be used toward fulfillment of the B.A. graduation requirement.

Students must have completed a satisfactory major as prescribed by departmental or curriculum requirements. A minimum of eighteen hours of C or higher (not a C average) in the major is required. Students transferring credits in their major field must earn a grade of C or higher in at least three-fourths of the courses in the major taken at UNC-Chapel Hill. Students transferring from another institution must take at least half of their course requirements in the major at UNC-Chapel Hill.
Double Majoring

A student may earn the B.A. degree with a double major by meeting all major requirements and elective distribution requirements in the two disciplines selected; in some cases, it would be possible to do this in as few as 120 semester hours.

Courses that can be used for both a major in an interdisciplinary curriculum and a major in a single department may be double counted for double majors, with the following general limitation: more than half of the courses taken in each major must be exclusive to that major and not double counted.

Bachelor of Arts with a Major in Interdisciplinary Studies

Students interested in an interdisciplinary degree program not covered by any degree-granting curriculum should apply to the director of interdisciplinary studies (314 Steele Building) in the second semester of the sophomore year or the first semester of the junior year. Students should have a grade-point average of at least 2.4 and at least forty-five hours left before graduation.

Students should meet all General College requirements before entering the Interdisciplinary program. While in the General College, they may wish to choose electives that are relevant to their later field of study.

Specific core course requirements must be distributed as follows: eight courses from three departments, with a maximum of four from any one department. Core courses should be appropriate for juniors and seniors majoring in those departments and are not to be freshman-sophomore-level courses. They should form a coherent area of study to which the student is able to give a title (e.g., Medieval Studies, Culture Studies, Urban Studies) and which the student is unable to get by majoring in one of the departments or already established curricula of the College of Arts and Sciences. Because the Interdisciplinary Studies major is for those who cannot satisfy the requirements of any recognized major offered by the University, those choosing this major may not declare a second major or minor.

For information about Renaissance Studies for the Interdisciplinary Studies major, consult with either Professor Masters at 230 Dey Hall or Professor Headley at 500 Hamilton Hall.

With permission of the relevant professional school, one may use up to twelve hours of professional courses (e.g., in Business Administration, Journalism and Mass Communication, Public Health) in the core. This can be advantageous to students who want some concentration in these areas but who also want a degree in Arts and Sciences. But Interdisciplinary Studies majors are still restricted by the College of Arts and Sciences rule that there be no more than twelve hours of professional courses in the 120 hours required for the B.A. degree.

Qualified students may pursue departmental or interdisciplinary honors through this program.

Bachelor of Science

Four-year programs leading to the degree of Bachelor of Science provide for specialization in a particular field, necessary instruction in related fields, including foreign language, and somewhat reduced requirements in nonscience fields.

This degree is awarded in Applied Sciences, Biology, Chemistry, Geology, Mathematical Sciences, Mathematics, Physics, and Psychology. Specific junior-senior requirements for each scientific field degree are stated in the headnote to the course descriptions of the respective department or curriculum.

Bachelor of Fine Arts

A four-year program leading to the degree of Bachelor of Fine Arts is offered by the Department of Art. It provides, for qualified students, preprofessional training in creative aspects of the field of art. Approximately one half of the program will be in the field of the major and the other half will be in the liberal arts and sciences. Junior-senior requirements for the degree are stated in the headnote to the course descriptions of the Department of Art.

Bachelor of Music

The four-year program leading to the degree of Bachelor of Music emphasizes training and achievement in the performance or composition of music. Junior-senior requirements for the degree are stated in the headnote to the course descriptions of the Department of Music. Approximately one half of the program will be in the field of the major and the other half will be in the liberal arts and the sciences.

Academic Minors

As of fall 1990, the college has been authorized to give official recognition to academic minors in Arts and Sciences departments and curricula awarding such recognition. In addition, Arts and Sciences students may minor in business administration with the permission of the school, in technical writing (through the School of Journalism and Mass Communication), and in information systems (through the School of Information and Library Science).

The following Arts and Sciences minors are available. Specific junior-senior requirements for each minor are stated in the headnotes to the course descriptions of the respective department, curriculum, or school.

African Studies (African and Afro-American Studies)
Afro-American Studies (African and Afro-American Studies)
American Studies
Anthropology
Art History
Asian Studies
Astronomy (Physics)
Biology
Business
Chemistry
Chinese (Asian Studies)
Comparative Literature
Creative Writing
Dramatic Art (dramaturgy; theatrical design)
Environmental (Studies; Sciences)
Folklore
French (Romance Languages)
Geography
Geology
Germanic Languages
Greek (Classics)
History
Information Systems (School of Information and Library Sciences)
Italian (Romance Languages)
Japanese (Asian Studies)
Journalism and Mass Communication
Latin (Classics)
Linguistics
Marine Sciences
Mathematics
Mathematical Sciences
Medieval Studies (Classics)
Music (History and Music Theory; Music Performance; Jazz Studies)
Philosophy
Physical Education, Exercise, and Sport Science
Physics
Portuguese (Romance Languages)
Public Policy Analysis
Recreation Administration
Religious Studies
Russian and East European Literature in Translation
(Slavic Languages)
Russian Language (Slavic Languages)
Spanish (Romance Languages)
Technical Writing
Women's Studies

The requirements and limitations that apply to all undergraduate academic minors are as follows:

A student may have only one minor regardless of the student's major degree program. Departments may exclude certain minors from being elected and completed by students majoring in these departments.

Students pursuing a double major program may not pursue the completion of a minor.

As a general rule, the same course may not be counted for the fulfillment of a requirement in both the major and the minor. However, courses that can be used for both a major in an interdisciplinary curriculum and a minor in a single department may be double counted with the following limitations: More than half of the courses used in the minor must be exclusive to that particular field and not part of the major.

At least nine hours of the (four- or five-course) minor must be completed at The University of North Carolina at Chapel Hill and NOT at other academic institutions. Certain minor departments may require that more than nine hours must be completed at the University.

Courses in the minor department may not be used to satisfy Arts and Sciences perspective requirements.

If more than a single course in the minor is used to satisfy a General College perspective requirement, an advanced course(s) in the minor field recommended by the minor department/curriculum/school must be completed to satisfy the minor requirement.

A minimum of twelve hours of C grades or higher is required in the minor unless otherwise (more than twelve hours) specified by the minor department.

All courses in the minor department must be taken for a grade, though one exception to this rule will be allowed, as with courses in the major (i.e., one course taken before the declaration of the minor can count toward that minor).

If students plan to pursue the completion of a minor, they are encouraged to declare their minor early in the junior year.

Currently, students may use a maximum of twelve professional school hours as electives to fulfill their Arts and Sciences semester hour graduation requirement (120 hours plus two Physical Education Activity hours). Arts and Sciences students electing professional school minors are exempt from this rule to the extent that the minor requires additional professional school courses.

**Degrees with Honors**

Programs providing an opportunity for honors study for qualified students are offered in all four divisions of the college. The honors programs are supervised by the individual departments and curricula, in conjunction with the assistant dean for honors. Though they are not completely uniform in the various disciplines, all have these general procedures and requirements:

Application for honors work: students should apply to the honors adviser in their major departments or curricula. Ordinarily, application is made at the end of the junior year, although it is done earlier in some departments. Detailed
information concerning application should be obtained from the honors adviser in the major.

Requirements for eligibility: in general, a minimum overall GPA of 3.2 is required for admission to honors work, though a higher average is required in some departments. Nature and purpose of honors study: programs are provided for students who have demonstrated a very high level of scholastic ability and achievement and who desire to pursue an intensive, individualized program of study in their major discipline. Honors studies ordinarily will consist of one or more of the following projects: the preparation of an honors thesis or essay, an honors research project, an independent research or reading program, the completion of advanced course work in the major not normally required of students in that major. A special written or oral examination on the student’s program is required during the second semester of the senior year. The department may impose other requirements that it deems appropriate. In every instance, study for honors will require academic excellence. When the student has fulfilled all requirements, the department will recommend to the associate dean for honors that the degree be awarded “with honors” or “with highest honors.” The degree with highest honors is conferred in recognition of extraordinary achievement in honors program work and predominantly excellent course grades in the major.

Procedures for granting degrees with honors: the grade for course work in connection with an honors project is determined by the faculty sponsor and is (like all grades) subject to appeal. Successful completion of honors course work does not automatically confer departmental honors. Before awarding a degree with honors, the College of Arts and Sciences requires the recommendation of a departmental honors committee on the basis of departmental criteria for honors (normally an excellent paper and/or exam and a high GPA in the major field), and the endorsement of that committee’s recommendation by the departmental chair. A negative recommendation by the department is final and cannot be appealed. The associate dean for honors makes the final decision to award a degree with honors on the basis of the department’s positive recommendation and the student’s cumulative GPA.

Dean’s List

To be eligible for the Dean’s List, students must meet one of the following requirements:

1. a 3.2 quality-point average with no grade lower than C if enrolled in fifteen or more hours of letter-grade credit, exclusive of physical education activities courses;
2. a 3.5 quality-point average with no grade lower than C if enrolled in at least twelve but fewer than fifteen hours of letter-grade credit, exclusive of physical education activities courses.

The grade point average is based on the grades received and recorded at the time the Dean’s List is published by the Office of the University Registrar. No changes are permitted to the Dean’s List after that date.

Phi Beta Kappa

This national collegiate honor society is open to undergraduate students in the College of Arts and Sciences and in exceptional circumstances (as described below) to students enrolled in undergraduate professional degree programs.

The following students in the College of Arts and Sciences are eligible for membership:

- Students who have completed at least seventy-five semester hours of graded academic course work taken at UNC-Chapel Hill with a quality point average of at least 3.750.
- Students who have completed at least 105 semester academic course hours (which include at least forty-five semester hours of graded course work taken at UNC-Chapel Hill) with a quality point average of at least 3.650. [Effective August 15, 1995]
- No grades made at an institution from which a student has transferred shall be included in determining a student’s eligibility.

The quality point average shall include all academic course work taken and counted at UNC-Chapel Hill toward the candidate’s degree. Physical activity course hours and grades shall not be included. Grades and hours received on courses taken after the candidate has received his or her degree also shall not be counted.

Students in Undergraduate Professional Degree Programs

Undergraduate students not enrolled in the College of Arts and Sciences who meet the general semester hours and quality point average described in No. 2 above and who have completed at least ninety semester hours of course work in the departments and curricula of the College of Arts and Sciences (or the equivalents accepted for transfer credit from other institutions) are eligible for election. These students may apply by submitting a current UNC transcript as well as transcripts for all college course work taken elsewhere. Applications for fall initiation must be submitted no later than September 15. Applications for spring initiation must be submitted no later than January 20.
Policy on Credit for Internships - The College of Arts and Sciences

No internship automatically earns academic credit. Students may seek credit for internships in two ways:
- through consultation with the director of undergraduate studies in their major department (for course credit in the department);
- through consultation with the director of special studies, 3rd floor Steele Building.

For credit for SPCL91P-4.) Students are eligible to receive credit for an internship through SPCL 91P-4 if they meet the following criteria:
- they have a GPA of 2.5;
- their internship has been approved by the coordinator for experiential learning programs (211 Hanes Hall) and they have worked with this office to complete a learning contract in the semester before they do the internship. The deadline for completing paperwork for an internship is two weeks before the last class day of the semester preceding the internship.

Students who have completed the preliminary paperwork may sign up for three or six hours of SPCL91P-4 for a PS/F grade only, in the semester following the internship.

Special Studies for Credit

The University offers a variety of internship experiential learning and special study opportunities for undergraduates. Variable amounts of credit up to six hours per semester and twelve hours total for graduation may be taken for graded credit. For Special Studies 90 and 91, no more than a maximum of seven hours may be taken for PS/D+/D/F grade.

Students may participate in either formalized programs such as UNITAS or the N.C. Fellows leadership program (Division of Student Affairs), or may make individualized contracts for work under the supervision of a member of the permanent faculty.

Interested students should see the assistant dean in charge of registration for these programs in the Arts and Sciences Advising Office at 314 Steele Building. Certain restrictions apply. For example, participation in the Student Government Tutoring program is limited to six hours of credit for two semesters.

Study Abroad

In an increasingly international world, living and studying in another culture is a crucial part of an undergraduate education. UNC-Chapel Hill's College of Arts and Sciences encourages students to study abroad as a part of their undergraduate programs. Students usually participate in programs abroad during their sophomore or junior year, but seniors and graduates may apply for many of the programs.

Only a few programs are limited to certain majors, but most require a solid academic record. All programs are pre-approved for credit; students may fulfill elective, language, perspective, and major requirements abroad though major credit must be approved by individual departments.

Students who participate in University-approved programs remain registered at UNC-Chapel Hill so that they do not lose their academic standing and are able to participate in preregistration of courses for the semester they will return to UNC-Chapel Hill. Upon returning to UNC-Chapel Hill, the student's foreign transcript is evaluated by a Study Abroad Office staff member who consults with academic department representatives as appropriate. The courses taken abroad are then listed on the official UNC transcript as TREQ (Transfer Equivalent) followed by a number that identifies what requirement the course(s) will satisfy. TREQ abbreviation use began in spring 1997. Students may apply their usual need-based financial aid to study abroad costs, and several scholarship and additional loan programs are available to all students.

UNC-Chapel Hill offers a wide variety of opportunities at foreign institutions all over the world. The Study Abroad office operates six programs and approximately thirty-one exchange programs. An exchange program allows a student to pay UNC-Chapel Hill tuition and in some instances, room and board, and exchange places with a student from a foreign institution. Many more study abroad programs run by other institutions have been approved for study.

Programs are available in all Western European countries, in Israel, Greece, Hungary, Poland, and Czech Republic; in Asia and the Pacific Rim: Australia, Japan, China, India, South Korea, Nepal, Thailand, Vietnam, Indonesia, and Western Samoa; in Africa: Morocco, Ghana, Cameroon, Kenya, Tanzania, Madagascar, Zimbabwe, Botswana, South Africa; in the Americas: Canada, Mexico, Venezuela, Ecuador, Brazil, Bolivia, Chile, and Argentina. Program development is on-going.

Language programs are offered on the beginning, intermediate, and advanced levels. Because English is prevalent, many programs do not require previous study in a foreign language, although a beginning course in the native language in normally a part of such programs.

Through informational meetings and individual counseling, the Study Abroad Office staff assist students in choosing the best programs for their needs, in devising and academic schedule, and in making housing arrangements. The Study Abroad Office requires students to attend a pre-departure program during which students participate in cross-cultural learning exercises and receive valuable information regarding safe travel, managing money abroad, credit issues, and homesickness. The office maintains contact with the students while abroad and provides a re-entry program upon their return to UNC-Chapel Hill.
Academic Departments

Undergraduate courses usually offered in regular sessions of the University are listed in the following section except courses in the schools of Business Administration, Education, Journalism and Mass Communication, the School of Public Health’s undergraduate degree programs, and the School of Medicine’s Department of Medical Allied Health Professions. Please refer to sections elsewhere in this catalog for information about those courses.

Where possible following each course description, the course director is listed first along with other faculty members teaching the course.

The following section does not include courses offered by the professional schools of Law, Medicine, Dentistry, Nursing, Pharmacy, and Social Work. For those courses, refer to bulletins from those schools.

Although the Summer School offers many courses described here, the Summer School publishes a separate bulletin of course offerings.

The requirements for majors and minors are shown in connection with the materials concerning the various departments.

The work of the University is arranged and offered on the semester system, the regular session being divided into two approximately equal parts called the fall and spring semesters. The Summer School is divided into two sessions.

Work is valued and credited toward degrees by semester hours, one such hour usually being awarded for each class meeting per week for a semester. One hour of credit is usually awarded for each three hours of laboratory or field work or work in studio art. In the following lists of courses, the numbers in parentheses after the descriptive titles show the credits allowed in semester hours.

Department of Aerospace Studies

Professor
John Glessner, Lieutenant Colonel, USAF.

Assistant Professors
Leroy Morgan, Major, USAF; Richard Bailey, Major, USAF.

The Department of Aerospace Studies has been an integral part of the University’s tradition of scholarship, excellence, and achievement since 1947. As the University accelerates into its third century of excellence as the nation’s oldest state university, the Air Force will continue to be a major contributor in helping UNC-Chapel Hill and its alumni command the future.

UNC-Chapel Hill, in turn, will continue to be a major contributor of outstanding leaders in defense of our country and way of life.

The Air Force Reserve Officer Training Corps (AFROTC) program provides both undergraduate and graduate students many opportunities. These opportunities include academics, scholarships and financial assistance, applied professional training, job placement, and some unique extracurricular activities. In many ways AFROTC is more than a department in the College of Arts and Sciences. It is also a professional organization designed to provide interested students growth and development opportunities beyond the classroom. Anyone interested in AFROTC can call the department at 962-2074.

AFROTC Program

Undergraduate students can enter the AFROTC program at the beginning of their freshman year (four-year program) or as late as the beginning of their junior year (two-year program). There is no commitment to the Air Force until the last two years of the program, or upon activation of a scholarship. The first two years are designed to allow a student to be introduced to the Air Force and the unique opportunities it offers. With this information a student can make an informed decision on whether the Air Force is of interest to her or him. Any student, graduate or undergraduate, however, can enter the commissioning track program if they have at least two years of full-time study remaining at the University. Application for entry into the AFROTC program is open to all students without discrimination. Students accepted into the program can participate fully in all aspects of the program without obligation to the Air Force, up to their last two years of study, or upon activation of a scholarship.

Anyone desiring an officer’s commission in the Air Force upon graduation must complete at least the last two years of our program. Completion of these last two years requires an obligation to serve in the Air Force as a commissioned officer, Second Lieutenant, upon graduation. Usually this commitment is only four years, but can be longer in professions requiring extended special training, as in the case of pilot, navigator, or physician.

The minimum requirement for acceptance to the first two years of the program is to be a full-time student at the University. Minimum requirements for consideration to enter the last two years of the program are a 2.0 GPA, U.S. Citizenship, to be medically qualified, to pass a physical fitness test, and to achieve minimum scores on the Air Force Officer’s Qualification Test. These and other factors will be considered before acceptance to the advanced program.
Facilities

The University has provided excellent facilities for use by students in the AFROTC program. These facilities are in the ROTC Armory near the center of campus. The building, an outstanding facility, was completely renovated by the University in 1995-1996.

Academics

The academic portion of the AFROTC program consists of eight courses (reference section on curriculum below), each with an associated lab period. All courses count as elective undergraduate credit.

The first two years of the program are referred to as the General Military Course (GMC) and are designed to introduce an interested student to the Air Force. These introductory-level classes meet once a week for an hour, with a two-hour lab once a week. A student can enter, as well as leave, AFROTC at any point while in the GMC unless obligated by scholarship.

The second two years are referred to as the Professional Officer Course (POC) and are designed to prepare an individual to become a commissioned officer (second lieutenant) in the Air Force. The upper-level courses meet three times a week for an hour, with a two-hour lab once a week. Entry into the POC is competitive. Once accepted, a student is obligated to serve in the active duty Air Force upon graduation. Acceptance not only involves the Air Force accepting the student, but also the student accepting the Air Force.

Scholarships and Financial Assistance

Any student can apply for a three- or two-year scholarship, after joining AFROTC, funding permitting. These scholarships, in most cases, cover tuition, books, fees, and provide a $150.00 per month tax-free allowance. Scholarships are available for a variety of technical and language degrees. There are approximately twenty to thirty students attending UNC-Chapel Hill via AFROTC scholarships in any one year.

There are also specialty scholarships for premed students. If accepted for a premed scholarship, the support is as above with the added feature that you are guaranteed acceptance into the Armed Forces Health Profession Scholarship Program (AFHPSP) once accepted into a medical school. AFHPSP pays for all your medical school, plus a $962.00 per month allowance, and provides unique limited clinical practice opportunities, for which you receive full pay and allowances as a second lieutenant.

Nonscholarship students accepted into the POC are also given a $150.00 per month tax-free allowance, and may be eligible for a $1,000 per semester scholarship.

Applied Professional Training

The activities listed below are available during the summer between a student’s freshman/sophomore and junior/senior years. Each student receives various pay and allowances, depending on the situation, while attending each activity. Travel, room, and board are also provided by the Air Force.

Light Aircraft Training: Four weeks flying training/screening for pilot candidates.

Professional Development Program: Two weeks working directly with an experienced commissioned officer at an active duty base in a career field of interest to the student.

British Exchange: Two weeks in England working with their university’s AFROTC-like unit and the Royal Air Force.

Cadet Training Assistant: Five to seven weeks as a field training instructor at various locations all over the U.S.

Airborne Training: Three weeks at the Army Airborne School.

USAF Academy Parachute Training: Two weeks free-fall training in Colorado Springs, CO.

Field Training Program

For entry into the POC, attendance at a summer Field Training (FT) encampment is mandatory. This usually occurs between the sophomore and junior years. For four-year GMC cadets, FT is four weeks long. For two-year cadets who have not participated in the GMC, FT is six weeks long. FT is an intensive leadership-followership training experience designed to place cadets under mental and physical stress, and their performance under stress is evaluated. FT also serves to familiarize cadets to an Air Force base environment, Air Force missions, and all cadets receive a military aircraft flight.

Guaranteed Job Placement

Entry in the POC and obligation to the Air Force guarantees an applicant a job (i.e., pilot, navigator, nurse, lawyer, or missile control) or job category (i.e., technical or nontechnical) in the Air Force. This process is based on the needs of the Air Force and the desires of the student.

Extracurricular Activities

The AFROTC experience is much more than classroom studies. Students participate in a wide range of other activities. These include Arnold Air Society, formal dinners and dances, colorguard at major university athletic events, regional intramural athletic events, field trips to military facilities around the country, arranging for and escorting recognized guest speakers, and publishing a newspaper, the Ramjet. Students hold a number of seasonal parties and fund raising events.

Arnold Air Society (AAS) is a national professional society dedicated to furthering the traditions, purposes, and concepts of the U.S. Air Force as a military organization and a professional calling. AAS also maintains the close relation-
ship between AFROTC cadets and the active Air Force. As a national award winner, the local AAS chapter is active nationwide and attends the national convention each year.

Curriculum

General Military Course (GMC)

(NOTE: Students entering AFROTC as juniors complete the equivalent of the freshman and sophomore year course work at a summer camp, during which they are paid a salary. Travel, room, and board are provided by the Air Force.)

Freshman Year

AERO 11a U.S. Air Force Today (1). An introduction to Air Force organization, mission, doctrine, offensive, and defensive forces. There is one lecture per week. Fall. Staff.

AERO 11b U.S. Air Force Today (1). Examines the role of strategic, general purpose, and aerospace support forces in national defense. There is one lecture per week. Spring. Staff.

Sophomore Year

AERO 12a Growth and Development of American Air Power (1). A historical survey of the development of American air power from its origins through its use in Operation Desert Storm. This course also emphasizes communication and leadership skills, and includes an assessment of written communication capability in a term paper. There is one lecture per week. Fall. Staff.

AERO 12b Continued Introduction to the Air Force (1). A study of communication skills, Air Force organizational structure, leadership tools, and skills required of Air Force officers. The course includes an assessment of oral communication skills through classroom presentations. There is one lecture per week. Spring. Staff.

AERO 31a Leadership Laboratory (0). (Freshmen, sophomores) Required for all AFROTC GMC students. This laboratory is conducted by the cadet corps and involves career opportunities in the USAF, life and work of the USAF junior officer, and military ceremonies. There is one period per week. Fall and spring. Staff.

Professional Officer Course (POC)

Junior Year

AERO 57 Contemporary Leadership and Management (3). This is the first part of a two-part course concerning contemporary leadership and management. Emphasis will be on modern-day experiences, successes, and failures, with various theories on how to motivate people, organize, and manage. Lectures and discussion focus on application of various principles as an Air Force officer. Class participation, comprehension, and oral communication skills will be stressed. Staff.

AERO 65 Contemporary Leadership and Management (3). This is the second part of the course described above. Class participation, comprehension, and written communication skills will be stressed. There are two lectures per week. Staff.

Senior Year

AERO 149 National Security Defense Policy (3). A survey and analysis of national security affairs, defense policy, and the role of the military. Emphasis is on current trends and dynamics domestically and internationally, and what they may mean for the future. Lectures and discussion will center on gaining insight on the issues facing military officers today and the near future. Class participation, comprehension, and oral communication skills are stressed. There are two or three lectures per week. Fall. Staff.

AERO 51 The Military and Contemporary Society (3). A survey and analysis of the major issues of officership in the Air Force. Lectures and discussions will center on gaining insight into the military officer today and the near future, military law, ethics, law of armed conflict, and preparing for active duty as a Second Lieutenant. Class participation, comprehension, written, and oral communication skills will be stressed. Spring. Staff.

AERO 71L Leadership Laboratory (0). (Juniors, seniors) One laboratory per week is required for all AFROTC students. Fall and spring. Staff.

Desideratum Courses

In addition to the above AFROTC courses students are required to complete the following desideratum courses.

GMC: Either Political Science 52, Political Science 86, History 18, or Physics 84 in their freshman or sophomore year.

POC: Juniors: PWAD 68.

Seniors: History 69 or PWAD 77, History 89 or PWAD 78, History 142 or PWAD 142, History 152 or PWAD 152, Political Science 141 or PWAD 141, or Political Science 151.

Department of African Studies and Afro-American Studies

JULIUS E. NYANG'ORO, Chair

Professors

Gerald Horne, Julius E. Nyang'o, Bereket H. Selassie.

Associate Professors

Roberta Ann Dunbar, Reginald Hildebrand, Kenneth Janken, Catharine Newbury.

Assistant Professors

Perry Hall, Michael Lambert, Valerie Kaalund, Michael West.

The Department of African and Afro-American Studies is an interdisciplinary program leading to the B.A. degree. It is administered through the College of Arts and Sciences. Prospective majors should see the department chair.

The current goal of African and Afro-American Studies at UNC-Chapel Hill is to give specific and precise attention to the histories, cultures, and cultural linkages of the peoples of Africa and their descendants in the New World. Although students must concentrate in either African or Afro-American Studies, all majors must gain competence in both areas and thereby come to understand the cultural and historical continuities and contrasts between Africa and the African New World.

The purpose of the African Studies concentration is to develop an analytical approach to contemporary Africa. Courses stress the importance of traditional values and insti-
tutions to the definition of modern African society, and stress the historic range of commercial and political relationships with Europe and the New World. The purpose of the concentration in Afro-American Studies is to develop a broad knowledge of the history and culture of the peoples of African descent in the Americas and the significant social, political, economic, and humanistic issues they face.

**Major Requirements**

**General College:**

All General College perspective requirements apply. A modern foreign language is required; Swahili is encouraged for students concentrating in AFRI. Prospective majors are encouraged to include AFRI 40 and AFAM 40 or 41 in the General College program.

**College of Arts and Sciences:**

All College of Arts and Sciences perspective requirements apply. Courses from the major department may be used to fulfill Arts and Sciences perspective requirements. Students must earn at least eighteen hours of "C" or higher in the core courses.

**Concentration in Afro-American Studies:**

The major requires the completion of ten courses (thirty hours) including five core courses as follows:

AFRI 40, AFAM 40, 41, 70, and AFRI-AFAM 174.

The remaining fifteen hours should be chosen from any of the Afro-American Studies courses offered by the curriculum, including courses cross-listed with other units. At least one of these additional courses should be numbered 100 or above. Frequently offered courses include: AFAM 58, 59, 65, 66, 74, 76, and 128.

**Concentration in African Studies:**

CORE COURSES: AFRI 40, AFAM 40 or 41, ANTH 26, POLI 59, and AFRI/AFAM 174; plus one of the following: HIST 38, 39, 78, 79, and 193; plus two of the following: AFRI 60, 61, 62, 63, 64, 65, 66, and 90; plus one of the following: AFRI 120, 121, 122, and 123; plus one of the following: AFRI 190 (permission only), ANTH 126, 155, and 160; PLAN 124, ECON 169, GEOG 168, HIST 194A, POLI 126, 130; COMM 149, and RELI 150.

**Minor Requirements**

**Concentration in Afro-American Studies:**

The undergraduate minor in Afro-American Studies requires the completion of five courses (fifteen hours) including three core courses listed below. Only one minor course may be used to fulfill a General College perspective requirement; no minor course may be used to fill an Arts and Sciences perspective requirement.

**Core Courses:**

AFRI 40, AFAM 40 and 41. The remaining six hours may be chosen from any of the Afro-American Studies courses offered by the curriculum, including courses cross-listed with other units, such as: AFAM 90 (ANTH 90, RELI 90), AFAM 106 (SWOW 106); AFAM 112 (JOMC112), and AFAM 130 (AFRI 130, WMST 130).

**Concentration in African Studies:**

The undergraduate minor in African Studies consists of fifteen hours. Students are strongly encouraged to take AFRI 40 in General College. Only one minor course may be used to fulfill a General College perspective requirement; no minor course may be used to fill an Arts and Sciences perspective requirement.

**Required Course:**

AFRI 40. Four additional courses, selected in consultation with the African Studies advisor, two of which must be chosen from list A and one at the 100-level.

**LIST A:**

AFRI 60, 61, 62, 63, 64, 65, 66, 120, 121, 122, 123, and AFRI/AFAM 174.

**LIST B:**

ANTH 26, 126; POLI 59, 126, 130; GEOG 168, and HIST 38, 39, 79, 193, 194A, 194B.

**Honors in African and Afro-American Studies**

Students with an overall GPA of 3.2 at the beginning of their senior year are encouraged to apply for candidacy for the B.A. with honors. Students interested in undertaking Honors research and the writing of a thesis should consult with the undergraduate studies adviser as early as possible. Approved candidates will enroll in AFAM or AFRI 98A and 98B Honors Research I and II. These courses will count as part of the major requirement in lieu of one course to be determined in consultation with the advisor and with the approval of the chair.

**African Studies Course Descriptions**

**African Studies 40 Introduction to African Civilization.** (3). Introduction to principal features of African civilization through examination of geopolitical context; historical themes; and selected social, political, economic, religious, and aesthetic characteristics of both traditional and modern Africa.

**African Studies 60 Topics in African Studies** (3). A seminar for junior majors in the curriculum and others with some background in the study of Africa. Discussion and research papers on one topic selected for emphasis each semester: e.g., urbanization, literature, etc.

**African Studies 61 African Women: Changing Ideals and Realities** (WMST 61) (3). Introduction to recent literature, theoretical questions, and methodological issues concerning study of women in Africa. Topics include women in traditional society, impact of colonial experience and modernization on African women.

**African Studies 62 African Literature** (3). Introduction to the traditional and modern literature of Africa. Works studied include traditional poetry and the epic as well as examples of the poetry, drama, and fiction of contemporary anglophone and francophone writers.
African Studies 63 African Belief Systems: Religion and Philosophy in Sub-Saharan Africa (3). The relationship between religion and society in Sub-Saharan Africa is explored through ethnographic and historical readings. The Nilotic, Bantu, and West African religious traditions are examined in detail.

African Studies 64 African Art and Culture (3). Introduction to the plastic arts of sub-Saharan Africa through study of their relationship to the human values, institutions, and modes of aesthetic expression of select traditional and modern African societies.

African Studies 65 Political Processes and Economic Developments in Africa (3). A seminar that critically examines the historical and theoretical basis of the state's centrality in economic development in African countries. Relevant case studies drawn from Sub-Saharan Africa.


African Studies 68 Political Protest and Conflict in Africa (3). This course surveys contemporary forms of political conflict and protest in Africa. The nature, causes, and consequences of these conflicts will be examined. Spring. Lambert.

African Studies 70 Policy Problems in African Studies (3). A seminar for senior majors and others with some background in the study of Africa. Lectures, readings, and research projects on one problem each semester concerning policy formation by African leaders or on United States-Africa policy issues.

African Studies 80 Ethnography of Africa (3). By examining ethnographic text, students will learn about topics in African studies such as systems of thought, aesthetics, the economy, politics, social organization, identity, and the politics of representation. Fall. Lambert.

African Studies 90 Independent Studies (Var.). Independent study project designed particularly in conjunction with overseas study.


African Studies 98B Honors Research II (3). Completion of an honors thesis under the direction of a member of the faculty. Required of candidates for graduation with honors in African Studies. Nyang’oro, Newbury, Dunbar.

African Studies 115 Field Research Methods in African Studies (3). Prerequisite, Afri 40 or equivalent. This course will prepare students to conduct field research in Africa by looking at: how to write a proposal, how to get research permission, and how to collect qualitative data. Spring. Lambert.

African Studies 118 Topics in African Art (ART 118) (3). Prerequisite, one course in related area. An upper-level seminar designed to investigate selected topics in narrowly defined areas of African art.

African Studies 120 Contemporary Southern Africa (P'WAD 121) (3). Prerequisite, AFRI 40 or equivalent. Study of the history, politics, and economic development of Southern Africa in the twentieth century. Nyang’oro.


African Studies 122 West Africa: Society and Economy in the Twentieth Century (3). Prerequisite, AFRI 40 or equivalent. Interdisciplinary course on twentieth century West Africa. Topics vary but are likely to include demography and health, gender, urbanization, labor, religion and politics, and education. Dunbar.

African Studies 123 Central Africa: The Politics of Development (POLI 119) (3). Prerequisite, AFRI 40 or equivalent. Study of the postcolonial political economies of central African states, with emphasis on the state's role in development, the changing character of state/society relationships (including recent pressures for democratization); and the local impact of regional and global external linkages. Newbury.

African Studies 124 North-East Africa. (3). Prerequisite AFRI 40 or equivalent. This course covers the history of colonial governments between the end of World War II and the onset of decolonization (1919-1994) in North-East Africa and the region's political systems thereafter. Selassie.

African Studies 130 Culture, Gender, and Participatory Development (AFAM 130, WMST 130) (4). Prerequisite, relevant courses/experience; permission of instructor. Participatory development theory and practice in Africa and the U.S. are examined in the context of other intervention strategies and with special attention to culture and gender. Seminar plus practicum. For African Studies majors and other qualified students. Spring. Dunbar, Newbury, Nyang'oro.

African Studies 131 Practicum in African Studies (Var.). Prerequisites, AFRI 40 or comparable course and permission of the supervisor. Internship in Africa or in organization concerned with African issues. Reading and reporting requirements set by supervisor. For African Studies majors and other qualified students. Fall, spring, summer. Dunbar, Nyang’oro, Newbury.

174 Key Issues in African and Afro-American Linkages (AFAM 174) (3). For advanced undergraduates and graduate students. This course is intended to explore theoretical and methodological issues concerning the historical linkages between African and Afro-American peoples.

African Studies 190 Independent Studies (Var.). Independent study projects defined by student and faculty adviser for advanced undergraduate and graduate students. Staff.

Elementary Kiswahili I (3). Introduces the essential elements of Kiswahili structure and vocabulary and aspects of African cultures. Aural comprehension, reading, speaking, and writing are stressed. Fall.

Elementary Kiswahili II (3). Prerequisite, SWAH I. Continues the introduction of essential elements of Kiswahili structure and vocabulary and aspects of African cultures. Aural comprehension, reading, speaking, and writing are stressed. Spring.

Intermediate Kiswahili III (3). Third semester Kiswahili, designed to increase reading and writing skills. Introduction of literature. Aural comprehension and speaking skills stressed. Fall.

Intermediate Kiswahili IV (3). Prerequisite, SWAH III. Fourth semester Kiswahili, designed to increase reading and writing skills. Introduction of more compound structures. Emphasis on literature, including drama, prose and poetry, and creative writing. Aural comprehension and speaking skills stressed. Spring.

Intensive Kiswahili 1-2 (6). The 1-2 course covers the material in the SWAH I and SWAH II sequence in a single semester. Fall, spring, and summer.

Intensive Kiswahili 3-4 (6). Prerequisite, SWAH 1-2, or SWAH II. The 3-4 course covers the material in the SWAH III and SWAH IV in a single semester.

Afro-American Studies Course Descriptions

Afro-American Studies 9 (Education 9) Freshman Seminar (3). Small group interaction with contemporary human and race relations as focus for study and discussion. Emphasis on increasing personal and racial awareness aimed at enhancing and improving relationships between students with varied racial and ethnic backgrounds.

Afro-American Studies 40 The Black Experience (3). An interdisciplinary course designed to provide a broad survey of the Black experience in the Americas with special emphasis on the sixteenth, seventeenth, and eighteenth centuries.
Afro-American Studies 41 The Black Experience (3). An interdisciplinary course designed to provide a broad survey of the Black experience in the Americas with special emphasis on postemancipation developments.

Afro-American Studies 45 African American Art Survey (ART 40) (3). An introduction to African American art and artists: their social contexts from early slavery through the twentieth century.

Blacks in Latin America 54 (3). The majority of people of African descent in this hemisphere live in Latin America. This course will explore various aspects of the Black experience in Latin America.

Afro-American Studies 55 Afro-American Political Philosophy (PHIL 55) (3). A philosophical examination of the writings of African Americans on slavery, race, and discrimination. Among the main figures to be studied are Martin Delany, Frederick Douglass, Booker T. Washington, W. E. B. DuBois, Marcus Garvey, and Martin Luther King.

Afro-American Studies 58 The Civil Rights Movement (3). An examination of the struggle by Black Americans for social justice since World War II and of the systemic responses.

Afro-American Studies 59 Black Influences on Popular Culture (3). This course examines the influence of African American expressive culture, particularly popular music, on American mainstream culture.

Afro-American Studies 60 Junior Seminar (3). An examination of the principal historical, philosophical, and research issues underlying Afro-American Studies. Emphasis on the theoretical and methodological concerns related to the conduct of research on Afro-American peoples.

Afro-American Studies 62, 63 Foundations of Black Education (3 each). The first semester deals primarily with sources of education for slaves and free Blacks before the Civil War while the second semester addresses policy considerations underlying public education for Blacks since the Civil War.

Afro-American Studies 66 Black Women in America (WMST 65) (3). An examination of the individual and collective experiences of Black women in America from slavery to the present and the evolution of feminist consciousness.

Afro-American Studies 65 Topics in Afro-American Studies (3). Intensive analysis of a selected topic related to the Black experience. Topic will vary with the instructor.

Afro-American Studies 67 Afro-American Leadership Styles (3). From a vast array of leadership styles students are expected to research a major figure and analyze his or her leadership behavior. Studies will examine critically the ideological and programmatic responses of Black leaders to the socio-political-economic problems of Black people.

Black Nationalism in the United States 69 (3). This course traces the evolution of Black nationalism, both as an idea and a movement, from the era of the American Revolution to its current Afrocentric expressions. Fall. West. BA-level western historical perspective; cultural diversity requirement.

Afro-American Studies 70 Seminar in Afro-American Studies (3). An examination of the historical, philosophical, theoretical, and methodological issues underlying the field of Afro-American studies. For junior and senior AFAM majors. Major research paper required.

Afro-American Studies 71 Field Research in the Black Experience (3). Individual research and practicum. Registration by permission of the instructor.

Afro-American Studies 73 Blacks and Criminal Justice (3). An examination of the problems of Black Americans as they relate directly to criminal justice.

Afro-American Studies 74 Emancipation in the New World (History 71) (3). Will examine the way that the process of emancipation unfolded in Haiti, Jamaica, and Cuba, with major emphasis on emancipation in the United States. Fall, spring. Hildebrand. BA-level western historical perspective; cultural diversity requirement.

Afro-American Studies 75 The Music of African Americans (3). A study of the meaning of Black music, the cultural, social, and political influences that have resulted in its creation, and its functions in past and present Black communities.

Afro-American Studies 76 The African American in Motion Pictures: 1900 to the Present (3). This course will analyze the role of the African American in motion pictures, explore the development of stereotypical portrayals, and investigate the efforts of African American actors and actresses to overcome these portrayals. Register.

Afro-American Studies 77 Twentieth-Century African American Art (ART 73) (3). This course will focus upon the expression of African Americans in the United States in the twentieth century with some discussion of Caribbean and South American art.

Afro-American Studies 81 The African Impulse in African American Art (ART 81) (3). This class will examine the presence and influences of African culture in the art and material culture of Africans in the Americas from the colonial period to the present.

Afro-American Studies 88 Black Thought and Black Intellectuals in the Nineteenth and Twentieth Centuries (3). An examination of the principal intellectual trends in Black life during the nineteenth and twentieth centuries as well as the life and work of the intellectuals. Janken.

Afro-American Studies 90 African-American Religious Experience (ANTH 90, RELI 90) (3). Prerequisite, students must have taken at least one course in AFAM, ANTH, or Religious Studies. An introduction to the diversity of African American beliefs, experiences, and expressions from the colonial era to the present. Exploration will be both historical and thematic. Hinson, Maffly-Kipp. Cultural diversity requirement.

Afro-American Studies 94A Black Arts and Black Aesthetics (3). The concept of the Black aesthetic as it is manifested in Black American performing, visual, literary, and musical arts.

Afro-American Studies 98A Honors Research I (3). Readings in Afro-American Studies and beginning of directed research on an honors thesis. Required of all candidates for graduation with honors in Afro-American Studies. Fall.

Afro-American Studies 98B Honors Research II (3). Completion of an honors thesis under the direction of a member of the faculty. Required of all candidates for graduation with honors in Afro-American Studies. Spring.

Afro-American Studies 106 Racism: Implications for Human Services (SOWO 106) (3). The organizing focus for this course will be how to work with minority groups, especially African Americans. The conceptual framework will be directed toward relationship building to enhance service delivery.


Afro-American Studies 115 Minority Children: Psychological and Cognitive Development (EDFO 115) (3). An analysis of research theory and programs regarding the social and cognitive development of minority children.

Afro-American Studies 122 DuBois, Howard Thurman, and Malcolm X (3). Examines the ideas of the scholar, W. E. B. DuBois; theologian, Howard Thurman; and political theorist, Malcolm X. Major issues will be conceptualized from the distinct perspectives represented by those leaders. Hildebrand.

Afro-American Studies 130 Culture, Gender, and Participatory Development (AFRI 130, WMST 130) (3). Prerequisite, relevant courses/experience; permission of instructor. Participatory development theory and practice in Africa and the United States are examined in the context of other intervention strategies and with special attention to culture and gender. Seminar plus practicum. For African Studies majors and other qualified students. Spring, Dunbar, Newbury, Nyang'o.

Afro-American Studies 150 The Black Church in America (3). A survey of the historical development of the Black church in America, beginning during the antebellum period and continuing to the present day. Spencer.

Afro-American Studies 160 The Harlem Renaissance (3). A study of the meaning, goals and strategies, and periodization of the Harlem Renaissance in order to determine whether the movement was a failure or a success.

Afro-American Studies 169 African American Women’s History (HIST 169, WMST 169) (3). The course covers the history of Black women in United States history from the eighteenth century to the present. It deals with such themes as work, family, community, sexuality, politics, religion, and culture. Hunter.

Afro-American Studies 174 Key Issues in African and Afro-American Linkages (AFRI 174) (3). For advanced undergraduates and graduate students. This course is intended to explore theoretical and methodological issues concerning the historical linkages between African and African American peoples.

Afro-American Studies 178 Topics in African American Art (ART 178)(3). Prerequisite, one course in related area. An upper-level seminar for the investigation of narrowly defined areas of African American art. Fall, spring. Harris.


Afro-American Studies 190 Independent Studies (Var). Independent study projects defined by student and faculty adviser for advanced undergraduate and graduate students. Staff.

Curriculum in American Studies

TOWNSEND LUDINGTON, Chair

Professors
Joy Kasson, Robert Allen.

Associate Professor
Rachel Willis.

Adjunct Professors

Adjunct Associate Professors
Robert Cantwell, Charles Capper, James Coleman, Laurie Maffly-Kipp, Margaret O’Connor, Thomas Tweed, Annette Cox Wright.

Adjunct Assistant Professor
Anna McCarthy.

The Curriculum in American Studies, an undergraduate program leading to the Bachelor of Arts degree, offers students an opportunity to examine American culture from a variety of perspectives. Works of history, literary and artistic expression, social and political analysis are studied with the aim of discovering interrelationships among different aspects of our culture.

Bachelor of Arts with a Major in American Studies

Regular Concentration Requirements:

General College:

HIST 8H, HIST 22, or AMST 20. AMST 20 is a General College course designed to introduce freshmen and sophomores to issues of American culture. It meets one of the requirements for the Western Historical/Non-Western Comparative Perspective. It has also been approved for the upper-level B.A. perspective (majors cannot use this).

Core Courses: Eight Courses

AMST 40
AMST 60 or 61 or 62 or 63
AMST 80

Literature: One of the following:

English 80, 81, 82, 83

Ideas: One of the following:

PHIL 59, RELI 68, POLI 62, 155, 162, HIST 154, 155

Arts: One of the following:

ART 43, MUSC 45, 135, ENGL 146, 147, 187, HIST 156

Social Cultures & Subcultures: One of the following:

HIST 65, 72, 159, 161, 162, 163, 164, 167, 168, ANTH 105, 130, POLI 136, 171, SOCI 15, 22, GEOG 149, 154.

Afro-American Culture: One of the following:

AFAM 40, 41, 72, ENGL 84, 85, 184, 189, HIST 165, 166

In addition, students are required to fulfill four of five Arts and Sciences Perspectives requirements.

Southern Studies Concentration Requirements

General College: One of the following:

HIST 8H, HIST 22, AMST 20

Core Courses: Eight courses

AMST 40
AMST 60 or 61 or 62 or 63
AMST 80,

ENGL 88 or 188
HIST 163
HIST 164
Southern Culture: One of the following:
ANTH 105, GEOG 161, POLI 136, SOCI 15

Afro-American Culture: One of the following:
AFAM 40, 41, 72ENGL 84, 85, 184, 189
HIST 165, 166

Four Arts and Sciences Perspectives requirements.

Minor in American Studies
The undergraduate minor in American Studies consists of five courses and one prerequisite course at the General College level.

Prerequisite course: One of the following:
HIST 8H - Honors in American History since 1865
HIST 22 - American History since 1865
AMST 20 - The Emergence of Modern America

Five required courses:
AMST 40, AMST 60, 61, 62, and 63, AMST 80

Two from the following:

Literature: ENGL 80, 81, 82, 83
Ideas: PHIL 59, RELI 68, POLI 62, 155, 162, HIST 154, 155
Arts: ART 43, MUSC 45, 135, ENGL 146, 147, 187, HIST 156

Social Cultures and Subcultures: HIST 65, 72, 159, 161, 162, 163, 164, 167, 168 ANTH 105, 130, POLI 136, 171, SOCI 15, 22, GEOG 149, 154.

Afro-American Culture: AFAM 40, 41, 72, ENGL 84, 85, 184, 189, HIST 165, 166

Course Descriptions
20 The Emergence of Modern America (3). Interdisciplinary examination of two centuries of American culture focusing on moments of change and transformation. Lecture and discussion. Fall and spring. J. S. Kasson.

34H Defining America (3). An interdisciplinary course for junior-senior honors students that considers what it has meant to be “American” from colonial times to 1865. Fall.

35H Defining America (3). An interdisciplinary course for junior-senior honors students that considers what it has meant to be “American” during the period 1866 to present. Spring.

40H Approaches to American Studies (3). A study of interdisciplinary methods and the concept of American Studies. Fall and spring.

60-63 American Studies Junior Seminar (3). Special studies in American studies. Fall and spring.

64 American Studies Junior Seminar (3). Special studies in American studies. Fall and spring. BA-level social science perspective.

80 American Studies Senior Seminar (3). Studies of American topics from a broad cultural perspective. Fall and spring.

90, 91 Honors in American Studies (3 each). Directed independent research leading to the preparation of an honors thesis and an oral examination on the thesis. Required of candidates for graduation with honors in American Studies. Fall and spring.

94 The University in American Life: The University of North Carolina (3). This capstone course is for juniors and seniors and is multifaceted in its inquiry into the role of the University in American life. UNC used as the case study. Fall. Willis.

94L The University in American Life: The University of North Carolina Laboratory (1). Prerequisite, AMST 94. Field laboratory explores UNC campus sites and Triangle-area Universities. One four-hour laboratory a week.

96 Independent Study in American Studies (3). Permission of the chair required. Directed reading under supervision of a faculty member. Fall and spring.

Department of Anthropology

DOROTHY C. HOLLAND, Chair

Professors
Carole L. Crumley, Terence M. S. Evens, Kaja Finkler,
Dorothy C. Holland, Norris B. Johnson,
Clark Spencer Larsen, Catherine Lutz, James L. Peacock,
Vincas P. Steponaitis, Bruce P. Winterhalder.

Associate Professors
Robert E. Daniels, Judith B. Farquhar, Glenn D. Hinson,
Paul W. Leslie, Donald M. Nonini.

Assistant Professors
Marisol de la Cadena, C. Margaret Scarry, Margaret Wiener.

Adjunct Professor
Sue E. Estroff.

Adjunct Associate Professor
Thomas Arcury.

Adjunct Assistant Professor
Valerie A. Kaalund, William S. Lachicotte,
Michael C. Lambert.

Research Professor
Stuart Marks.

Research Associate Professor
Scott Madry, John F. Scarry, Debra Skinner.

Research Assistant Professor
Laurie C. Steponaitis.

Anthropology
Anthropology as a distinctive social science provides students with the theories and methods associated with “fieldwork,” that is, the systematic study of human cultures and social life in everyday settings beyond the abstractions of the classroom, library, or laboratory. Today, when anthropologists also study their own culture and society, they seek to cultivate the perspective that both should be viewed as
"strange." This perspective derives from the history of anthropology as the systematic study of "other" cultures and societies — that is, those that appear especially different from the anthropologists' own cultural and social standpoints.

As such, anthropology offers the undergraduate student one of the best introductions possible to our past and contemporary worlds characterized by increasing cultural diversity, by global, international, and regional interconnectedness, by important cultural innovations, and most recently, by interdisciplinary and cross-disciplinary discovery.

At UNC-Chapel Hill, the Department of Anthropology does this through a major that seeks to integrate students' experiences by: (a) providing the analytical skills and methods needed to understand the physical world and the human place within it, in the evolution and ecology of the human species; (b) cultivating the capacities needed to interpret the widely differing cultural and meaning systems of our world; and (c) offering methods and skills needed for analyzing and interpreting the unequal relations between human collectivities and groups encountered in everyday practices and language.

Anthropology majors thus develop the written and oral skills and abilities needed to live and work in a complex world marked by an accelerated rate of social and cultural change. Anthropology majors acquire the general preparatory attitudes and skills valued within a large number of occupations and professions, including but not limited to professional anthropology.

The Anthropology Department at UNC-Chapel Hill

Given anthropology's unique foci, the department's courses are intended to open systematically perspectives on the nature of humankind. To achieve this objective, the department organizes its anthropology courses into the following three concentrations: (a) Evolution and Ecology, that examines the evolution of the human and related species, and human adaptations to the environment in all their variability; (b) the Anthropology of Meaning, that seeks to interpret the meanings and symbols of cultures; and (c) Social Systems, that studies collectivities, social change, and relations between groups marked by inequalities of various kinds. In addition, the graduate program in anthropology includes courses from the Archaeology and Medical Anthropology programs, which may be of interest to many undergraduates.

Undergraduate Major

Anthropology 97, and twenty-four other credit hours in anthropology, normally eight other three-hour courses, are required for the major. Anthropology 97, Directions in Anthropology, the core course for majors, seeks to provide an integrative perspective on the theories and history of anthropology and on the significance of being an anthropology major. Anthropology 97 is normally to be taken in the junior year.

Of the eight other three-hour courses (or equivalents) required for the major:
• at least one three-hour course must be chosen from each of the three Concentrations;
• no more than three courses may be numbered below 90; and
• no more than nine hours of field-oriented course work (Anthropology 93, 99F, 151, or 161) can be counted toward the major requirement.

Of the nine courses for the major, six must be completed with a minimum grade of "C" or higher.

For majors seriously interested in anthropology, either as a career or as a resource for public life, it is recommended that they consider enrolling in Anthropology 98, Senior Seminar in Anthropology, offered once every academic year. Anthropology 98 considers the assumptions of the discipline of anthropology, the relations between anthropology and other disciplines, and the ethical implications of anthropological research. Anthropology 98 has limited enrollment. Although Anthropology 97 is not required as a prerequisite, the department recommends that it be taken prior to or in conjunction with Anthropology 98.

The department recommends that majors enroll in some field-oriented course work, such as Anthropology 93 (Internship in Anthropology), 99F (Special Projects), 151 (Field School in Archaeology), or 161 (Field School in Contemporary African Culture), or in Study Abroad course work.

The anthropology major must meet all Perspectives, electives, and other requirements in the College of Arts and Sciences. To ensure this, each anthropology major should consult with his or her adviser in the College of Arts and Sciences office in Steele Building at least once each semester.

Students interested in majoring in anthropology should obtain a copy of the Anthropology Major's Handbook and consult with the director of undergraduate studies.

Courses by Concentration in the Department:

**Evolution and Ecology Concentration:** ANTH 110, 112, 114, 115, 117, 139, 150, 151, 152

**Meaning Concentration:** ANTH 105, 121, 123, 125, 129, 132, 134, 135, 138, 141, 142, 145, 146, 170, 173, 174, 185, 188, 195, 196

**Social Systems Concentration:** ANTH 100, 120, 129, 130, 132, 133, 140, 141, 145, 149, 155, 157, 161, 162, 164, 165, 168, 170, 177, 178, 182, 185, 186

Other 100-level courses which are being offered for the first time or Anthropology 199 (one-time only "Special Topics" courses) may be designated by the director of undergraduate studies as satisfying one of these concentrations requirements. These designations will be circulated to undergraduate majors as early as possible but not later than two weeks prior to the preregistration period for the semester in question.
Undergraduate Minor in General Anthropology

The minor in general anthropology consists of five three-hour courses taken in the department, and is a viable option for students who have heavily demanding major requirements. A maximum of two courses may be numbered below 90; at least one course must come from each of the three Concentrations. No more than one course can be used to fulfill the General College Perspectives requirements. Students must have a grade of "C" or higher in at least four of the five courses, and at least three courses must be taken at UNC-Chapel Hill or in a program officially sponsored by the University. Students planning on a minor in anthropology should inform the director of undergraduate studies in the department.

Undergraduate Minor in Medical Anthropology

The department also offers a minor in medical anthropology especially appropriate for those planning for careers in medicine and health professions. This minor consists of five three-hour courses taken from the following: Anthropology 47, 114, 115, 123, 141, 170, and 173. No more than one course can be used to fulfill the General College Perspectives requirements. Students must have a grade of "C" or higher in at least four of the five courses, and at least three courses must be taken at UNC-Chapel Hill or in a program officially sponsored by the University. It is recommended that a student planning on a minor in anthropology so inform the director of undergraduate studies in the department.

Double Majors

Students may double major in anthropology and some other field. Students enrolling in anthropology as a second major should inform the director of undergraduate studies in the department.

Honors in Anthropology

Students with an overall grade average of 3.2 or higher are encouraged to apply for candidacy for the B.A. with honors. The aim of the honors program is to free the serious and well qualified student from some restrictions of the usual undergraduate course format by allowing the student to work closely with a small number of department faculty. The anthropology honors program requires an independent study and research project presented in the form of a thesis to the department.

Honors candidates must meet the same course requirements as other anthropology majors. In their senior year, honors candidates take Anthropology 95 and 96 in two consecutive semesters. These courses provide candidates with the opportunity to pursue original research for the thesis. Anthropology 95 and 96 are "controlled enrollment courses," which means that the student cannot register for them through CAROLINE, but must first confer with the director of undergraduate studies, who will register them for these courses. Honors candidates are encouraged to identify and contact an honors thesis adviser by the end of their junior year, and apply for financial aid for their thesis projects.

Candidates who complete and successfully defend a thesis before a committee consisting of their adviser and two readers may graduate with honors or highest honors. The awarding of highest honors for theses written in the department is extremely rare, and reserved for those very few and rare cases in which the examining committee determines that the project is exceptional even among honors degrees.

Students who are interested in becoming honors candidates should contact the department's director of undergraduate studies and consult the section on honors in the Anthropology Major's Handbook.

Independent Research, Internships, and Field Schools

Students who wish to explore an anthropological concern outside the conventional classroom setting, or who desire advanced or specialized work beyond current course offerings, should consider Anthropology 93, 99, 99F, 151, or 161.

Anthropology 93 provides anthropology students the opportunity to engage in internships or other field experiences within or beyond the University that have a significant anthropological learning component.

Variable credit may be obtained for this course. Anthropology 93 is a "controlled enrollment" course for which the student cannot register through CAROLINE; it requires the permission in advance of the faculty member sponsoring the internship, of a responsible official of the agency in which the internship is carried, and of the director of undergraduate studies, who will register the student. It is essential that students make arrangements and secure permissions prior to the semester of the internship. The Anthropology Major's Handbook provides important information for students preparing for Anthropology 93.

Anthropology 99 provides anthropology students the opportunity to engage in independent study, and Anthropology 99F the opportunity to engage in field research, under the mentoring of a specific faculty member. Variable credit may be obtained for these courses, although three units are usually expected. Anthropology 99 and 99F require the permission of the faculty member under whom the student wishes to conduct research prior to the semester in which Anthropology 99 or 99F are taken. Both are controlled enrollment courses for which the student cannot register through CAROLINE, but only through the director of undergraduate studies in the department. In general, this course should only be taken by students with at least some prior course work in anthropology or a related social science.

Anthropology 151 and 161 are six-unit field school courses in which the student gains hands-on experience in research and study in the field under the direction of a faculty member.

Anthropology majors are limited to having no more than nine credit hours of field-oriented course work (Anthropology 93, 99F, 151, or 161) count toward meeting the major requirement, although they are not restricted from enrolling in more than nine credit hours of these courses combined.
Anthropology Major's Handbook
The Anthropology Major's Handbook contains information for majors about major requirements, honors study, advice on anthropology career tracks, internships, and field schools. It can be accessed electronically at the following website:


Study Abroad
Anthropology majors are encouraged to enroll in a Study Abroad program. These programs can offer direct experience of another culture, intensive language training, as well as excellent course work in anthropology. By consulting with their departmental advisers as well as with UNC's Study Abroad Office, students can assess the relevance of available programs to their interests and arrange to transfer credit hours to count toward their undergraduate degree and, where appropriate, the anthropology major. Study Abroad programs are often affordable even to students who require financial aid. Information about student loans and scholarships for the purpose of studying abroad can be obtained from UNC's Study Abroad Office. Students may wish to consult the Summer School about its Study Abroad program.

Some Important Information on Anthropology Courses
The basic division in undergraduate anthropology courses is between lower-division courses numbered below 90 in the General College and upper-division courses numbered between 100 and 199 in the College of Arts and Sciences. Sophomores should not hesitate to take courses numbered 100 to 199 because of fears of their difficulty, but may wish to consult with the instructor before enrolling. Among anthropology courses numbered from 100 to 199, higher-numbered courses are not necessarily more difficult than those with lower numbers.

Course Descriptions
10 General Anthropology (3). An introduction to anthropology, the science of humans, the culture-bearing animal. Topics considered: human evolution and biological variations within and between modern populations, prehistoric and historic developments of culture, cultural dynamics viewed analytically and comparatively. Staff. General College social science perspective, cultural diversity perspective.

20 Anthropology through Expressive Cultures (3). Introduction to cultural analysis and the anthropological point of view through analytic and interpretive "readings" of films, fiction, and ethnography. Emphasis on social conditions and native points of view. Farquhar. General College non-Western/comparative perspective.

23 Habitat and Humanitity (3). Cross-cultural survey of types of residential architecture, including prehistoric dwellings, and sacred structures such as shrines and temples. Emphasis on architecture as symbolic form and cultural meaning. Johnson. General College aesthetic perspective.

26 The Peoples of Africa (3). Introductory ethnographic survey emphasizing cultural diversity of indigenous societies. Basic concepts used in analyzing African economies, political systems, marriage patterns and family organization, religious beliefs, etc. Daniels. General College/BA-level non-Western comparative perspective, cultural diversity perspective.

40 Southern Style, Southern Culture (Folklore 40) (3). An anthropological journey into the world of Southern meaning, exploring the interdependent realms of work, worship, aesthetics, ethnicity, gender, and the politics of culture. Designed as an introduction to anthropology. Hinson. General College social science perspective, cultural diversity perspective.

42 Local Cultures, Global Forces (3). Explores connections between local cultural expressions and global forces as both change over time. Particular attention to role of colonial domination in the creation of contemporary cultures and societies. Wiener, de la Cadena. BA-level non-Western comparative perspective, cultural diversity perspective.

43 Human Evolution and Adaptation (3). Ideas used in reconstructing human evolution and analyzing contemporary human variation. The course includes paleoanthropology and analogies from animal behavior, but emphasizes human biological and biocultural adaptation to diverse environments. Leslie, Winterhalder. General College natural science perspective (no lab).

44 Human Dilemmas (3). Contemporary dilemmas examined from a cross-cultural view, including racism, environment, population, war, gender restrictions, and hunger and affluence. Lutz. General College social science perspective, cultural diversity perspective.

46 The Evolution of Moral Consciousness: A Course in General Anthropology (3). An introductory course in general anthropology focusing on the development of moral consciousness. Western and non-Western patterns of thought and culture are compared and contrasted. The course has a strongly philosophical orientation. Evers. General College philosophical perspective.

47 Comparative Healing Systems (3). Explores the relationship between health, ecology, and culture, and studies the many ways of healing, using examples from several different cultures. Finkler. General College non-Western/comparative perspective.


49 Introduction to Cultural Anthropology (3). An introduction to non-Western cultures studied by anthropologists. Focuses on the cultural and social systems of three different cultures. Intertwined is a critical questioning of the notion of culture. Holland. General College social science perspective, cultural diversity perspective.

50 Anthropology of Globalization (3). Explores different approaches to globalization and studies inequalities in power between nation-states, racial and ethnic groups, classes, and locales undergoing it. Uses ethnographic materials to examine how gender, family, and work are affected by transnational migrations. Nonini. General College non-Western/comparative perspective, cultural diversity.

51 Anthropological Perspectives on Food and Culture (3). Anthropological perspective on foodways. Examines the biological basis of dietary patterns as well as the cultural contexts of food production, preparation, presentation, and consumption. Scarry. General College social science perspective.

55 Introduction to the Civilization of India, Pakistan, and Bangladesh (ASIA 55) (3). The course reviews urban and rural ways of life and the transformation of culture following British rule. Islam, Buddhism, caste, family life, and values are examined as well as several ways of life and problems besetting the countries as they pursue national goals. Staff. General College non-Western/comparative perspective; Arts and Sciences non-Western/comparative perspective.

58 Anthropology of Race Relations (3). Introduction to the anthropology of race and race relations. Focuses on anthropological critiques of racism, theories of racial formation; race relations in historic and comparative perspective; contemporary issues in race relations. Nonini, de la Cadena. General College cultural diversity perspective.
62 Population Anthropology (3). Interactions among culture, biology, environment, and human population dynamics, past and present. Includes changing influences on reproduction, migration, and mortality; social and biological consequences of population size, growth, and composition. Leslie. General College social science perspective.

80 War and Society (Peace, War, and Defense 80) (3). Cross-cultural perspectives on war in its relation to society, including Western and non-Western examples. Surveys political, economic, cultural, and feminist approaches to war and war preparation. Lutz. General College non-Western/comparative perspective, cultural diversity perspective; Arts and Sciences social science perspective, non-Western/comparative perspective.

82 Anthropological Perspectives on Cultural Diversity (3). Introduction to new theories of cultural difference that include power, discourse, and identity (e.g., race, ethnicity, gender) emphasizing ethnographic and other anthropological approaches. Encourages students to examine how ideas of difference shape how we act, think, and imagine as members of diverse cultures. General College cultural diversity perspective; Arts and Sciences social science perspective.

84 Language and Power (LING 72, WMST 71) (3). See Linguistics 72.

85 Practices in Cultural Studies (3). "Cultural Studies" focuses on the production, reception, interpretation, and understanding of culture. This course introduces some of the key conflicts in the field and involves student projects. Spring. Lutz, Holland, Farquhar, Nonini.

90 African American Religious Experience (Religion 90, African-American Studies 90) (3). Prerequisite, students must have taken at least one course in AFAM, ANTH, or Religious Studies. Introduction to the diversity of African American beliefs, experiences, and expressions from the colonial era to the present. Exploration will be historical and thematic. Hinson, Matly-Kipp. General College cultural diversity perspective.

93 Internship in Anthropology (Var.). Prerequisite, permission of instructor and director of undergraduate studies. Internship with anthropological component in an outside organization. Staff.

95 Honors Project (3). Open only to honors candidates. Permission of instructor is required. Data collection, analysis, and interpretation for independent research project, and work on preliminary draft, for the honors thesis. Staff.

96 Honors Thesis (3). Open only to senior honors candidates. Instructor's permission required. Writing of honors thesis based on independent research, under the direction of a faculty member of the department. Staff.

97 Directions in Anthropology (3). Open only to and required of anthropology majors in the junior year. Directions in the discipline and profession of anthropology as reflected in research issues and in academic and nonacademic roles for anthropologists. Staff.

98 Senior Seminar in Anthropology (3). Intensive investigation of a selected topic of broad interest for anthropology students across the subdisciplines of anthropology and to the instructor, such as race and ethnicity, gender, science, or anthropology in the public interest. Staff.

99 Special Study Projects (Var.). Prerequisite, permission of instructor. Reading or study under the guidance of a faculty member whose interests coincide with those of the individual student. Staff.

99F Fieldwork Projects (Var.). Prerequisite, permission of instructor. Fieldwork research under the guidance of a faculty member whose interests coincide with those of the individual student. Staff.

100 World Prehistory (3). A course designed to provide anthropology majors and other students of comparable social science or humanities backgrounds with an understanding of the global-scale archaeology of the human species. Crumley, Scarry. BA-level non-Western comparative perspective, cultural diversity perspective.

105 Anthropology of the South (3). Anthropological materials and insights bearing on modernization and other current trends in southern culture; research problems in the South. Peacock.

110 Principles of Archaeology (3). An examination of archaeology as a set of techniques and a subfield of anthropology, including history of archaeology, survey and excavation techniques, laboratories treatment of remains, archaeological analysis, historical and processual inference. Scarry.

112 Paleoanthropology (3). Detailed survey of evolution of humankind, beginning with the earliest known hominids through modern Homo sapiens. Consideration of fossil record and archaeological evidence. Human origins and ongoing nature of evolution. Fall and spring. Larsen. Arts and Sciences natural science perspective.

114 Human Osteology (4). Lectures and laboratory sessions will be devoted to an extensive examination of the human skeleton. Emphasis will be on analysis of skeletal material in the field and in the laboratory. Larsen.

115 Human Genetics and Evolution (3). Fundamental principles of genetics; population genetics; interaction of genetics, environment and culture in human behavior, society, and the evolution of human variation. Leslie. BA-level natural science perspective.

117 Evolutionary Perspectives on Human Adaptation and Behavior (3). Critical, partially historical discussion of evolutionary theories, including Darwinism, Neo-Darwinism, ethnology and sociobiology, and their social-scientific analogs. Relevance and limitations of these theories for anthropologists will be focal. Winterhalder. Arts and Sciences social science perspective.

120 Culture Change and Underdeveloped Areas (3). The cultural politics of nationalism, ethnic group and race relations, class conflict, globalization and social movements in less developed areas of Asia, Africa, and Latin America. Nonini. BA-level non-Western comparative perspective, cultural diversity perspective.

121 Culture and Personality (3). Systems theory is used to conceptualize the relationship between cultural patterns and individual minds. Functional, dysfunctional, and therapeutic processes are examined in examples from Africa, Asia, Europe, and Native America. Daniels. BA-level social science perspective, cultural diversity perspective.

123 Magic, Ritual, and Belief (3). An examination of the rationality of "magic and religious thought" in traditional societies. Some attention to scientific thought is included. Evans. General College cultural diversity perspective; Arts and Sciences philosophical perspective.

124 Law, Culture, and Society (3). Law and legal mechanisms in their cultural and social contexts. Historical and contemporary problems of "law and development" will be analyzed. Staff.

125 Emotions and Society (3). Survey of relationship between emotional experience and social life, especially including gender relations. Emotions as learned, culturally variable understandings and behaviors. Lutz. BA-level social science perspective.

127 Aboriginal Cultures of Mexico and Central America (Folklore 127) (3). The development of Indian cultures of Middle America; culminating in such civilizations as the Aztec and Maya; archaeological and ethnohistorical data synthesized. Staff.

129 Culture and Power in Southeast Asia (ASIA 129, Folklore 129) (3). The formation and transformation of worldviews, identities, and expressive forms in Southeast Asia over time, including the impact of global/national interests. Sources include translations of texts. Special focus on insular Southeast Asia. Peacock, Nonini, Wiener. BA-level non-Western comparative perspective.

130 Native North American Cultures (Folklore 130) (3). A broad survey of the traditional lifeways and customs of Native North Americans, with some emphasis on the impact made by historical contacts with Euro-Americans. Current issues affecting Native American groups are also addressed. Scarry. Arts and Sciences non-Western/comparative perspective.

131 Archaeology of South America (3). The development of native South American cultures according to archaeological and early ethnohistorical records. Staff.
132 Latin American Cultures (Folklore 132) (3). Explores four important aspects of Latin American life from historical and contemporary perspectives. These are economic and ethnic relations, gender, health, and religious beliefs and practices. Emphasizes comparison with United States. Finkler, de la Cadena. BA-level non-Western comparative perspective, cultural diversity perspective.

133 Peoples of the Caribbean (3). This course examines Caribbean culture in an historical and contemporary context. Particular attention given to the experiences and identities of Caribbean people in the context of slavery and emancipation, colonialism, domestic and export production, migration, tourism, and social movements. Staff. BA-level non-Western comparative perspective.


135 Consciousness and Symbols (Folklore 135, Comparative Literature 135) (3). Symbolizing as exemplified in the arts, religions, languages, and culture. Emphasis is on the relation of symbolizing to society and psychology, as analyzed by classical theorists such as Durkheim, Weber, Jung, and others more recent. Peacock. BA-level philosophical perspective.

138 Religion, Nature, and Environment (3.0). Concepts of nature within religions such as Buddhism, Islam, and the Judeo-Christian, as well as within the beliefs of a variety of cultures. Study of sacred space and pilgrimage. Fall. Johnson.

139 Environmental Anthropology (3). Analyzes processes through which human actors in a variety of geographic settings and social contexts define nature, the environment, and relationships with the material world, and use power to impose their definitions on others. Staff. BA-level social science perspective.

140 Gender and Culture (Women's Studies 140) (3). Cross-cultural perspectives on the social uses of gender distinctions. Focus on women's lives outside the U.S. and Europe. Comparison with students' social context. Lutz. General College cultural diversity perspective; Arts and Sciences social science perspective.

141 The Anthropology of Gender, Health, and Illness (3). This course will explore the social and cultural patterns and practices that differentially influence health and illness among women and men. Finkler. General College cultural diversity perspective; Arts and Sciences social science perspective.

142 Religion and Anthropology (Folklore 142, Religious Studies 142) (3). Religion studied anthropologically as a cultural, social, and psychological phenomenon in the works of classical and contemporary social thought. Tyson, Peacock. General College cultural diversity perspective; Arts and Sciences social science perspective.

143, 144 Field Training in Anthropology (3 each). Instructor's permission required. Supervised, on-site data collection and analysis. Students develop background knowledge and select research topic before leaving campus. Staff.

145 The Politics of Culture in East Asia (Asia 145) (3). See Asia 145 for description. Farquhar. General College cultural diversity perspective; Arts and Sciences non-Western/comparative perspective.

146 Introduction to Folklore (Folklore 146) (3). See Folklore 146 for description. Staff.

149 Anthropology and Marxism (3). Examination of major writings within the Marxist critical tradition which have illuminated central problems within anthropology as theoretical discourse and discipline, and introduction to recent important research in Marxist anthropology. Nonini. Arts and Sciences philosophical perspective.

150 Archaeology of North American Indians (3). The history of American Indian cultures from 10,000 B.C. to the time of the European invasion as reconstructed by archaeological research. Special emphasis on the eastern woodlands and the Southwest. Steponaitis. General College cultural diversity perspective; Arts and Sciences non-Western/comparative perspective.

151 Field School in Archaeology (6). Intensive training in archaeological field methods and techniques. Students participate in excavation, recovery, recording, and interpretation of archaeological remains; transit mapping, photography, flotation recovery, and other research procedures. Steponaitis.

152 Prehistoric Foodways (3). Archaeological investigations of prehistoric and historic foodways. Surveys the questions asked, the data and methods used to answer those questions, and the contributions of subsistence studies to archaeological knowledge. Scarry.

155 Ethnohistory (Folklore 155) (3). Integration of data from ethnographic and archaeological research with pertinent historic information. Familiarization with a wide range of sources for ethnographic data and practice in obtaining and evaluating information. Pertinent theoretical concepts will be explored. Crumley. General College cultural diversity perspective.

157 Ethnicity in Latin America (3). Through a comparative historical analysis ranging from the creation of modern Latin American nation-states to contemporary diasporas, this course focuses on the relationship between ethnicity and issues of gender, class, race, and "civilization." de la Cadena.

161 Field School in Contemporary African Culture (6). Prerequisite, permission of instructor. Intensive course taught in Kenya, combining classroom study of ethnography and history with field studies in Nairobi, Central, and Rift Valley Provinces. Home stays with Kenyan families. Daniels. General College cultural diversity perspective; Arts and Sciences social science perspective, non-Western/comparative perspective.

162 Anthropology of Space and Power (3). Investigation of the relationships between space, power, and cultural representations in modern urban life. Draws on a variety of sources to examine the cultural politics of built forms, architecture, and urban planning. Nonini. General College cultural diversity perspective.

163 Space as Property and the Properties of Space (ART 117) (3). Prerequisite, any intermediate-level art history course or permission of instructor. This course encourages students to consider the built environment in new and critical ways. To interrogate the relationships between the built environment and power, we explore representation of architecture, architectural discourse, the urban environment, gender, and social class. Fall, spring, Hills.

164 Foundations of Social Anthropology (3). Intensive study of theory in social anthropology, through use of standard ethnographic monographs on traditional societies, with emphasis on political dimension. Special attention given to the nature and problems of structural-functionalist explanation. Evens.

165 Economic Anthropology (3). A comparative exploration through ethnography and other anthropological sources of the cultural mysteries of commodities and the processes of commodification in everyday life in contemporary societies. Nonini. General College cultural diversity perspective; BA-level social science perspective, cultural diversity perspective.

167 Urban Anthropology (3). Study of the political economy and cultural politics of spaces and landscapes in contemporary Third World and American cities as they undergo globalization, economic restructuring, and the influx of migrants. Staff.

168 State Formation (3). The course examines the state, from its initial appearance 5,000 years ago to newly established nation-states, exploring the concepts of ethnicity, class, race, and history in state formation and maintenance. Crumley. BA-level non-Western/comparative, cultural diversity perspective.
169 History and Anthropology (3). Studies links between history and anthropology; cultures in historical perspective and history in cultural perspective; and effects of relations of power and historical interconnections on the peoples of the world. de la Cadena/Cadena, Wiener.

170 Medicine and Anthropology (Folklore 171) (3). An introduction to social and cultural aspects of illness and healing in a wide range of societies. Examines alternative healing systems in the U.S. Especially relevant to pre-medical students. Finkler, Farquhar. General College cultural diversity perspective; Arts and Sciences social science perspective.

171 Sociolinguistics (Linguistics 170) (3). See Linguistics 170.

173 Anthropology of the Body and the Subject (3). Prerequisite, Anthropology 170 or permission of instructor. Anthropological and historical studies of variation in cultural constructions of bodily experience and personal subjectivity are reviewed, with special emphasis on the analysis of the modern individual and cultural approaches to health and sexuality. Farquhar.

174 Chinese World Views (Religious Studies 174 (ASIA 174) (3). An approach to Chinese history, literature, science, and society through an exploration of a few pervasive cultural themes. Chinese sources in translation and Western anthropological and philosophical sources are used. Farquhar. Arts and Sciences philosophical perspective.

175 Ethnographic Method (3). Intensive study of and practice in many of the most commonly used anthropological research techniques. Staff.

177 European Societies (3). This course explores many cultural factors and diverse peoples — non-Greek-Roman as well as Greek-Roman — that have formed the European identity from the earliest human occupation of Europe to present. Crumley. General College cultural diversity perspective; Arts and Sciences Western historical perspective.

178 Chinese Diaspora in the Asia Pacific (ASIA 178) (3). Examination of the histories, social organizations, and cultures of the Chinese diaspora in the Asia Pacific region, focusing on contemporary issues in the cultural politics and identities of "overseas Chinese." Nonini. Arts and Sciences non-Western/comparative perspective.

182 Contemporary Chinese Society (ASIA 182) (3). This course draws on recent sociological and anthropological research in the Peoples Republic of China, autobiography, film, and fiction, to explore contemporary Chinese society and culture. Farquhar. Arts and Sciences non-Western/comparative perspective.

185 Anthropology of Science (3). Cultural perspectives on science and technology in Western society, including research settings and social applications of science; relations between scientific worldview and power in social institutions and the popular imagination. Staff. BA-level social science perspective.

186 Schooling and Diversity: Anthropological Perspectives. (3). Anthropological perspectives on issues of schooling and cultural diversity, including their relationship to gender, race, and class. Critical review of theory and method in the study of the (re)production of these divisions. Holland. General College cultural diversity perspective; Arts and Sciences social science perspective.

188 Observation and Interpretation of Religious Action (3) (Religious Studies 288, Folklore 288) Prerequisite, permission of instructor. Exercises (including field work) in learning to read the primary modes of public action in religious traditions: sermons, testimonies, rituals, prayers, etc. Primary focus on construction and interpretation of texts from field observation. Peacock.

192 Pidgins and Creoles (Germanics 172, Linguistics 172) (3). Examination of the linguistic features of pidgin and creole languages, the socio-historical context of their development, and their import for current theoretical issues (acquisition, universals, language change). Staff.

195 The Interpretation of Dwellings (3).0. Theories of and methods for the study of building and landscape architecture. Field studies of residential and religious architecture and landscape. Fall. Johnson.

196 The Gardens, Shrines, and Temples of Japan (ART 192) (ASIA 196) (3). The religious landscape and built environments of Japan. Attention to palace, courtyard, and teahouse architecture and gardens, with emphasis on Shinto shrines and the Zen Buddhist temple and garden. Johnson. Arts and Sciences aesthetic perspective.

199 Special Topics (4). Examines selected topics from an anthropological perspective. Course description is available in the departmental office. Staff.

Curriculum in Applied and Materials Sciences

ROYCE W. MURRAY, Chair
John J. Boland, Associate Chair
Laurie E. McNeil, Associate Chair

Professors

Research Associate Professors
John J. Boland, Nalin Parikh, Michael Rubinstein, Yue Wu.

Research Assistant Professors
Jianping Lu, Richard Superfine, Frank Tsui, Otto Zhou.

This curriculum is designed to prepare students for an active role in the exciting world of modern science and technology. It is directed toward students seeking a career in the sciences but having applied interests.

Two tracks of concentration are available: Computer Science and Materials Science. Options are available within the Materials Science track that enable the student to emphasize interests in biomaterials, electronic and optical materials, or polymeric materials. Each track leads to the degree of Bachelor of Science in Applied Science and prepares the student for entry-level industrial positions, for choices of graduate study from several fields of science or technology, or medical school. The Computer Science track is oriented toward the design and operation of hardware and software components for digital systems, in contrast with the Computer Science track of the Curriculum in Mathematical Sciences, which is directed toward the mathematical aspects of computer science. The first years of study are approximately parallel to the first years of study leading to the BS degree in Chemistry or Physics or the Mathematical Sciences. Interchange of those majors is common during the General College period. The curriculum studies, like all sciences, are vertically structured with experience and knowledge from each course serving as a foundation for subsequent courses. Students' attention to prerequisites is important. The specific requirements are listed below. Students in the curriculum are encouraged to participate in undergraduate research.
Common Requirements
Chemistry 11, 11L (desirably by recognition of high school chemistry), 21, 21L
Mathematics 31, 32, 33, 83*, 128, 129
Physics 26, 27*, 61
English 11, 12
Foreign Language (through level 3 if new foreign language - level 4 if High School foreign language is continued)
General College Perspectives (7 courses spread throughout the undergraduate years)
Applied Sciences Seminar 98
Elective courses (9 hours)1,2
Two Physical Activity courses
*completed by the end of the sophomore year.

Additional Requirements

Computer Science Track
Applied Sciences 101, 102, 103, 104, 105
Computer Science 14 or 15, 114, 120, 121
Mathematics 81, 146
Physics 101, 102

Materials Science Track
All Emphases
Applied Sciences 50, 130, 141
Chemistry 41, 41L, 61
Physics 28, 28L

Biomaterials Emphasis
Applied Sciences 143, 144L, 161, 162L
Biology 11, 11L, (desirably by recognition of high school biology) 45*, 50, 52
Chemistry 130
Physics 101, 102, 160 or Chemistry 182

Electronic and Optical Materials Emphasis
Applied Sciences 142, 143, 144L, 145L
Physics 101, 102, 107 or 58, 105 or Chemistry 184, 140, 160, 169

Polymeric Materials Emphasis
Applied Sciences 121, 122, 124L
Chemistry 51, 62, 62L, 141, 141L, 170L, 182, 182L

Course Descriptions

50 Introduction to Materials Science (3). Prerequisites, Chemistry 21, co- or Prerequisite Physics 27, Math 83, Chemistry 61. The materials science of electronic, metallic, polymeric, ceramic and composite materials and their processing are introduced. The electronic, optical, magnetic and structural properties of materials are related to their uses. Spring, Staff.

97 Independent Study in Applied Sciences (Var). Prerequisite, permission of the instructor and the Chair of the Curriculum. Independent study under a member of the Applied Sciences faculty. Fall, spring, summer.

98 Seminar (0). Current topics in Applied Sciences presented by invited lecturers. Taken once for credit preferably in the junior year. Participation in all semesters is encouraged. Fall and spring, Staff.

99 Research in Applied Sciences for Undergraduates (3). Prerequisites, permission of the instructor and the Chair of the Curriculum. At least nine hours of independent work a week. May be taken repeatedly for elective credit. Work done in Applied Sciences 99 may be counted towards graduation with Honors or Highest Honors by petition to the Chair of the Curriculum. Further details on Applied Sciences 99 and the Honors program are available from the curriculum office, 18-1A Venable Hall.

101 Systems and Signals (BMME 106) (3). Prerequisite, Physics 101 and permission of instructor. Analysis of linear systems by transform methods to networks, including stability and analysis. Survey of numerical methods for network solutions. Three lecture hours a week. Spring, Biomedical Engineering faculty.

102 Information, Modulation, Transmission, and Noise (BMME 107) (3). Prerequisite, Physics 101 and permission of instructor. Physics and network models of active devices. Active filter design and applications to communication systems including information theory. Three lecture hours a week and three laboratory hours a week. Spring, Biomedical Engineering faculty.

103 Digital Signal Processing I (BMME 121) (3). Prerequisite, Computer Science 14 or equivalent. This is an introduction to methods of automatic computation of specific relevance to biomedical problems. Sampling theory, analog-to-digital conversion, digital filtering, will be explored in depth. Spring, Biomedical Engineering faculty.


105 Linear Control Theory (BMME 132) (3). Prerequisite, Math 128 or equivalent. Linear control system analysis and design are presented. Frequency and time domain characteristics and stability are studied. Fall. Biomedical Engineering faculty.


122 Physical Chemistry of Polymers (Chemistry 122) (3). Prerequisite, Applied Sciences 130 or Chemistry 181; prerequisite or corequisite, Chemistry 182. Kinetics of polymerization, molecular weight distribution and molecular weight measurements, solution properties, solid state properties of macromolecules. Spring. Chemistry faculty.

123 Intermediate Polymer Chemistry (Chemistry 123) (3). Prerequisite, Applied Sciences 122. Rheology and mechanical properties of polymers; plastics, fiber, and elastomer technology. Spring. Chemistry faculty.

124L Polymer Chemistry Laboratory (Chemistry 124L) (2). Prerequisites, Applied Sciences 121, 122. Thermal analysis; solution viscosity; gel permeation chromatography; end group analysis; synthesis; characterization of an unknown polymer. One four-hour laboratory and one-hour lecture each week. Spring. Chemistry faculty. (Fee required)
Department of Art

MARY C. STURGEON, Chair

Professors
Jaroslav T. Folda, S. Elizabeth Grabowski,
Richard W. Kinnaird, Arthur S. Marks, Jerry L. Noe,
Mary D. Sheriff, Mary C. Sturgeon, Dennis J. Zaborowski.

Associate Professors
James Gadson, Jim Hirschfield, Carol Mavor, Mary Pardo.

Assistant Professors
Tammy Rae Carland, Michael D. Harris, Yun-Dong Nam,
elin o'Hara slavick, Dorothy Verkerk.

Adjunct Professors
Sherman Lee, Timothy Riggs.

Adjunct Associate Professor
Gerald Bolas.

Adjunct Assistant Professors
Barbara Matilsky, Carolyn Wood.

Adjunct Instructor
Evelyn Koehnline.

Professors Emeriti
Robert Barnard, Robert Howard, Frances Huemer,
Sara Immerwahr, Kenneth Ness, Marvin Saltzman,
Joseph Sloane.

The Department of Art offers three undergraduate majors: the B.A. in art history, the B.A. in studio art, and
the B.F.A. in studio art.

The department possesses outstanding facilities for the teaching of both art history and studio art in the Hanes Art
Center, which houses painting, drawing, printmaking,
design, and photography studios as well as art history class-
rooms. The John and June Alicott Galleries and the Alumni
Sculpture Garden are also located here. Sculpture and
ceramic sculpture are taught in the Art Lab building one
mile north of campus.

The Sloane Art Library has a collection of more than
80,000 volumes. The departmental slides and photographs
collection is extensive. The adjacent Ackland Museum
houses a growing and permanent collection of paintings,
prints, photographs, and sculpture. Our location affords
easy access to several regional art venues including the
North Carolina Museum of Art and the City Gallery of
Contemporary Art in Raleigh, and the Green Hill Center in
Greensboro, and the Southeastern Center for Contemporary
Art in Winston-Salem. Other regional institutions of higher
education in the area such as the Duke University Museum
of Art and the Weatherspoon Museum at UNC-Greensboro
support active exhibition schedules and study collections.
The rich museum and gallery scene in Washington, D.C. is
within a four-hour drive.

The department welcomes undergraduates to take its
beginning courses as electives. Foundation courses in Studio
Art (Art 01, 02, and 03) and introductory courses in Art
History (20-44) do not assume previous work in high school.
Some students with sufficient high school experience may be
eligible for placement in beginning-level studio classes (Art
15, 16, 17). Students seeking advanced placement in these
studio classes or art history should see the appropriate
department advisor.

Program in Art History

The purpose of the undergraduate program in art history
is directed towards particular educational ends and means:
1) to acquaint undergraduate students pursuing a liberal arts
degree with the historical significance, cultural diversity,
and intellectual richness of human artistic traditions from
prehistoric times to the present; and 2) to provide such stu-
The Minor in Art History

The student who plans to minor in art history should consult with the undergraduate advisor. The minor consists of five courses in art history for a total of 15.0 credit hours. Two or three courses should be selected from the beginning level (30-44) and the remainder from the intermediate or advanced level (50-198).

Restrictions: Cross-listed courses under the aegis of another department and studio courses cannot be included in the minor.

Honors in Art History

The Honors Program is open to students with a 3.2 GPA who have demonstrated overall excellence in the discipline. Honors are generally pursued in the senior year. Students enroll in the Honors course (Art 90, fall; Art 91, spring) in the Honors Office located in Steele Building. This should be done after consultation with the faculty honors adviser and the department honors adviser. For more information see the University Honors booklet and the departmental honors announcement.

Independent Study

With permission of the departmental faculty member who will supervise the project, a student may register for Art 98 (Directed Readings in Art History) for three semester hours. This may be repeated for credit.

Transfer Students

The University accepts six semester hours in art from students transferring from other institutions. Transfer students must meet with the department advisor to receive additional credits. The student may transfer in not more than half of the courses for the art history major. The transfer student, however, should note that to obtain a B.A. in art history one must complete a minimum of eighteen semester hours of art history in residence at The University of North Carolina at Chapel Hill or a Study Abroad program sponsored by UNC-Chapel Hill.

Courses Overseas

Students may be credited with a maximum of two courses taken abroad from non-UNC programs, provided that these courses are approved by the department.

Graduation Requirements

For the B.A. degree in art history the student must have a "C" average (2.0) on all work taken in the University and eighteen semester hours of work with the grade of "C" or better in art history. All students should consult with their adviser in the Art Department, and from the advisor in Steele Building. Only Steele Building advisers will determine whether a student has met the overall requirements for graduation.
Internships

Students are encouraged to pursue internships at local, regional, or national arts institutions. Information is available about internship opportunities in the department office. In order to receive academic credit for an internship the student must arrange in advance a directed study course (Art 98) with a faculty member in the department which has been approved by the department adviser.

The Department of Art accepts transfer credit of six to eight credit hours in art history and six credit hours in studio. Credit beyond this may be awarded by petition to the appropriate departmental adviser. Petitions for studio credit must be accompanied by examples of work either in portfolio or slide. One half of the total credits plus one course must be taken at UNC-Chapel Hill.

Art History Courses

When looking at the course listings below, please keep the following levels in mind:

- Art history beginning-level courses numbered 20-44: no prerequisites.
- Art history intermediate-level courses numbered 50-89: prerequisite of at least one introductory art history course or permission of instructor.
- Art history advanced-level courses numbered 90-199: prerequisite of one intermediate-level art history course or permission of instructor.

Introductory Courses and Courses of General Interest

21 Freshman Seminar (3).

30 Introduction to Architecture (3.0). What is architecture? What does it do? This course is designed to encourage students to consider architecture less as something technical, existing in a separate sphere from everyday life, but as social space. Spring. Hills.

30H Honors in the History of Architecture (3). Admission by permission of the honors dean.

31 History of Western Art I (3). Art 31 is the first semester of a two-semester survey that is designed to acquaint the beginning student with the historical development of art and with the offerings and instructors of the art history faculty. Art 31 covers Ancient, Medieval, and early Renaissance periods. Fall. Verkerk.

31H Honors Section of Art 31 (3). Admission by permission of honors dean.

32 History of Western Art II (3). Art 32 is the second semester of a two-semester survey course including Western art from the Renaissance to Modern art. Art 31 is not a prerequisite for Art 32, but all art history majors are required to take both courses. Spring. Sherill.

32H Honors Section of Art 32 (4). Admission by permission of honors dean.

33 Ancient Survey (CLAR 33) (3). This course covers the history of ancient art as seen in historical context, discusses the Age of the Pyramids in Egypt, the tombs of the pharaohs in Thebes, the great palaces of the Mesoopotamians and the Mycenaeans, the frescoes of the Minoans and the Etruscans, the development of classical art in Greece, and finishes with the arts of the Roman Empire.

34 Survey of Northern European Art (3). This is a survey of major Dutch and Flemish artists from the beginning of the fifteenth century to the last quarter of the seventeenth century. It will include such artists as Jan van Eyck, Pieter Bruegel, and Rembrandt.

35 Medieval Survey (3). Study of architecture, sculpture, and painting in early Christian, Byzantine, Pre-Romanesque, Romanesque, and Gothic Europe.

36 Renaissance Survey (3). This course surveys major developments in Italian art from about 1250 to about 1520, studying selected examples of painting, sculpture, and architecture to define the cultural role of art in this period.

37 Baroque Survey (3). Study of major figures of European art of the seventeenth century.

38 Modern Survey (3). An introduction to the visual arts of the modern period, from the mid-eighteenth century to the present. Impressionists, symbolists, cubists are just a few of the schools of art studied.

39 The City as Monument (3). A city or cities will be considered as cultural artifact(s), with emphasis given to plans and planning, architecture, public monuments, and to various institutions, such as religion, government, the arts, and commerce, that initiate or affect these urban developments and forms. Marks, Pardo, Folsa. GC/BA-level fine arts/aesthetic perspective.

40 African American Art Survey (AFAM 45) (3). An introduction to African American art and artists, their social contexts from early slavery through the twentieth century. Fall, spring, summer. Harris.

41 Minoans and Mycenaeans: The Archaeology of Bronze Age Greece (CLAR 41) (3). The course is a survey of the material culture of Greece, the Cyclades, and the eastern Mediterranean from the Paleolithic period (ca. 50,000 years ago) until the end of the Bronze Age (ca. 1200 B.C.). The primary focus will be the urbanized palatial centers that emerged in mainland Greece (Mycenaean) and the island of Crete (Minoan) in the second millennium B.C. Spring. Haggis.

43 American Art (3). From Colonial times to the present.

44 Modern Design (3). A survey of twentieth-century design, with emphasis on the special qualities found in America. Topics include the history of clothes fashion, industrial design such as cars, graphic arts, and architecture. The social background of design changes will be discussed, also city planning.

61 African Art (3). The class will examine topics and objects from West and Central African societies. Social, cultural, and historical conditions will be the foundation on which objects will be examined. Fall, spring. Harris. Arts and Sciences aesthetic perspective and the cultural diversity requirement.

64 Women in the Visual Arts I (Women’s Studies 64) (3). This course analyzes the representation of women in Western Art, placing special emphasis on works by women.

73 Twentieth Century African American Art (AFAM 77) (3). This course will focus upon the expression of African Americans in the United States in the twentieth century with some discussion of Caribbean and South American arts. Arts and Sciences aesthetic perspective and the cultural diversity requirement.

80 Topics in Art History (3). Selected studies that vary as offered.

81 African Impulse in African American Art (AFAM 81) (3). This class will examine the presence and influences of African culture in the art and material culture of Africans in the Americas from the colonial period to the present. Fall, spring. Harris. Arts and Sciences aesthetic perspective and the cultural diversity requirement.

90 Honors in Art (3). Permission of instructor. Fall.

91 Honors in Art (3). Permission of instructor. Spring.

98 Directed Readings in Art History (3). Permission of instructor.
117 Space as Property and the Properties of Space (ANTH 163) (3.0). Prerequisite, any intermediate-level art history course or permission of instructor. This course encourages students to consider the built environment in new and critical ways. To interrogate the relationships between the built environment and power, we explore representation of architecture, architectural discourse, the urban environment, gender, and social class. Fall, spring, Hills.

118 Topics in African Art (AFR 118) (3). Prerequisite, one course in related area. An upper-level seminar designed to investigate selected topics in narrowly defined areas of African art. Fall, spring, Harris.

124 Far Eastern Art (ASIA 124) (3). Prerequisite, any intermediate-level art history course or permission of instructor. Selected topics in the history of Far Eastern art including the architecture, sculpture, painting, and minor arts of China and Japan.

151 Women in the Visual Arts II (Women's Studies 151) (3). Prerequisite, one of the following: Women in Visual Arts I, Art 32, or permission of instructor. Discussion of topics related to the representation of women in Western Art and/or women as producers of art. Sheriff.


178 Topics in African American Art (AFAM 178) (3). Prerequisite, an upper-level seminar for the investigation of narrowly defined areas of African American art. Fall, spring, Harris.

182 Mosaics: The Art of Mosaic in Greece, Rome, and Byzantium (CLAR 182) (3). Prerequisite, any course in classics, art history, or religious studies. Traces the development of mosaic technique from Greek antiquity through the Byzantine Middle Ages as revealed by archaeological investigations and closely analyzes how this dynamic medium conveyed meaning. Spring, Connor. B.A.-level aesthetic perspective.

185 The Literature of Art (3). A study of the principal critics and historians who have contributed to the development of modern art history. Also application of the principles to specific works of art.

186 Topics in the History of Art. (3). Prerequisite, any intermediate-level art history course or permission of instructor. Special topics course for particular needs not covered by the regular topics courses Art 110-119.

187 Studies in the History of Graphic Art (3). Prerequisite, any intermediate-level art history course or permission of instructor.


110 Topics in the History of Ancient Art (3). Prerequisite, any intermediate-level art history course or permission of instructor. Selected topics in the history of ancient Greek and/or Roman art and architecture.

148 (CLAR 148) Art in the Age of Justinian and Theodora (3). Prerequisite, any course in history, art history, classics, or permission of instructor. Interdisciplinary course based on monuments, history, and contemporary writings of Byzantine empire during the rule of Justinian I (527 - 565) and the empress Theodora (527 - 548). Approach will be comparative, analytical, and contextual, and will include a feminist perspective. Fall.

189 (CLAR 189) Studies in Near Eastern Archaeology (3).

190 (CLAR 190) Greek Architecture (3).

191 (CLAR 191) Architecture of Etruria and Rome (3).

193 (CLAR 193) Greek Painting (3). A survey of the development from geometric to Hellenistic painting through a study of Greek vases, mosaics, and mural paintings.

194 (CLAR 194) Archaic Greek Sculpture (3).

195 (CLAR 195) Classical Greek Sculpture (3).

196 (CLAR 196) Hellenistic Greek Sculpture (3).

198 (CLAR 198) Aegean Civilization and Near Eastern Backgrounds.

Medieval

(see also Introductory Courses)

51 History of Early Christian and Byzantine Art (CLAR 51) (3). Prerequisite, any introductory-level art history course or permission of instructor. A survey of major developments in early Christian and Byzantine painting and sculpture.

52 Medieval Art in Western Europe (3). Prerequisite, any introductory art history course or permission of instructor. Survey of major developments in painting and sculpture in Europe during the Middle Ages (300 - 1400 AD).

53 Medieval Architecture (3). Prerequisite, any introductory art history course or permission of instructor. Survey of Western European architecture 300 - 1300 A.D.

54 Medieval Iconography (3). Prerequisite, any introductory art history course or permission of instructor. Understanding the meaning of medieval art by examining the iconography of selected important works.

55 Monuments of Medieval Art (3). The theory and aesthetics of medieval sculpture, painting, and architecture from 300 - 1300 A.D. in France, England, Italy, Spain, and Germany.

82 Crusader Art (3). Prerequisite, any introductory-level art history course or permission of instructor. This course surveys the main works of Crusader art in order to understand their nature and development from 1099 - 1291. The Crusader monuments are set in their historical context and in relation to Byzantine and Western European art.

111 Topics in the History of Early Medieval Art (3). Prerequisite, any intermediate-level art history course or permission of instructor. Selected topics in the history of early medieval art and architecture in Europe between the fourth and eleventh centuries.

112 Topics in Medieval Art 1000 - 1453 (3). Prerequisite, any intermediate-level art history course or permission of instructor. Selected topics in the history of medieval art and architecture in Europe between the eleventh and fifteenth centuries.

149A (CLAR 149A) Constantinople: The City and Its Art (3). Prerequisite, any course in history, art history, classics or permission of instructor. Interdisciplinary study of the city of Constantinople, capital of the Byzantine empire from 325 - 1453, with emphasis on the artistic, social, and cultural context. Includes study of monuments and their decoration, objects, contemporary documents and sources, all within a chronological, historical framework. Fall, spring, Connor.

Courses by Field of Interest

Ancient

(see also Introductory Courses)

20 (CLAR 20) Ancient Cities (3). See CLAR 20 for description.

42 Archaeology of Italy (CLAR 42) (3). See CLAR 42 for description.

49 (CLAR 49) Greek Archaeology (3). See CLAR 49 for description.

75 (RELI 75) The Archaeology of Cult: The Material Culture of Greek Religion (3). Examines the archaeological context of Greek religion, cults, and associated rituals from the Bronze Age until the Hellenistic period with emphasis on urban, rural, and panhellenic sanctuaries, and methods of approaching ancient religion and analyzing cult practices.

77 (CLAR 77) Art of Classical Greece (3). Prerequisite, any introductory-level art history course. A chronological study of the main development of Greek sculpture, architecture, and painting from the fifth to the first centuries B.C.

78 (CLAR 78) Roman Art (3). See CLAR 78 for description.
149B (CLAR 149B) In Constantinople (3). Prerequisite, 149A or permission of instructor. This course, taught primarily in Istanbul, once Constantinople, capital of the Byzantine empire 325 - 1453, provides first-hand experience with monuments and an overview of the history, topography, and culture of a great city in the history of civilization. Summer. Connor, Gates.

150 Romanesque Architecture (3). Prerequisite, any intermediate-level art history course or permission of instructor. An in-depth survey of medieval architecture from 1000 - 1140 A.D. in France, England, Italy, Spain, and Germany.

152 Gothic Architecture and Sculpture (3). Prerequisite, any intermediate-level art history course or permission of instructor. Origins of Gothic art in France and the stages of development through the middle of the thirteenth century. Emphasizes problems of methodology in the study of medieval art.

153 History of the Illuminated Book (3). Prerequisite, any intermediate-level art history course or permission of instructor. Chronological survey of major developments in book painting during the European Middle Ages from 300 - 1450 A.D.

154 Northern European Art of the Fourteenth and Fifteenth Centuries (3). Prerequisite, any intermediate-level art history course or permission of instructor.

Renaissance/Baroque

(see also Introductory Courses)

50 European Baroque Art (3). Prerequisite, any introductory-level art history course or permission of instructor. This course examines baroque art in Europe, with special reference to patterns of patronage.

56 Early Renaissance in Italy (3). Prerequisite, any introductory-level art history course or permission of instructor. The purpose of the course is to develop a solid acquaintance with representative aspects of Italian art from about 1250 - 1450. In alternate semesters the emphasis may change from central (Florence, Rome) to northern (Venice) Italy.

57 High Renaissance in Italy (3). Prerequisite, any introductory-level art history course or permission of instructor. The course is a survey of major Italian painting from about 1490 - 1575. From semester to semester the emphasis may alternate between central Italian and Venetian/north Italian works.

58 Italian Renaissance Architecture (3). Prerequisite, any introductory-level art history course or permission of instructor. A survey of key architectural developments in central (Florence, Rome) and northern (Veneto, Lombardy) Italy between 1400 and 1600.

59 Northern European Art: Van Eyck to Bruegel (3). Prerequisite, any introductory-level art history course or permission of instructor. This course will treat the art of the Netherlands (Holland and Belgium) in detail from Jan van Eyck to Pieter Bruegel.

60 Northern European Art: Bruegel to Rembrandt (3). Prerequisite, any introductory-level art history course or permission of instructor. This course will discuss in detail the art of the Netherlands (Holland and Belgium) from Bruegel to Rembrandt.

83 European Baroque Architecture (3). Prerequisite, any introductory-level art history course or permission of instructor. An investigation into the relationships between architecture and its sociopolitical context in the baroque period.

113 Topics in Renaissance Art (3). Prerequisite, any intermediate-level art history course or permission of instructor. Selected topics in the history of Renaissance art and architecture in Europe.

114 Topics in Baroque Art (3). Prerequisite, any intermediate-level art history course or permission of instructor. Selected topics in the history of baroque art in Europe.

160 Renaissance Art in Venice (3). Prerequisite, any intermediate-level art history course or permission of instructor. A special topics upper-level undergraduate course focusing on aspects of fifteenth- and sixteenth-century painting, sculpture, and architecture in Venice and its Dominions.

161 Baroque Architecture (3). Prerequisite, intermediate-level art history course or permission of instructor. An investigation into the relationships between art and its sociopolitical contexts in Europe during the seventeenth and eighteenth centuries.

162 174 Sixteenth-Century Italian Painting (3). Prerequisite, any intermediate-level art history course or permission of instructor. Deals with major schools: High Renaissance, Leonardo, Michelangelo, Raphael; mannerism in Rome and Florence; Venetian painting with emphasis on Titian and Giorgione.

163 Sixteenth-Century Venetian Painting (3). Prerequisite, any intermediate-level art history course or permission of instructor. This course focuses on the achievements of High Renaissance painting in Venice, particularly as embodied in the major works of Giorgione, Titian, Tintoretto, and Veronese.

164 The Art of Florence (3). Prerequisite, any intermediate-level art history course or permission of instructor. A study of Florentine art from its beginning in the sixteenth century with primary emphasis on its religious dimensions.

165 Sixteenth-Century Dutch and Flemish Art (3). Prerequisite, any intermediate-level art history course or permission of instructor. This is an advanced course concerned with the major art trends in the sixteenth century and their importance for the seventeenth century. Particular attention will be paid to the interaction between the Netherlands and Italy.

170 History of Seventeenth-Century Dutch and Flemish Art (3). Prerequisite, any intermediate-level art history course or permission of instructor. The major trends in painting, drawing, and graphics from Pieter Bruegel through Rembrandt.

171 Italian Baroque Painting (3). Prerequisite, any intermediate-level art history course or permission of instructor. An advanced course in seventeenth century painting in Rome. Emphasis will be given to the period 1590 - 1610, to the revolutionary innovations in light and in psychological interpretation in Caravaggio; to changing attitudes toward mythology in Annibale Carracci. The development toward high baroque ceiling decoration will also be traced.

172 Seventeenth-Century French and Flemish Art (3). Prerequisite, any intermediate-level art history course or permission of instructor.

Modern

(see also Introductory Courses)

43 American Art (3). From Colonial times to the present.

44 Modern Design (3). A survey of twentieth-century design, with emphasis on the special qualities found in America. Topics include the history of clothes fashion, industrial design such as cars, graphic arts, and architecture. The social background of design changes will be discussed, also city planning.

62 British Art (3). Prerequisite, any introductory-level art history course or permission of instructor. Survey of British painting from the time of Hogarth (ca. 1750) through the nineteenth century. Emphasis will be given to significant artists (Hogarth, Reynolds, Turner, Gainsborough, Constable); movements (neoclassicism, romanticism, Pre-Raphaelitism); and ideas (impact of science, industrialization).

70 Eighteenth-Century Art (3). Prerequisite, any introductory-level art history course or permission of instructor. An introductory survey of the architecture, sculpture, and painting with emphasis on European developments in the "fine" and "decorative" arts from the late seventeenth century to the time of the French Revolution.
71 Romanticism (3). Prerequisite, any introductory-level art history course or permission of instructor. This course will focus on the theory and definition of romanticism and will consider European art from 1800 - 1850.

72 Impressionism and Symbolism (3). Prerequisite, any introductory-level art history course or permission of instructor. A detailed study of selected paintings and associated critical texts, intended to develop an understanding of the issues of late nineteenth-century impressionism and symbolism.

74 Modern Architecture (3). Prerequisite, any introductory-level art history course or permission of instructor. Developments from 1800 to the present.

75 Twentieth-Century Art (3). Prerequisite, any introductory-level art history course or permission of instructor. Survey of painting from around 1885 to the present, introducing the major artists of the day and investigating the themes revealed through their art.

76 Post-1945 Art (3). Prerequisite, any introductory-level art history course or permission of instructor. An investigation of visual arts from the end of World War II to the present time, including abstract expressionism, pop art, minimal art, new realism, and postmodern theories.

115 Topics in Modern Art (3). Prerequisite, any intermediate-level art history course or permission of instructor. Selected topics in the history of European art and architecture of the eighteenth, nineteenth, and twentieth centuries.

116 (150) Topics in Modern Design (3). Prerequisite, any intermediate-level art history course or permission of instructor.

117 Topics in the History of Architecture (3). Prerequisite, any intermediate-level art history course or permission of instructor. Selected topics in the history of European and American architecture.

119 Topics in American Art (3). Prerequisite, any intermediate-level art history course or permission of instructor. Selected topics in the history of American art and architecture.

173 Eighteenth-Century French Painting (3). Prerequisite, any intermediate-level art history course or permission of instructor. Survey of the theory and practice of painting in France 1699 - 1800.

180 Theories of Modern Art (3). Prerequisite, any intermediate-level art history course or permission of instructor. A study of theoretical issues central to the understanding of modern art and criticism (e.g., modernism, the avant-garde, formalism, originality).

181 (175) Modern Art and Criticism (3). Prerequisite, any intermediate-level art history course or permission of instructor.

Museum Studies

183 Topics in Connoisseurship (3). Permission of instructor required.

Works in the Ackland Museum's collection will be studied directly, as a means of training the eye and exploring the technical and aesthetic issues raised by art objects.

184 Museum Studies (3). Designed to offer the essentials of museum work to students considering careers as curators and registrars. The course will use the Ackland Museum and its collection as a laboratory. Instruction will also be given in museum management, the duties of a registrar, and the packing and shipping of art works.

Program in Studio Art

The program in studio art at UNC-Chapel Hill focuses on fine arts. Students may choose from a range of studio course work designed to develop both skill acquisition and a personal creative vision. For the nonmajor, studies in studio arts goes beyond art appreciation. Whatever discipline students eventually choose to pursue, whether the arts, humanities or sciences, medicine or law, success will depend on two abilities: the ability to find creative solutions to problems and the ability to express individuality. Arts, by its very nature, gives these skills to those who study the discipline. We have the opportunity to provide all students, regardless of major, the keys to success. We develop two critical skills: the means of self-expression and techniques for creative thinking. Our added responsibility to the studio art major is to develop a sense of professional standards and future career potential. While the undergraduate program focuses on the fine arts, the course of study nonetheless offers a sound foundation for students to move into the art education, applied arts and other art-related careers as well as preparing for further study or careers in the fine arts.

Students choosing a studio art major move through a series of courses that begin with an emphasis on skills acquisition. Conventional issues of craftmanship, technique, and skill acquisition are taught as part of a larger concept of art making. Believing the technique serves the visual idea, we stress image-making and conception. At the same time, we expect students to become technically competent, conceptually independent, critically aware, and dedicated to their passion of art-making.

This philosophy encompasses our contextualization in an institution of higher education. We embrace the notion that being an artist today requires an intellectual curiosity and broad base of knowledge that, in turn, informs studio work. The University of North Carolina at Chapel Hill provides limitless resources to the studio artists in our program.

The Department of Art offers two undergraduate degrees in studio art. The B.A. degree consists of 39-41 hours in the department. It is intended to expose the undergraduate student to a broad range of studio art ideas and practices. The B.F.A. is a pre-professional course of study consisting of sixty credit hours in the department. Because of the increased hours in the department required for the B.F.A. degree, upper-level perspective requirements in the College of Arts and Sciences are waived. Students considering the B.F.A. degree are advised to contact the undergraduate adviser for studio art during the freshman year and no later than the sophomore year.

Required Courses for Either the B.A. or B.F.A.

General College (Freshman and Sophomore Years)

Students intending to major in studio art should take six courses during the first two years at UNC-Chapel Hill, beginning with Foundation Course — Art 01 (Basic Drawing and Composition), Art 02 (Basic Three-dimensional Design/Introduction to Sculpture), and Art 03 (Basic Two-dimensional Design). Students then begin media studies by taking either Art 15 (Beginning Painting), Art 16 A (Sculpture), Art 16 B (Ceramic Sculpture), Art 17 A (Intaglio and Relief Printmaking), Art 17 B (Lithography), or 17 C (Serigraphy). Students also must take either Art 18 (Life Drawing) or Art 13 (Life Sculpture) and one art history course on the 20-44 level (Art 32 is recommended).

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Since Department of Art courses, especially foundation-level courses, are extremely popular, students often find it difficult to enroll for these courses. Students seriously considering a studio art major and experiencing such difficulty should see the undergraduate adviser for studio art. The department reserves a small number of spaces in these classes for studio art majors. Students may be asked to demonstrate commitment to studio art with some examples of artwork.

Upper-level Degree Requirements for the B.A. or B.F.A.

College of Arts and Sciences (Junior and Senior Years)

Once the General College requirements have been satisfied, students may elect to continue in the studio art program working toward the B.A. or the B.F.A. degrees. Upper-level required courses for both degrees consist of two art history courses, one of which must be on the 50-level or above and one of which must be in the area of nineteenth or twentieth century. All studio majors must take the Senior Seminar in the fall of the senior year. Studio majors participate in a group exhibition of graduating majors at the conclusion of the spring semester in the senior year.

Completing the B.A. degree

To complete the B.A. degree, students continue a media focus building on the course taken in the General College with one additional semester of painting, printmaking, photography, or sculpture. Studio art electives are generally taken at beginning levels for a total of thirty-nine to forty-one hours in the Department of Art.

Completing the B.F.A. degree

The B.F.A. degree is intended as a pre-professional degree. As such, students are expected to develop both technical competency and their individual creative voice through a focused exploration of both media and content issues. Students typically continue a media focus for an additional fourteen hours in painting, printmaking, photography, sculpture, or mixed media. An additional life class (Art 12, 18, or 48) and fifteen to seventeen hours of studio electives combine for a total of sixty credits in the Department of Art.

Credit Summary:

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<tr>
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<th>B.A.</th>
<th>B.F.A.</th>
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<tbody>
<tr>
<td>Foundation Courses (Art 01, 02, 03)</td>
<td>9</td>
<td>9</td>
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<tr>
<td>Life course(s) (Art 13, 18, 48)</td>
<td>3</td>
<td>6</td>
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<td>Media Concentration</td>
<td>6</td>
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<tr>
<td>Studio Electives  (Art 103)</td>
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<td>Senior Seminar (Art 103)</td>
<td>2</td>
<td>2</td>
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<tr>
<td>Art History Credits (3 courses)</td>
<td>9-11</td>
<td>9-11</td>
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<tr>
<td>Total Departmental Credits</td>
<td>39-41</td>
<td>60</td>
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Honors in Studio Art

The honors program in studio art is designed to provide senior majors an opportunity to pursue serious and substantial work that will qualify the student to graduate "with honors" or "with highest honors."

Studio art majors with a grade point average of 3.2 are eligible to apply. Students must also have a faculty sponsor for application.

Anyone considering honors study should meet with the department honors adviser for studio, preferably during the second semester of the junior year but no later than the first week of classes during the senior year. The adviser will clarify details of eligibility, application, and program requirements. Application forms will be available at this time.

Admission to the studio honors program is determined by nomination by a faculty sponsor and a review of work by a designated faculty committee. The student will submit a completed application, a written statement regarding the work, and a specified body of work for review by the honors committee. The work must demonstrate a mature capability to perform visual research. These reviews will be scheduled at the time of application to the program, usually in the second semester of the junior year, but no later than the first week of the senior year.

Once accepted as a studio art honors candidate, students enroll in the honors courses (Art 90 fall, Art 91 spring). Specific requirements for the honors project and a schedule of departmental and University deadlines will be issued at the time of acceptance to the studio honors program.

Studio Art Courses

All courses listed in this section are open as electives to juniors and seniors, and may be offered for credit in the College of Arts and Sciences. Art 01 and 02 fulfill the General College requirements for the Aesthetic Perspective in Fine Arts. Art 01, 02, 15, 16A, 16B, 17A, 17B, and 17C fulfill the Arts and Sciences requirements for the Aesthetic Perspective in Fine Arts. Students must have appropriate prerequisites for courses beyond Art 03. Studio faculty teaching assignments vary each semester, and current schedules are available in the Art Department office. Permission for independent study must be given by the faculty member the student wishes to study with, and a concise description of the project to be undertaken is required in writing.

Prerequisites of courses are listed beside the name. Most courses are taught every year, fall and spring, and during summer sessions. All studio courses meet for six studio hours a week. Studio Art courses call for a commitment of time. Courses vary in their demand, but students should expect to spend at least three (foundation-level) and up to eight or nine (upper-level courses) additional hours outside of class for each three-credit-hour course. Courses listed as variable (Var.) credit can be taken for two to six credit hours, with three being typical. Specific requirements for variable credit hour study is designated by the individual instructor. Students working under variable credit should expect to engage in a minimum of two hours of supervised work and an additional hour per credit outside of class work per week.
Transfer Students: The University accepts six semester hours in art from students transferring from other institutes. Transfer students must meet with the department adviser to receive additional credits. Petitions for studio credit must be accompanied by examples of work either in portfolio or slides.

Foundation Courses
01 Basic Drawing and Composition (3). Designed to develop aesthetic sensibility, analytical capacity, creative interpretation, and fundamental skills in two-dimensional media.

02 Three-Dimensional Design/Introduction to Sculpture (3). Designed to develop aesthetic sensibility, analytical capacity, and fundamental skills in three-dimensional media.

03 Two-Dimensional Design (3). The study of the anatomy of a visual message. Through manipulation and analysis of the formal elements of line, shape, value, texture, and color, students will explore psychological and intellectual consequences and strategies for controlling compositional structures.

Beginning-Level Studio Courses
10 Introduction to Art Making (3). Introduction to visual culture in practice and theory. Historical emphasis is on postmodern art and Dada/Surrealism. Participants write about art and make their own art objects.

11 Basic Photography (3). A beginning course in creative black and white photography. Technical information will serve the broader goal of understanding aesthetic and critical concerns of the photographic image and art in general. Fall, spring, summer. Staff.

13 Life Sculpture (3). Prerequisite, Art 02. Conceptual investigation of the figure and issues of the body through the combined use of various sculptural materials.

14 Drawing (3). Prerequisite, Art 01. Intermediate topics in drawing.

15 Painting I (3). Prerequisite, Art 01. Introduction to the techniques of two-dimensional thought and process through the application of various painting media.

16A Sculpture I (A) (3). Prerequisite, Art 02. Introduction to the techniques of three-dimensional thought and process through the application of the various sculpture media.

16B Sculpture I (B) (3). Prerequisite, Art 02. An investigation of clay as a sculptural medium, developing technical skills, aesthetic awareness, and historical perspective.

17A Printmaking I (A) (3). Prerequisite, Art 01. Introduction to the thought and process of intaglio and relief, their applications and procedures.

17B Printmaking I (B) (3). Prerequisite, Art 01. Introduction to the thought and process of lithography, its application and procedure.

17C Printmaking I (C) (3). Prerequisite, Art 01. Introduction to the thought and process of screen printing, its application and procedure.

18 Life Drawing I (3). Prerequisite, Art 01. Development of proficiency in figure drawing through the use of various drawing and painting materials (study from the model).

Intermediate-Level Studio Courses
45 Painting II (Var.). Prerequisite, Art 15. Continuation of 15.

46A Sculpture II (Var.). Prerequisite, Art 16A. Continuation of 16A.

46B Sculpture II Ceramic (Var.). Prerequisite, Art 16B. Continuation of 16B.

47A Printmaking II Relief and Intaglio (Var.). Prerequisite, Art 17A. Continuation of 17A.

47B Printmaking II Lithography (Var.). Prerequisite, Art 17B. Continuation of 17B.

47C Printmaking II Screen Printing (Var.). Prerequisite, Art 17C. Continuation of 17C.

48 Life Drawing II (3). Prerequisite, Art 18. Continuation of 18.

63 Mixed Media Seminar (3). Prerequisite, Art 01, 02, or permission of instructor. Work produced in this class crosses media boundaries. We'll consider the codedness of media and stylistic approaches and how these mediate specific content ideas as determined from specific readings. Fall. Slavick.

65 Painting III (Var.). Prerequisite, Art 45. Continuation of 45.

66A Sculpture III (Var.). Prerequisite, Art 46A. Continuation of 46A.

66B Sculpture III Ceramic (Var.). Prerequisite, Art 46B. Continuation of 46B.

67A Printmaking III Relief and Intaglio (Var.). Prerequisite, Art 46A. Continuation of 47A.

67B Printmaking III Lithography (Var.). Prerequisite, Art 47B. Continuation of 47B.

67C Printmaking III Screen Printing (Var.). Prerequisite, Art 47C. Continuation of 47C.

68 Special Topics (Var.). Prerequisite. Beginning Course. Special topics courses are classes with a particular media or conceptual focus. Classes are taught by regular faculty and frequently artist-in-residence faculty. Topics may include: storytelling objects, neon sculpture, installation, body imaging.

69 Time, The Forgotten Element (3). Prerequisite, Art 02 and/or permission of instructor. Concept-driven studio course explores issues of time. Students consider scientific, philosophical, and personal definitions of time to inform projects using a variety of two-, three-, and multidimensional approaches. Fall. Hirschfield.

79 Intermediate Photography (3). Prerequisite, Art 11. Continuation of Art 11 with further instruction on fine-tuning technical and production skills as well as an introduction to alternative photographic processes. Fall. Carland.

85 Painting IV (Var.). Prerequisite. Beginning Course.

86A Sculpture IV (Var.). Prerequisite, Art 66A. Continuation of 66A.

86B Sculpture IV Ceramic (Var.). Prerequisite, Art 66B. Continuation of 66B.

87A Printmaking IV Relief and Intaglio (Var.). Prerequisite, Art 67A. Continuation of 67A.

87B Printmaking IV Lithography (Var.). Prerequisite, Art 67B. Continuation of 67B.

87C Printmaking IV Screen Printing (Var.). Prerequisite, Art 67C. Continuation of 67C.

88 Installation (3). Prerequisite, Art 01, Art 02, Art 16, or permission of instructor. This class explores art that encompasses its audience. Conceptual motivations as well as practical realities of dealing with a specific three-dimensional space will be considered. Spring. Hirschfield.

89 Body Imaging (3). Prerequisite, Art 01, Art 02, Art 18, or permission of instructor. Work is made through close examination and analysis of the human "body." Work may be made using any technical or theoretical approach. Required readings provide a conceptual grounding. Spring. Slavick.

Advanced-Level Studio Courses
100 Individual Studies in Painting (Var.). Permission of instructor.

101A Individual Studies in Sculpture (Var.). Permission of instructor.
101B Individual Studies in Ceramic Sculpture (Var.). Permission of instructor.

102A Individual Studies in Relief and Intaglio (Var.). Permission of instructor.

102B Individual Studies in Lithography (Var.). Permission of instructor.

102C Individual Studies in Screen Printing (Var.) Permission of instructor.

103 Senior Seminar (2). Prerequisite, twenty hours studio art. The Senior Seminar introduces the studio major to practical aspects involved in a career in the visual arts. Fall.

104 Advanced Photography (3.0). Prerequisite, Art 11, Art 79. Continuation of Art 79. Emphasis is placed on long term independent and collaborative projects. Spring, Carroll.

105 Painting V (Var.). Prerequisite, Art 85. Continuation of 85.

106A Sculpture V (Var.). Prerequisite, Art 86A. Continuation of 86A.

106B Sculpture V Ceramic (Var.). Prerequisite, Art 86B. Continuation of 86B.

107A Printmaking V Relief and Intaglio (Var.). Prerequisite, Art 87A. Continuation of 87A.

107B Printmaking V Lithography (Var.). Prerequisite, Art 87B. Continuation of 87B.

107C Printmaking V Screen Printing (Var.). Prerequisite, Art 87C. Continuation of 87C.

108 Public Art (3). Prerequisite, Art 1, 2, intermediate sculpture or permission of instructor. This class explores public art from historical and critical perspectives. Students will create Public Art proposals. Opportunities to implement projects will be explored through the Art Department and other resources. Spring, Hirschi.

125 Painting VI (Var.). Prerequisite, Art 105. Continuation of 105.

126A Sculpture VI (Var.). Prerequisite, Art 106A. Continuation of 106A.

126B Sculpture VI Ceramic (Var.). Prerequisite, Art 106B. Continuation of 106B.

127A Printmaking VI Relief and Intaglio (Var.). Prerequisite, Art 107A. Continuation of Art 107A.

127B Printmaking VI Lithography (Var.). Prerequisite, Art 107B. Continuation of 107B.

127C Printmaking VI Screen Printing (Var.). Prerequisite, Art 107C. Continuation of 107C.

128 Special Topics in Studio Art (Var.). Permission of the department.

155 Painting VII (Var.). Prerequisite, Art 125. Continuation of Art 125.

156A Sculpture VII (Var.). Prerequisite, Art 126A. Continuation of Art 126A.

156B Sculpture VII Ceramic (Var.). Prerequisite, Art 126B. Continuation of Art 126B.

157A Printmaking VII Relief and Intaglio (Var.). Prerequisite, Art 127A. Continuation of Art 127A.

157B Printmaking VII Lithography (Var.). Prerequisite, Art 127B. Continuation of Art 127B.

157C Printmaking VII Screen Printing (Var.). Prerequisite, Art 127C. Continuation of Art 127C.

175 Painting VIII (Var.). Prerequisite, Art 155. Continuation of Art 155.

176A Sculpture VIII (Var.). Prerequisite, Art 156A. Continuation of Art 156A.

176B Sculpture VIII Ceramic (Var.). Prerequisite, Art 156B. Continuation of Art 156B.

177A Printmaking VIII Relief and Intaglio (Var.). Prerequisite, Art 157A. Continuation of Art 157A.

177B Printmaking VIII Lithography (Var.). Prerequisite, Art 157B. Continuation of Art 157B.

177C Printmaking VIII Screen Printing (Var.). Prerequisite, Art 157C. Continuation of Art 157C.

**Curriculum in Asian Studies**

**LAWRENCE D. KESSLER, Chair and Undergraduate Adviser**

**Distinguished Professors**
William A. Fischer, James L. Peacock.

**Professors**
Carl Ernst, W. Miles Fletcher, Michael H. Hunt,
Norris Johnson, Lawrence D. Kessler, Melinda Meade,
H. Craig Melchert, Jerome P. Seaton, James W. White.

**Associate Professors**
Judith B. Farquhar, Gail E. Henderson, Donald M. Nonini,
Allan R. Life, James H. Sanford, Joanne Waghorne.

**Assistant Professors**
Janice B. Bardsley, Guang Guo, Ryuko Kubota, Afroz Taj,
Thomas A. Tweed, Margaret Wiener, Gang Yue,
Xinshu Zhao.

**Lecturers**
Yuki Aratake, Eric Henry, Yuko Kato.

**Adjunct Professor**
Sherman Lee.

**Distinguished Visiting Professor**
Sidney Rittenberg.

**East Asian Bibliographer**
Edward Martinique.

**Professor Emeritus**
J. Douglas Eyre.

The interdisciplinary Asian Studies curriculum offers an intellectual challenge as well as sound training that forms a useful and necessary foundation for students who intend to go on to graduate school in the social sciences or humanities and focus their research on Asia. It provides an essential background for students who are contemplating professions (such as business, law, or journalism) with the intent of doing extensive work in Asia. The curriculum is distinguished from other programs that focus on international studies in that it combines extensive language training with broad cultural studies that include art, history, literature, and religion as well as the social sciences.
Bachelor of Arts With a Major in Asian Studies

General College:
All requirements of the General College must be met.

College of Arts and Sciences:
All College of Arts and Sciences perspective requirements must be met. The major in Asian Studies consists of eight interdisciplinary courses and four language courses. Of the eight interdisciplinary courses, at least one must be chosen from each of the following three divisions:

2. Humanities: Art 124; Asia 82, 84; Chinese 50, 51, 115, 133, 134, 144, 145, 148; Hindi 115; Japanese 115, 133; Linguistics 162; Religious Studies 39, 64, 65, 66, 67, 69, 99 (when offered on Asia), 155, 160 (when offered on Asia), 161, 162, 163, 171, 172, 175, 179, 192.
3. Social Sciences: Anthropology 20, 50, 55, 120, 129, 174, 178, 182, 196; Asia 89, 145; Geography 166, 167; Political Science 54, 85, 95 (when offered on Asia), 123, 125.

With the approval of the director of Asian Studies a student may substitute a course in directed readings (ASIA 91) for one of the interdisciplinary courses. To register for ASIA 91, a student must obtain the approval of the director and faculty member who will supervise the project. More than one Asian country must be represented among the student’s interdisciplinary courses. Of the eight interdisciplinary courses, at least six must be passed with a grade of C (not C-) or better. No interdisciplinary course may be taken pass/fail.

Language Requirements:
Majors must take four courses in an Asian language. Students may use these courses to fulfill the General College language perspective requirement. Up to two language courses beyond level four may count as interdisciplinary courses.

Honors
A candidate for Honors in Asian Studies will write a substantial paper under the guidance of a faculty member in Asian Studies. While researching and writing the honors paper, the student will enroll in ASIA 97 and 98, which count as two of the interdisciplinary courses of the major.

The candidate will be examined by a committee composed of three faculty members, at least two of whom will be in the Asian Studies field. To be accepted as an honors candidate, a student must meet the College of Arts and Sciences requirement of a minimum overall grade point average of 3.2, secure the consent of an Asian Studies faculty member to act as adviser of the project, and submit a proposal to the director of Asian Studies for approval.

Study Abroad
UNC-Chapel Hill sponsors several study programs (both semester and year-long) in China, India, and Japan. Asian Studies majors are strongly encouraged to take advantage of these as well as other opportunities to live and study in an Asian setting.

Asian Studies Course Descriptions
33 Traditional East Asia (History 33) (3). See History 33 for description.
34 Modern East Asia (History 34) (3). See History 34 for description.
54 Government and Politics of East Asia (Political Science 54) (3). See Political Science 54 for description.
55 Introduction to the Civilization of India, Pakistan, and Bangladesh (ANTH 55) (3). See Anthropology 55 for description.
64 The Fundamentals of Hinduism: The Sacred Texts (Religion 64) (3). See Religion 64 for description.
69 Religion in Traditional Japan (Religion 69) (3). See Religion 69 for description.
82 Asian-American Literature (3). This course examines the Asian-American experience through the literature produced by members of this ethnic group. More broadly, it explores American multiculturalism in literature, theory, and criticism. Fall and spring. Yue.
85 Asia and World Affairs (Political Science 85) (3). See Political Science 85 for description.
86 Revolutionary Change in Contemporary China (History 86) (3). See History 86 for description.
87 Imperial Japan: From “Revolution” to World War (History 87) (3). See History 87 for description.
88 Japan since 1945: The Fragile Superpower (History 88) (3). See History 88 for description.
89 The Asian American Experience (3). The course will address the history and sociology of Asian immigration and experience in the United States, also addressing the formation of diasporic identities among Asian Americans. Spring, Yue, staff. BA-level social science perspective and cultural diversity requirement.
90 Topics in Asian Studies (3). The topic of this course will vary with the instructor. The class will be limited to a seminar size, and students must receive permission from the instructor to register. Fall or spring. Staff.
91 Independent Readings (3). For the student who wishes to create and pursue a project in Asian Studies under the supervision of a selected instructor. Permission required. Course is limited to three credit hours per semester. Fall or spring. Staff.
97 Senior Honors Essay (3). Required for honors students in Asian Studies. Fall. Staff.
123 Government and Politics in Japan (Political Science 123) (3). See Political Science 123 for description.

129 Culture and Power in Southeast Asia (Anthropology 129) (Folklore 129) (3). See Anthropology 129 for description.

145 The Politics of Culture in East Asia (Anthropology 145) (3). This course examines struggles to define culture and the nation in twentieth-century China and Japan, comparing these histories with the politics of culture in the United States. Spring. Farquhar. BA level non-western/comparative perspective and cultural diversity requirement.


155 Asian Religions in America (Religion 155) (3). See Religion 155 for description.

162 Taoism (Religion 162) (3). See Religion 162 for description.


166 Eastern Asia (Geography 166) (3). See Geography 166 for description.

167 Tropical Asia (Geography 167) (3). See Geography 167 for description.


171 Sufism (Religion 171) (3). See Religion 171 for description.

172 Islam in South Asia (Religion 172) (3). See Religion 172 for description.


175 Religion and Culture in Modern South Asia (Religion 175) (3). See Religion 175 for description.

178 Chinese Diaspora in the Asia Pacific (Anthropology 178) (3). See Anthropology 178 for description.

179 Readings in Islamicate Literatures (Religion 179) (3). See Religion 179 for description.

182 Contemporary Chinese Society (Anthropology 182) (3). See Anthropology 182 for description.


199 Advanced Topics in Asian Studies (1-4). The course topic will vary with the instructor. The class will be limited to seminar size, and students must receive permission from the instructor to register. Fall, spring, and summer. Staff.

51 Introduction to Chinese Culture through Narrative (3). This course shows how Chinese historical legends define and transmit the values, concepts, figures of speech, and modes of behavior that constitute Chinese culture. In English. Fall and spring. Henry.

101, 102 Elementary Written Chinese (3 each). Introduction to written Chinese, covering the same materials as CHIN 1 and 2 and fulfilling the same requirements. For students who already speak some Chinese and/or intend to concentrate on reading. Credit maybe awarded for CHIN 1/2 or 101/102, but not both. Fall and spring. Yue, Henry.

111 Advanced Chinese (3 each). Prerequisite, Intermediate Chinese or permission of instructor. Advanced readings in Chinese. Three hours per week. Fall and spring. Staff.

112, 113 Readings in Chinese I and II (3). Prerequisite, Chinese 111 or permission of instructor. Selections from modern Chinese literature. Further training in speech and composition for students whose Chinese is already reasonably developed. Fall and spring. Henry, Seaton, Yue.

115 Topics in Chinese Literature and Language (3). Prerequisite, Chinese 111 or permission of instructor. Directed readings in Chinese literature and language topics not covered by scheduled courses. Fall and spring. Staff.

120, 121 Literary Chinese (3 each). An introduction to the literary language of the Chinese classics. Fall and spring. Henry, Seaton.


144 Chinese Poetry in Translation (3). Selected topics in Chinese poetry concentrating on one period or one genre. Spring. Seaton.

145 Topics in Chinese Prose (3). Selected topics in Chinese fiction, historical writing, and prose belles lettres, concentrating on one period or one genre. Knowledge of Chinese language not required. Fall and spring. Henry.

148 Chinese Cinema (3). This course surveys Chinese film from the Mainland, Taiwan, and Hong Kong, examining films and criticism in social and historical contexts. Major topics will include nationalism, tradition, gender, and ethnicity. Fall and spring. Yue.

162 The Structure of Chinese (Linguistics 162) (3). See Linguistics 162 for description.

Chinese

1 Elementary Chinese (4). Introduction to Mandarin Chinese, providing instruction in the basic grammar common to both the spoken and written language. Spoken Mandarin will be emphasized and text materials will be in romanization. Five hours per week, three devoted to instruction in grammar and two to oral practice. Fall. Staff.

2 Elementary Chinese (4). Continued emphasis on spoken Mandarin but with accelerated presentation of characters. The aim is to present a total vocabulary of 300 characters by the end of the term. Five hours per week, three devoted to grammar and two to oral practice and drill in the writing of characters. Spring. Staff.

3, 4 Intermediate Chinese (4 each). Prerequisite, Elementary Chinese or permission of instructor. Second-year level of modern standard Chinese. Five hours per week, three devoted to reading and writing and two to oral drill. Fall and spring. Staff.

50 Introduction to Chinese Civilization (3). A course designed to introduce both beginning undergraduate majors in Asian Studies and General College students to the Chinese world of past and present. Fall. Seaton.

Hindi

101 Elementary Hindi-Urdu (3). No prerequisites. Introduction to modern spoken and written Hindi-Urdu. Speaking and listening practice, basic sentence pattern exercises, grammar fundamentals, the writing system, and creative applications exploring South Asian culture are included. Fall. Taj.

102 Elementary Hindi-Urdu (3). Prerequisite, Hindi 101 or permission of instructor. Continued instruction in modern spoken and written Hindi-Urdu. The Urdu writing system is introduced. Sessions include speaking and listening drills, skits, role play, and discussion of video and audio materials. Spring. Taj.

103 Intermediate Hindi-Urdu (3). Prerequisite, Hindi 102 or permission of instructor. Second year of instruction in modern spoken and written Hindi-Urdu, including situational speaking and listening practice, complex sentence pattern exercises and idioms, vocabulary building, intermediate grammar topics, and reading exercises. Fall. Taj.

104 Intermediate Hindi-Urdu (3). Prerequisite, Hindi 103 or permission of instructor. Continued second year of instruction in modern spoken and written Hindi-Urdu. Students practice writing short essays and letters and continue to develop oral competency in Hindi-Urdu. Spring. Taj.

105 Advanced Hindi (3). Prerequisite, HIND 104 or permission of instructor. Third year of instruction in spoken and written Hindi with an emphasis on the reading and discussion of literary works by major South Asian authors. Fall. Taj.

106 Advanced Hindi (3). Prerequisite, HIND 104 or permission of instructor. Continued third year of instruction in spoken and written Hindi with an emphasis on the reading and discussion of literary works by major South Asian authors. Spring. Taj.

107 Readings in Hindi Poetry (3). Prerequisite, Hindi 106 or permission of instructor. Introduces the development of Hindi and Hindi-Urdu poetry from the 15th century to the present, including the epic, devotional, dramatic, and romantic genres. BA-level aesthetic perspective. Fall. Taj.

108 Readings in Hindi Prose (3). Prerequisite, Hindi 106 or permission of instructor. Introduces the range of Hindi Prose Genres: the short story, the romance, the novel, and the autobiography. BA-level aesthetic perspective. Spring. Taj.

115 Topics in Hindi Literature and Language (3). Directed readings in Hindi literature and language on topics not covered by scheduled classes. Possible areas of study include Indian film and literature, Hindi-English translations, the Indian Diaspora, Hindi journalism, and readings in comparative religions. Fall, spring. Taj.

Japanese

101 Elementary Japanese (4). Introduction to Modern Japanese with text and supplementary materials. Hiragana and katakana scripts are introduced. Weekly class hours devoted to basic sentence pattern exercises, speaking and writing practice, and creative application. Fall. Staff.

102 Elementary Japanese (4). Prerequisite, Japanese 101 or permission of instructor. Continued beginning course of Modern Japanese with text and supplementary materials. Approximately 150 kanji are introduced. Focus on basic sentence pattern exercises, speaking and writing practice, and creative application. Free conversation encouraged. Spring. Staff.


105 Advanced Japanese (3). Prerequisite, Japanese 104 or permission of instructor. Written Japanese introduced to students who have learned more than 400 kanji. Entire class conducted in Japanese. Comparable to intensive intermediate level taught in Japan to nonnative speakers. Fall. Staff.


107 Literary Japanese (3). Prerequisite, Japanese 106 or equivalent. Designed to further improve reading skills. Students work independently using newspaper and magazine articles, literary works, academic publications, etc. Oral reports, discussions, and original compositions in Japanese required. Fall. Staff.

108 Literary Japanese (3). Prerequisite, Japanese 107 or equivalent. Designed to further improve reading and speaking skills. Students work independently using newspaper and magazine articles, literary works, academic publications, etc. Oral reports, discussions, and original compositions in Japanese required. Spring. Staff.

115 Topics in Japanese Languages and Literature (3). Prerequisite, permission of instructor. Possible areas of study include business Japanese, Japanese-English translation, and scientific technical Japanese. This course may be taken more than once for credit. Fall and spring. Staff.

116 Japanese Journalism (3). Prerequisite, Japanese 106 or the equivalent or permission of instructor. Uses newspaper and magazine articles and television reports to introduce journalistic writing and contemporary social and cultural issues. Class conducted in Japanese. Spring. Anzake, Kubota.

117 Japanese Modernism (3). Prerequisite, Japanese 106 or equivalent or permission of instructor. This course instructs students in how to read pre-war forms of modern Japanese and introduces them to the writers and ideas of the Modern Influential between the years 1907 and 1930. Class conducted in Japanese. Fall. Bardstey.

118 Topics in Contemporary Japanese Literature (3). Prerequisite, Japanese 106 or equivalent or permission of instructor. This course introduces students to the popular writing, both fiction and nonfiction, designed for mass-market consumption in contemporary Japan. Class conducted in Japanese. Spring. Bardstey.


133 Introduction to Japanese Literature (3). The major genres, aesthetic concepts, and classic and modern works of Japanese literature in English translation. Fall. Bardstey.

Vietnamese

1 Elementary Vietnamese I (4). Introduction to modern standard Vietnamese providing practice and instruction in basic grammar and vocabulary. Five hours per week, including two recitation classes that meet in small sections. Fall. Henry.

2 Elementary Vietnamese 2 (4). Prerequisite, Vietnamese 1 or equivalent. Provides expanded practice and instruction in the basic grammar and vocabulary of modern standard Vietnamese. Five hours per week, including two recitation classes that meet in small sections. Spring. Henry.

The curriculum also offers programs of study leading to undergraduate academic minors in Asian Studies, in Chinese, and in Japanese.

Minor in Asian Studies

A student may minor in Asian Studies by completing five courses with at least one course chosen from each of the following three divisions: History, Humanities, and Social Sciences. Students interested in Asian language courses should consider the Chinese or Japanese minors.
Minor in Chinese (Asian Studies)

The undergraduate minor in Chinese consists of five courses beyond Chinese 3, with the first three language courses (Chinese 1, 2, and 3) being the prerequisite.

At least three of the five core courses must be chosen from among the following: CHIN 4, 101, 102, 110, 111, 112, 113, 115, 120, 121; and the other two courses may be chosen from among the following: CHIN 50, 51, 133, 134, 138, 144, 145.

Minor in Japanese (Asian Studies)

The undergraduate minor in Japanese consists of four language courses beyond Japanese 103, with the first three courses (JAPN 101, 102, and 103) being prerequisite. These four language courses may be chosen from among the following: JAPN 104, 105, 106, 107, 108, 115, 116, 117, 118, 119.

For Further Information

Contact the director of the curriculum, Professor Lawrence Kessler, Curriculum in Asian Studies, 209A Abernethy Hall, CB# 3267, 962-6823 or 962-5091.

ASTRONOMY

(See Physics and Astronomy)

Department of Biochemistry and Biophysics

RONALD SWANSTROM, Acting Chair

Professors
David A. Brenner, Michael Caplow, Charles W. Carter Jr.,
Stephen G. Chaney, Marshall Edgell, Beverly Errede,
Donald T. Forman, Jack Griffith, Jan Hermans,
Barry R. Lentz, Patricia F. Maness, William F. Marzluff,
Gerhard W. Meissner, Pierre Morell, Aziz Sancar,
Ronald I. Swanstrom, Michael D. Topal, Thomas W. Traut,
Terry Van Dyke, Elizabeth M. Wilson, Richard V. Wolfenden.

Associate Professors
Stephen Crews, Ann H. Erikson, Howard M. Fried,
David J. Holbrook Jr., Hengming Ke, Brian J. Popko,
Gwendolyn B. Sancar, Jean-Michel Vos.

Assistant Professors
Sharon Campbell, Ed Collins, Lyndon Cooper, John Sondek,
Yue Xiong.

Research Professors
David G. Kaufman, Arrel D. Toews.

Research Associate Professor
Lawrence M. Silverman.

Adjunct Professors
Steven S.-L. Li, George W. Lucier.

Clinical Assistant Professor
Dianne M. Frazier.

Professors Emeriti
Michael K. Berkut, Edward B. Glassman, William H.
Pearlman, Ralph Pennalli, Howard A. Schneider, George K.
Summer, Robert H. Wagner, James R. White, John E. Wilson.

The Department of Biochemistry and Biophysics offers a number of courses to undergraduate students though it has no program leading to a B.A. or B.S. degree. The department serves undergraduate students who are interested in biochemistry, particularly students seeking a health-related career. It offers courses, research opportunities and counseling to students taking premedical, predental, nursing, dental hygiene, pharmacy, or public health curricula. Students majoring in other scientific disciplines such as chemistry, biology, or physics also are served by the Department of Biochemistry and Biophysics.

Course Descriptions

7 Introduction to Biochemistry (4). Designed to meet the needs of prenursing students, predental hygiene students, and students in the Medical Allied Health Professions. Brief review of inorganic and organic chemistry followed by a survey of biochemistry. Concurrent registration in BIOC 7L required. One year of high school chemistry is strongly recommended. (NOTE: Does not satisfy biochemistry prerequisites for medical school or graduate studies in biochemistry.) Three lecture hours and one two-hour laboratory a week. Fall. Toews, staff.

8 Introduction to Biochemistry (4). Prerequisite, Biochemistry 7 or equivalent. Designed to meet the needs of prenursing students, predental hygiene students and students in the Medical Allied Health Professions. Covers basic and clinically relevant aspects of biochemistry. Concurrent registration in BIOC 8L required. (NOTE: Does not satisfy biochemistry prerequisites for medical school or graduate studies in biochemistry.) Three lecture hours and one two-hour laboratory a week. Spring. Toews, staff.

40 Biochemistry of Nutrition (2). Prerequisites, Chemistry 11, 11L, and 21, 21L. A study of the science of nutrition with emphasis on: food, its nutrients and their relation to health; the biochemical or physiological role of required dietary nutrients; and the relevance of nutrition in preventive dentistry. Students should gain sufficient knowledge of the subject to allow them to make valid judgments about nutrition and health claims in the media. Fall. Frazier.

66 Biochemistry for Pharmacy Students (4). Prerequisites, Chemistry 61, 62 or equivalent. Lectures and recitation concerning the chemistry of biological molecules important in living organisms. Includes consideration of: enzymes, energetics, metabolism of carbohydrates, lipids, nucleic acids, proteins, and other nitrogen compounds; vitamins as coenzymes; metabolic regulation, biochemical genetics and the role of biochemistry in drug design. Spring. Plantadosi.

102 Undergraduate Research in Biochemistry (1-3). Prerequisites, an overall 3.0 G.P.A. and permission of course director. For juniors and seniors who wish to carry out an independent, mutually arranged research project in the laboratory of a biochemistry faculty sponsor. Restricted to on-campus work. Minimum three hours per week for each unit of credit per semester. May be repeated. May not substitute for honors, advanced elective, or other course requirements of another department. A written report is required in each term. Fall and spring. Fried, staff.
103 Biochemistry for Dental Students (5). Prerequisite, Chemistry 62 or equivalent. This course may be taken by qualified students who are not majoring in biochemistry. Fall. Staff.

104 Enzyme Properties, Mechanisms, and Regulation (Chemistry 133) (3). Prerequisite, Chemistry 130 or equivalent. Focuses on enzyme architecture; will illustrate how the shapes of enzymes are designed to optimize the catalytic step and become allosterically modified to regulate the rate of catalysis. Spring. Traut, Weeks, Wollenden.

105 Molecular Biology (3). Prerequisites, undergraduate biochemistry or genetics, and organic chemistry. Techniques in molecular biology, mechanisms of replication, transcription, and translation of genetic material in prokaryotic and eukaryotic systems, gene sequence and organization; regulatory mechanisms; and oncogenes. Fall. Crews, Fried, Van Dyke, Xiong.

108 Cellular Membranes (3). Prerequisite, Chemistry 130 or equivalent. Cellular organization, structure of lipids and membrane proteins and their interactions; transport systems; biogenesis, membrane fusion and traffic; cytoskeletal protein-membrane interactions; transmembrane signalling. Fall. Meissner, Erickson, Errede, Lentz.

110 Advanced Molecular Biology I (Microbiology 108, Genetics 110, Pharmacology 136, Biology 170) (3). Prerequisites, at least one undergraduate course in both biochemistry and genetics and permission of instructor. DNA structure, function, and interactions in prokaryotic and eukaryotic systems, including chromosome structure, replication, recombination, repair, and genome fluidity. Fall. A. Sancar, Griffith, Matson.

111 Advanced Molecular Biology II (Microbiology 109, Genetics 111, Pharmacology 137, Biology 179) (3). Prerequisites, at least one undergraduate course in both biochemistry and genetics and permission of instructor. RNA structure, function, and processing in biological systems including transcription, gene regulation, translation, protein and RNA transport. Spring. Baldwin, Fried.

117 Cell Structure, Function, and Growth Control I (2 or more). Prerequisites, undergraduate cell biology or biochemistry or permission of instructor. Comprehensive introduction to cell structure, function, and transformation. Fall. Meissner; Staff.

118 Cell Structure, Function, and Growth Control II (2 or more). Prerequisites, undergraduate cell biology or biochemistry or permission of instructor. Comprehensive introduction to cell structure, function, and transformation. Spring. Meissner; Staff.

125 Plant Physiology and Biochemistry (Biology 125) (3). Prerequisites, Biology 11 and Biology 41 or 52. An advanced course covering growth of plants including photosynthesis, nitrogen fixation, and biochemistry of cellular components: developmental processes, hormonal regulation and responses to stress. Spring. Staff (Biochemistry).

134 Case Studies in Structural Molecular Biology (3). Prerequisite, Chemistry 130 or equivalent. Principles of macromolecular structure and function with emphasis on proteins, molecular assemblies, enzyme mechanisms, and ATP enzymology. Spring. Carter.

139 Hormones and Evolution (Biology 139) (2). Prerequisites, Chemistry 130 or Biology 52 or Biology 50 or equivalent. An introduction to the chemistry of hormones and the biochemical mechanisms underlying their biological actions in evolutionary perspective with emphasis on unifying concepts. Spring. Pearlman.

142 Biochemical Toxicology (Toxicology 142) (3). Prerequisites, Chemistry 130, and one additional biochemistry course, or permission of course director. Biochemical actions of toxins, and assessment of cellular damage by biochemical measurements. Course intended primarily for graduate students. Spring. Holbrook (course director).

144 Basic Concepts/Models in Biophysics (1). Prerequisites, Chemistry 130 and two semesters of physical chemistry, or permission of instructor. Review of mathematical methods and models for describing macromolecule: noncovalent and covalent forces; statistical thermodynamics; molecular dynamics simulations; water as a solvent. Fall. Lentz.

145 Dynamics of Macromolecules (1). Prerequisites, Chemistry 130 and two semesters of physical chemistry or permission of instructor. Application of basic physical concepts to prediction of the properties of biological macromolecules using modern computational methods. Fall. Hermans.

146 Assembly/Stability of Macromolecular Complexes (1). Prerequisites, Chemistry 130 and two semesters of physical chemistry or permission of instructor. Macro-molecular diffusion and friction; thermodynamics of macromolecular systems: linkage of conformation change, ligand binding and self-assembly; order/disorder transitions in macromolecular structure. Fall. Hermans.

147 Spectroscopy: Principles and Applications (1). Prerequisites, Chemistry 130 and two semesters of physical chemistry, or permission of instructor. Principles of UV, IR, Raman, fluorescence, and spin resonance spectroscopies; applications to study of macromolecules and membranes. Spring. Lentz.

148 Structure and Dynamics of Biomolecules in Solution (1). Prerequisites, Chemistry 130 and two semesters of physical chemistry, or permission of instructor. Principles and practices of nuclear magnetic resonance spectroscopy; applications to biological macromolecule structure and dynamics in solution. Spring. Campbell.

149 X-Ray Crystallography of Macromolecules (1). Prerequisites, Chemistry 130 and two semesters of physical chemistry, or permission of instructor. Principles of protein crystallography; characterization of crystals: theory of diffraction; phasing of macromolecular crystals and structure refinement. Spring. Ke.

150 Imaging Macromolecular Assemblies (1). Prerequisites, Biochemistry 144-147 or permission of instructor. Application of electron microscopy, scanning force microscopy, and optical microscopies (fluorescence and confocal) to examining the organization and motions of macromolecules in cells. Spring. Lentz, Salmon, Jacobson, Costello, and others.

151 Macromolecular Interactions (1). Prerequisites, Biochemistry 144-147 or permission of instructor. Theory and practice of biophysical methods used in the study of interactions between macromolecules and their ligands, including surface plasmon resonance, analytical ultracentrifugation, and calorimetry. Spring. Lentz, Lombardo.

189 Molecular Biology Techniques (Biol 189, Genet 189, Micro 189, Phco 189, Phy 189) (4). Prerequisites, some molecular biology, permission of the instructor. These one- and two-week intensive courses are part of the Carolina Workshops series. Topics emphasized vary, but usually include techniques such as isolation of nucleic acids, blotting, cloning in viruses and plasmids, and DNA sequencing. Fall, spring, and summer courses available. Litaker and staff. Fee required. Eight laboratory hours.
Department of Biology

RALPH S. QUATRANO, Chair

Professors

Associate Professors

Assistant Professors
Ann C. Burke, Robert J. Duronio, David W. Pfennig, Robert P. Podolsky, Jason W. Reed.

Lecturers
Kenneth H. Bynum, Jean DeSaix, Catherine Lohmann.

Associated Faculty
Sarah R. Grant, Jim R. Massey, Elaine Y. Yeh.

Mathematics: Math 31, plus one of the following: Math 32, Computer Science 14, Statistics 11 or 23.

Natural Science Perspective: Chemistry 11-11L and Biology 11-11L.

In addition students must complete the following:
Physics 24, 25 or 26, 27.
Chemistry 21-21L, 41L, 61, 62-62L.
Biology 50, 52 and 54 (the core courses) and one Organismal Structure and Diversity course chosen from 41, 43, 47, 51, 63-63L, 72-72L, 73-73L, 80-80L, 97-97L, 103, 105, 110, 114-114L, or 132.
Four biology electives beyond 11, at least two of them with laboratory. At least two courses in biology must be numbered above 100.
Two additional courses in either biology, other natural sciences, or mathematics.
Free electives to accumulate 123 academic hours.

Suggested program of study for B.S. majors:

Freshman year
Biology 11, 11L
English 11, 12
Language 2, 3
Chemistry 11, 11L, 21, 21L
Mathematics 31 plus second course
Perspective (one course)

Sophomore year
Biology core (50, 52, 54)
Language 4
Chemistry 61, 41L, 62, 62L
Perspective (one course)
Physical education (one course)

Junior year
Biology electives (three courses)
Physics 24, 25 (or 26, 27)
Perspectives (3 courses)
Physical education (one course)

Senior year
Biology electives (two courses)
Natural science or biology electives (two courses)
Perspectives (two courses)
Free electives as needed to complete 123 academic hours

Bachelor of Science in Biology

This program is designed for students who intend to continue graduate study in biological or health sciences.

Students must fulfill all General College requirements with the following added restrictions:
Language: through level 4 (Language 4 may be taken PS/F; French, German, or Russian are recommended).

Bachelor of Arts in Biology

This program is designed to provide greater flexibility than the B.S. in meeting broad student interests.

Students must fulfill all General College requirements with the following added restrictions:
Mathematics: one of Math 22, 30, 31, Computer Science 14, or Statistics 11.
Natural Science Perspective: Chemistry 11-11L and Biology 11-11L.

Students must also complete the following:
Chemistry 21-21L.
Biology 50, 52, and 54 (the core courses) and one Organismal Structure and Diversity course chosen from 41, 43, 47, 51, 63-63L, 72-72L, 73-73L, 80-80L, 97-97L, 103, 105, 110, 114-114L or 132.
Three biology electives beyond 11, at least one with laboratory. At least one course in Biology must be above 100.
Four additional courses in biology, other natural sciences or mathematics (one of these will fulfill the Arts and Sciences Natural Science Perspective).
Students must also fulfill three of the other four Arts and Sciences Perspectives, the Cultural Diversity requirement, and take enough free electives to accumulate 120 academic hours.

Suggested program of study for B. A. majors:

Freshman year
Biology 11, 11L
English 11, 12
Language 2, 3
Chemistry 11, 11L, 21, 21L
Mathematics
Perspective (one course)

Sophomore year
Biology core (50, 52, 54)
Natural science electives (two courses)
Perspectives (four courses)
Physical education (one course)

Junior year
Biology electives (two courses)
Natural science electives (two courses)
Perspectives (two courses)
B. A. Perspectives (two courses)
Physical education (one course)
Free electives (two courses)

Senior year
Biology electives (two courses)
B. A. perspective (one course)
Free electives as needed to complete 120 academic hours

Minor in Biology
A student may minor in biology by taking four biology courses beyond Biol 11-11L, distributed as follows: two of the three core courses (50, 52, 54), one course with laboratory and one course numbered above 100.

Departmental Advisers for Majors
Second-semester sophomores electing a major in biology will be assigned to an adviser for biology majors in the College of Arts and Sciences plus a departmental faculty adviser.

Inquiry Track
Inquiry Track courses were established to emphasize student participation and influence. In these courses, students actively seek and assimilate information that is essential to understand how “truths” are established and challenged in the discipline under study. Inquiry Track courses and sections of courses are indicated in the Directory of Classes each semester using a footnote code, and they are open to students who have the required prerequisites.

Special Undergraduate Opportunities in Biology
During the second semester of the sophomore year, or later, students with a grade point average of 3.0 or higher in biology courses are encouraged to consult with their departmental adviser concerning the following special programs of study and research experience.

Laboratory Teaching Internship and Assistantship
See Biology 90, 91.

Undergraduate Research
See Biology 98.

Honors in Biology
Candidates for honors or highest honors must secure approval from the departmental honors adviser. They must have six hours of Biology 98 and 99, and maintain a grade point average in biology courses (exclusive of Biology 98 and 99) of at least 3.4 (for Honors) or 3.85 (for Highest Honors) at the end of the semester preceding the semester in which they graduate. Other requirements are detailed in a document available at the departmental office.

Other Career Opportunities
Those who plan careers in health sciences including dentistry, medicine, and veterinary medicine should consult with the Health Professions Advising Office, Rm. 201D Steele Bldg. Those who plan to teach in public schools should see the requirements for Science Teacher Programs under the School of Education. Special courses in Marine Science are offered through the Department of Biology and the Curriculum in Marine Science at the Institute of Marine Science, Morehead City, N.C.

Undergraduate Awards
The Henry Van Peters Wilson Award, established in 1976, honors Professor H. V. Wilson, first chair of the Department of Biology at UNC-Chapel Hill. It is given annually to the senior honors student in biology whose research in molecular-cellular biology is judged by a faculty committee to be the most outstanding. The recipient receives a monetary
award and personal plaque, and his or her name is inscribed on a plaque displayed in Coker Hall.

The Robert Ervin Coker Award, established in 1976, honors Professor R. E. Coker, a pioneer American ecologist and member of the department for many years. The award is given annually to the senior honors student in biology whose research in organismal biology and ecology is judged most outstanding by a faculty committee. The award includes a monetary gift and personal plaque, and the recipient's name is inscribed on a plaque displayed in Coker Hall.

The John N. Couch Award, established in 1986, honors the late John N. Couch, outstanding mycologist, Kenan Professor of botany and member, National Academy of Science. The award is given annually to the senior honors student with interests in plant biology who has demonstrated the highest ideals of scholarship and research. The award includes a monetary gift and personal plaque, and the recipient's name is inscribed on a plaque in Coker Hall.

The Irvine R. Hagadorn Award, established in 1981, honors Professor I. R. Hagadorn, teacher and student advisor in the department from 1962 until 1981. Given annually to the junior in biology with the highest overall scholastic average, the award includes a monetary gift and personal plaque. The recipient's name is inscribed on a plaque displayed in Coker Hall.

The Francis J. LeClair Award, established in 1974, honors the late Francis J. LeClair, renowned horticulturist and for many years, University Landscape Architect. The award, presented annually to the outstanding member of the graduating class who has majored in biology with a specialization in botany, includes a monetary gift and personal plaque. The recipient's name is inscribed on a plaque displayed in Coker Hall.

Courses for Undergraduates Only

Stated prerequisites are understood to mean "or equivalent" and may be waived by the course instructor for students who are adequately prepared.

NOTE: Biology 11-11L is the prerequisite for most advanced work in biology. However, entering freshmen may earn placement credit for Biology 11-11L by either: (1) scoring 3 or higher on the Biology Advanced Placement examination or (2) taking and passing the Department of Biology placement test offered several times during the year.

1 Biology Inquiry (1). No prerequisite. A seminar course that focuses on how biologists ask questions and resolve controversy. Students read and discuss excerpts from the original literature. Designed for freshmen but open to all interested students. Fall and spring. Pukkila and staff.

9 Freshman Seminar (3). No prerequisite. Does not count toward major. Limited to freshmen. The subject changes with each offering and will deal with topics of current interest in biology. Three discussion hours a week. On demand. Staff.

10 Issues in Modern Biology (3). For students not majoring in biology. (Students who have taken any other course in the Biology Department may not register for this course.) Recent advances in the understanding of major principles in biology. Emphasis to include the relevance and application of such advances to humans, society, and the environment. Three lecture hours a week. Spring. Litaker. GC: natural sciences (no lab) perspective.

11 Principles of Biology (3). Open to all undergraduates. Prerequisite to most higher courses in biology. An introduction to the fundamental principles of biology, including cell structure, chemical and physical composition, evolution, adaptation, and ecology. (See note above concerning Advanced Placement examination.) Three lecture hours a week. Fall, spring, and summer. DeSai, Dickson, Gersel.

11L Introductory Biology Laboratory (1). Corequisite or prerequisite, Biology 11. An examination of the fundamental concepts in biology with emphasis on scientific inquiry. Biological systems will be analyzed through experimentation, dissection, and observation. Three laboratory hours a week. Fall, spring, and summer. DeSai, staff.

41 Plant Biology (4). Prerequisites, Biology 11, 11L. Designed for students with an interest in natural sciences. An introduction to the principles of botany including structure, function, reproduction, heredity, environmental relationships, evolution, and classification of plants. Three lectures and three laboratory hours a week. Spring. Gersel.

43 Local Flora (4). Prerequisites, Biology 11, 11L. Open to all undergraduates. Recognition and identification of vascular plants with emphasis on the use of keys and other identification devices. Two lecture and four laboratory hours a week. Spring. Massey.

45 Fundamentals of Human Anatomy and Physiology (4). Prerequisite, Biology 11, 11L. A multimedia-based course emphasizing the relationship between structure and function of the body's major organ systems. All students take two separate two-hour laboratories. In the anatomy lab students are guided in the use of computer-based human anatomy software. In the human physiology lab students perform a variety of computer-assisted noninvasive measurements and prepare laboratory reports using class data obtained in real time. Two hours of lecture and one hour of recitation weekly; four scheduled hours of laboratory each week. Fall. Bynum and Misch. Spring and summer. Bynum.

47 Horticulture (4). Prerequisite, Biology 11. The cultivation, propagation, and breeding of plants, with emphasis on ornamentals. Control of environmental factors for optimal plant growth. Laboratory exercises include plant culture, propagation, pruning, and identification of common ornamentals. Two lecture, one recitation, and three laboratory hours a week. Fall. Parks.

50 Molecular Biology and Genes (4). Prerequisites, grade of C or better in Biology 11 and Chemistry 11L. Structure and function of nucleic acids, principles of inheritance, gene expression, and genetic engineering. Three lecture hours and one recitation-demonstration-conference hour a week. Fall, spring, and summer. Maroni, Searles, Bloom, Dangl, Pukkila, Matson, Duronio, staff.

51 Plant Diversity (4). Prerequisites, Biology 11, 11L. A survey of the major groups of plants emphasizing interrelationships, comparative morphology, and other topics of biological importance. Culturing techniques and some field work are included. Two lecture and four laboratory hours a week. Fall. Dickson.

52 Cellular and Developmental Biology (4). Prerequisite, Biology 50. Fundamentals of cell structure and activity in relation to special functions, metabolism, reproduction, embryogenesis, and with an introduction to the experimental analysis of cell physiology and development. Three lectures and one recitation-demonstration-conference hour a week. Fall, spring, and summer. Salmon, Peifer, Bollenbacher, Reed, Pringle, Jones, staff.
54 Ecology and Population Biology (4). Prerequisites, grade of C or better in Biology 11 and Chemistry 11. Principles governing the ecology and evolution of populations, communities, and ecosystems, including specialization, population genetics, population regulation, and community and ecosystem structure and dynamics. Three lecture and one recitation-demonstration-conference hour a week. Fall, spring, and summer. Stiven, Reice, Peet, White, staff.

63 Structure and Evolution of Vertebrates (3). Prerequisites, Biology 11, 11L. A history of the human body with emphasis on evolutionary history of vertebrates and anatomical evolution of organ systems. Three lecture hours a week. Fall and spring. Fuducca.

63L Vertebrate Structure and Evolution Laboratory (1). Prerequisite or corequisite, Biology 63. Vertebrate comparative anatomy of organ systems and their evolution with emphasis on human anatomy. Three laboratory hours a week. Fall, spring, and summer. Bynum.

72 Vertebrate Field Zoology (3). Prerequisites, Biology 11, 11L. Introduction to the diversity, ecology, behavior, and conservation of living vertebrates. Three lecture hours a week. Fall. Wiley.

72L Vertebrate Field Zoology Laboratory (1). Corequisite, Biology 72. Study of the diversity of vertebrates in the field. Three laboratory and field hours a week, including two weekend trips. Fall. Wiley.

73 Animal Behavior (3). Prerequisites, Biology 11, 11L. An introduction to animal behavior, with emphasis on the diversity and adaptation of behavior in natural conditions. Three lecture hours a week. Fall and spring. Lohmann.

73L Animal Behavior Laboratory (1). Prerequisite or corequisite, Biology 73. Techniques of observation and experiments in animal behavior. Three laboratory hours a week. Fall and spring. Lohmann.

80 Biology of Insects (3). Prerequisites, Biology 11, 11L. Study of insects with emphasis on physiology, ecology, and behavior. Three lecture, discussion, and demonstration hours a week. On occasion. Staff.

80L Biology of Insects Laboratory (1). Prerequisite or corequisite, Biology 80. Identification of insects and laboratory studies in insect physiology, ecology, and behavior; student projects in insect biology. Three laboratory hours a week and field collections. On occasion. Staff.

90 Laboratory Intern in Biology (1 P/F). Prerequisites, 3.0 or higher in course in question and all biology work and permission of instructor. Experience to include laboratory preparations, demonstrations, assistance, and attendance at weekly laboratory preparation meetings for the course. Interns will not be involved in any aspects of grading in the course. May be repeated with credit. Three laboratory hours a week. Fall, spring, and summer. Staff.

91 Laboratory Teaching Assistant in Biology (2 P/F). Prerequisites, 3.0 or higher in course in question and all biology work and permission of instructor and department chair. Experience and duties to include attendance at weekly laboratory preparation meetings for the course, laboratory preparations, demonstrations, instruction, and grading in one section of laboratory course. May be repeated for credit. Three laboratory hours a week. Fall, spring, and summer. Staff.

92 Senior Seminar (1). Prerequisite, faculty recommendation. Offered to seniors for more detailed and comprehensive exposure to unifying principles in biology. Discussions and analyses of selected topics by students. Three seminar hours a week. On demand. Staff.

94B Milestones in Biology and Medicine (3). No prerequisite. Introductory biology is recommended. The illnesses and infirmities of mankind have resulted in personal tragedies, scientific puzzles, and regional disasters. The biological basis, cultural associations, and medical responses to major health problems from ancient times to the present will be considered. Spring, Misch.

95 Directed Reading (2-4). Prerequisite, permission of the staff. Extensive and intensive reading of the literature of a specific biological field directed by an appropriate member of the faculty. Written reports on the readings, or a literature review paper will be required. On demand. Staff.

96 Special Topics (2 or 3). Prerequisite, permission of the staff. An undergraduate seminar course devoted to consideration of pertinent aspects of a selected biological discipline. On demand. Staff.

96L Special Topics Laboratory (1 or 2). Permission of the staff. An undergraduate laboratory course covering aspects of a specific biological discipline. Laboratory reports will be required. Research work is not included in this course. On demand. Staff.

97 Special Topics in Organismal Biology (2 or 3). Prerequisite, permission of instructor. An undergraduate course devoted to consideration of pertinent aspects of a selected organismal biological discipline. Offered on demand. Fall and spring. Staff.

97L Special Topics in Organismal Biology Laboratory (1 or 2). Prerequisite, permission of instructor. An undergraduate laboratory course covering aspects of a specific organismal biological discipline. Laboratory reports will be required. Research work is not included in this course. Fall and spring. Staff.

98A Undergraduate Research (VAR) (1-3). Prerequisites, Biology 11, 11L, an overall 3.0 grade point average, and permission of a faculty research director. Open to juniors and seniors. Directed readings with laboratory study on a selected topic. A final written report is required each term. May be repeated for total of no more than 6 credit hours. Biology 98A credit from three to five hours may be counted as one lecture course in the major; or six hours of 98A, or 98A and 99A credit can be counted as a lecture course with a laboratory in the major. Fall, spring, and summer. Staff.

98B Undergraduate Research (VAR) (1-3). Prerequisites, Biology 98A, an overall 3.0 grade point average, and permission of a faculty research director. Open to juniors and seniors. Directed readings with laboratory study on a selected topic. A final written report is required each term. May be repeated. This course is offered for pass/fail credit only. Fall, spring, and summer. Staff.

99A Senior Honors Thesis (3). Prerequisites, three credit hours of Biology 98A and permission of a faculty research director. Students with six hours of Biology 98A must take Biology 99B. See also the description of honors and highest honors under Special Undergraduate Opportunities in Biology in the statement preceding course descriptions. Required of all candidates of honors or highest honors in their senior year. Fall, spring. Staff.

99B Senior Honors Thesis (3). Prerequisites, six credits of Biology 98A and permission of a faculty research director. Students with six hours of Biology 98A must take Biology 99B. See also the description of honors and highest honors under Special Undergraduate Opportunities in Biology in the statement preceding course descriptions. Required of all candidates of honors or highest honors in their senior year. This course is offered for pass/fail credit only. Fall, spring. Staff.

Courses for Graduates and Advanced Undergraduates

The stated prerequisites should be interpreted to read "or equivalent" and may be waived by the course instructor for students who are adequately prepared.

101 Structure, Function, and Development of Plants (4). Prerequisite, Biology 52. A modern approach to growth, development, differentiation, and physiological processes in plants. Three lecture and three laboratory hours a week. Fall. Alternate years. Jones, Dickson, Quatrano.
103 Introduction to Plant Taxonomy (4). Prerequisites, Biology 41 and/or Biology 43 or permission of the instructor. Introduction to the taxonomy of vascular plants. Principles of classification, identification, nomenclature, and description. Laboratory and field emphasis on phytography, families, description, identification, and classification of vascular plant species. Three lecture and three laboratory hours a week. Fall. Massey.

104 Vertebrate Embryology (3). Prerequisite, Biology 45 or 52. Principles of development with special emphasis on gametogenesis, fertilization, cleavage, germ layer formation, organogenesis, and mechanisms with experimental analysis of developmental processes. Three lecture hours a week. Spring. Harris.

104L Vertebrate Embryology Laboratory (1). Prerequisite or corequisite, Biology 104. Descriptive and some experimental aspects of vertebrate development. Three laboratory hours a week. Spring. Harris.

105 Invertebrate Zoology (4). Prerequisites, Biology 11, 11L and one additional course in biology. An introduction to the major invertebrate phyla emphasizing the morphology, behavior, classification, and ecology of marine invertebrates. Three lecture and three laboratory hours a week. Spring. Lohmann, Podolsky.

108 Microbiology (3). Prerequisites, Biology 50 or consent of the instructor. Bacterial form, growth, physiology, genetics, and diversity. Bacterial interactions including symbiosis and pathogenesis (animal and plant). Use of bacteria in biotechnology. Brief introduction to fungi and viruses. Fall. Matthysse.

108L Microbiology Laboratory (2). Prerequisite or corequisite, Biology 108. Sterile technique, bacterial growth and physiology, bacterial genetics, bacteriophage, and bacterial diversity. Fall. Matthysse.

109 Bacterial Genetics (3). Prerequisites, for undergraduates, Biology 108; for graduate students, a molecular microbiology course. Genetics of eubacteria with emphasis on molecular genetics including regulation of gene expression, transposons, operons, plasmids, transformation, and conjugation. Spring. Matthysse.

110 Invertebrate Paleontology (Geology 132) (4). Prerequisites, Geology 16 or Biology 11; or permission of instructor. A survey of the major invertebrate phyla represented in the geologic record, with emphasis on broad skeletal morphology, evolutionary trends, ecology, and biostratigraphic significance. Three lecture and two laboratory hours a week. Fall. Carter.

111 Algae (Marine Science 111) (4). Prerequisites, Biology 11, 11L. An introduction to the identification, biology, ecology, and evolution of the algae. Two lecture and four laboratory hours a week. Spring. Hommersand.

113 Marine Algae (Marine Sciences 113) (4). Prerequisites, Biology 11, 11L. Structure, reproduction, systematics, and ecology of marine algae. The laboratory will include field studies and culture techniques. Two lecture and four laboratory hours a week. Spring. Hommersand.


114L Avian Biology Laboratory (1). Corequisite, Biology 114. Techniques for the study of avian evolution, ecology, and behavior with emphasis on North Carolina birds. Three laboratory or field hours a week, including one or two weekend field trips. Spring. Wiley.

115 Strategies of Host-Microbe Interactions (3). Prerequisite, Biology 52 or 108, or equivalents. There is great variety in how microbes colonize and live with their hosts. The course will summarize strategies of pathogenicity, symbiosis, commensalism, and mutualism. Evolutionary, cellular, and molecular aspects will be analyzed. Spring. Alternate years. Dangl.

120 Comparative Physiology (3.0). Prerequisites, Biology 11, 11L, Physics 24, 25. An examination of the physiology of animals using a comparative approach. Both invertebrate and vertebrate animals are discussed in order to elucidate general principles. Spring. Kier.

121 Introduction to Neurobiology (3). Prerequisite, Biology 52. Survey of neurobiological principles in vertebrates and invertebrates, including development, morphology, physiology, and molecular mechanisms. Three lecture hours a week. On occasion. Bollenbacher.

122 Human Genetics (Genetics 122) (3). Prerequisite, Biology 50. Pedigree analysis, inheritance of complex traits, DNA damage and repair, human genome organization, DNA fingerprinting, the genes of hereditary diseases, chromosomal aberrations, cancer and oncogenes, immunogenetics and tissue transplants. Three lecture hours a week. Spring. Maroni.


126 Oceanography (Marine Science 101; Environmental Science 127; Geology 101) (3). Prerequisites, major in a natural science or at least two college-level courses in natural sciences. The origin of ocean basins, chemistry and dynamics of seawater, biological communities and processes, the sedimentary record, and history of oceanography. Term paper. Intended for students with college science background; other students should see Geology 12. Three lecture hours a week. Fall. Neumann. Spring. Staff.

129 Laboratory in Cell Biology (4). Prerequisite, grade of C or better in Biology 52. Modern methods to study cells, technical skills necessary for research in cell and molecular biology, knowledge of good lab practice, operation of technical instrumentation. Spring. Jones.

130 Introduction to Biological Chemistry (Chemistry 130) (3). Prerequisites, Chemistry 62 or 66H, 62L or 66L; Biology 11. The study of cellular processes including catalysis, metabolism, bioenergetics, and biochemical genetics. The structure and function of biological macromolecules involved in these processes is emphasized. Fall and spring. Biological chemistry faculty.

131 Endocrinology (3). Prerequisite, Biology 52 or 62. Principles of neuroendocrine and endocrine systems of vertebrates and selected invertebrates with consideration of the anatomy and physiology of glands of internal secretion. Hormone chemistry and interendocrine relationships are also emphasized. Three lecture hours a week. On occasion. Bollenbacher.

132 Evolutionary Mechanisms (4). Prerequisite, Biology 50 and 54, or permission of instructors. Introduction to mechanisms of evolutionary change, including natural selection, population genetics, life history evolution, speciation, and micro-macровarative trends. Three lecture hours plus two hours of laboratory/recitation per week. Fall. Burke, Pfennig.

134 Biology of Blood Diseases (Pathology 134) (3). Prerequisite, Biology 52 or permission of instructor. An introduction to the biology and pathophysiology of blood and the molecular mechanisms of some human diseases, including malignant neoplasms, anemias, hemophilia, thrombophilia, arteriosclerosis, and viral infections. Fall. Church.

135 Taxonomy of Special Groups of Nonvascular Plants (2-6). Prerequisite, Biology 51. Field and laboratory identification and classification of special groups of nonvascular plants: 155a Aquatic Phycymycetes; 135b Marine Fungi; 135c Fleshy Fungi; 135d Mycorizoans; 135e Marine Algae; 135f Freshwater Algae. Nine laboratory hours a week. On demand. Hommersand.

139 Hormones and Evolution (Biochemistry 139) (2). Prerequisites, Chemistry 130, Biology 52, or Biology 50 or equivalent. An introduction to the chemistry of hormones and the biochemical mechanisms underlying their biological actions in an evolutionary perspective with emphasis on unifying concepts. Spring. Pearlman.
140 Biological Oceanography (Marine Sciences 104, Environmental Sciences 156) (4). Prerequisite, Biology 54 or 105 or permission. Physical, chemical, and biological factors characterizing estuarine and marine environments with emphasis on factors controlling animal and plant populations, including experimental approaches and methods of analysis, sampling, and identification. Five lecture and five laboratory hours a week. Summer. Alternate years. Offered on demand at the Institute of Marine Sciences, Morehead City, N.C. staff.

141 Special Problems in Marine Biology (Marine Sciences 141) (3-6). Prerequisites, Biology 140 and permission of the instructor. Survey of current problems and intellectual approaches in any of the following areas: Marine Ecology (Hay, Peterson); Marine Chemical Ecology (Hay, Lindquist); Marine Microbes (Kohlmeier, Paerl). Hours and credits by prior agreement (with five or more laboratory and conference hours a week per unit credit). Fall, spring, first or second summer sessions. Offered on demand at Morehead City, N.C. Staff of Institute of Marine Sciences.

142 Plant Ecology (4). Prerequisite, Biology 54. Consideration of terrestrial, vascular plant ecology including environmental physiology, population dynamics, and community structure. Laboratory stresses collection and interpretation of field data. Three lecture and three laboratory hours a week. Fall. Alternate years. Peet.

143 Ecological Plant Geography (Geography 103) (3). Prerequisite, Biology 11 or Geography 10. Description of the major vegetation types of the world including their distribution, structure, and dynamics. The principal causes for the distribution of plant species and communities, such as climate, soils, and history will be discussed. Fall. Alternate years. Peet.

144 Developmental Biology (3). Prerequisites, Biology 50 or Biology 52 and Chemistry 61. An experimental approach to an understanding of animals and plants. The approach covers developmental processes, molecular, genetic, cell biological and biochemical techniques, with an emphasis on the molecules involved in development. Spring. Bautch, Peifer, Burke.

145 Experimental Methods in Ecology and Evolution (3). Prerequisite, Biology 54. Quantitative and experimental approaches in ecological and evolutionary research including the construction of hypotheses and the corresponding experimental designs and analyses. Discussion of specific experiments in population, community, and evolutionary ecological research. Three lecture hours per week. Spring. Alternate years. Stiven.

146 Marine Ecology (Marine Sciences 146) (3). Prerequisite, Biology 54 or 105. A survey of ecological and oceanographic processes structuring marine communities in a broad range of habitats with an emphasis on experimental approaches to addressing both basic and applied problems in marine systems. Three lecture hours a week. Spring. Alternate years. Peterson, Hay.

147 Field Ecology (4). Prerequisite, Biology 54. Application of ecological theory to terrestrial and/or freshwater systems. Lectures will acquaint students with these systems and emphasize quantitative properties of interacting populations and communities within them. The required laboratory will teach techniques and methodology applicable for analysis of these systems. Individual and group projects will emphasize experimental testing of ecological theory in the field. Two lecture and six field hours a week. Spring. Alternate years. Reice.

148 Marine Biology (MASC 148) (3). Prerequisites, MASC 12 or BIOL 11. A survey of plants and animals that live in the sea: characteristics of marine habitats, organisms, and the ecosystems will be emphasized. Marine environment, the organisms involved, and the ecological systems that sustain them. Fall. Frankenber.

149 Ecosystem Structure and Function (3). Prerequisite, Biology 54 or a course in limnology or geochemistry. Pattern and process in natural ecosystems, with stress on comparative approaches to ecosytems and analysis. Topics include primary and secondary productivity, nutrient cycling, and the biogeochemistry of aquatic and terrestrial ecosystems. Three lecture hours a week. On occasion. Staff.

149L Ecosystem Structure and Function Laboratory (1). Corequisites, Biology 149 and permission of instructor. Use of data to generate empirical models of ecosystem patterns or processes. Individual research projects. Three laboratory hours a week. On occasion. Staff.

150 Animal Societies and Communication (3). Prerequisite or corequisite, Biology 73. Comparative review of animal societies; diversity of social structure, social dynamics, communication, ecology, and evolution of social organization. Three lecture hours a week. Spring. Alternate years. Wiley.


153 Comparative Morphology of Vascular Plants (5). Prerequisite, Biology 51. Comparative morphology and evolutionary relationships of the Tracheophyta. Both living and fossil forms will be considered. Three lecture and four laboratory hours a week. Spring. Alternate years. Gensele.

154 Neuroethology (3). Prerequisite, Biology 52 or permission. The neurobiological basis of animal behavior at the level of single cells, neural circuits, sensory systems, and organisms. Lecture topics range from principles of cellular neurobiology to ethological field studies. Spring. Alternate years. Lohmann.


156 Evolutionary Ecology (3). Prerequisite, Biology 132 or permission of instructor. Advanced topics in the evolution of form and function. May include issues in life-history evolution, evolutionary physiology, evolutionary morphology, and the evolution of complexity. Three lecture hours per week. Spring. (Alternate years). Podolsky.

157 Problems in Vertebrate Evolution (Geology 157) (3). Prerequisites, Biology 63 or permission of the instructor. A study of the major transitions in vertebrate evolution and associated problems in evolutionary biology, structural change, paleoecology, biogeography and earth history, physiology and behavior. On occasion. Frederici.

160 Developmental Genetics (Genetics 160) (3). Prerequisite, Biology 50 and 52, and permission of instructor required for undergraduates. Genetic and molecular control of plant and animal development. Extensive reading from primary literature. Fall. Bautch, Reed.

161 Principles of Genetic Analysis (Genetics 112) (3). Prerequisite for undergraduates, Biology 50. For graduate students, an undergraduate genetics course or permission of instructor. Analysis of recombination and other genetic interactions in prokaryotes, eukaryotes, and viruses. Fall. Petes, Pringle.

163 Laboratory Experiments in Genetics (4). Prerequisite, Biology 50. Experiments using a range of organisms from bacteria to Drosophila, higher plants, and man to sample organismic and molecular genetics. One lecture hour, four laboratory hours. Spring. Parks.

164 Molecular Biology (3). Prerequisites, Chemistry 61 and Biology 50. Emphasis is on prokaryotic molecular biology, plasmids l-phage and single-strand phages. Three lecture hours a week. Fall and spring. Stafford, Searles.

166 Unsolved Problems in Cellular Biology (3). Prerequisite, Biology 52. A survey of areas of current interest in cytology, embryology, and genetics with concentration on problems which remain unsolved, but which appear to be near solution. Three lecture and discussion hours a week. Fall. Harris, Pukkila.
167 Advanced Cell Biology (3). Prerequisite, Biology 52. An advanced course in cell biology, with emphasis on the biochemistry and molecular biology of cell structure and function. Three lecture hours a week. Fall. Quatrano.

171 Molecular Biology Techniques (4). Prerequisite, permission of instructor; Biology 164 recommended. Experiments with bacterial phage, nucleic acid isolation and properties, recombinant DNA techniques and DNA sequencing. Additional hours in laboratory will be necessary to complete assignments. Fall. Stafford.

175 Special Topics (3). Prerequisite, permission of instructor. Content will vary. Three lecture and discussion hours per week by visiting and resident faculty. Fall and spring. Staff.


178 Advanced Molecular Biology I (Genetics 110, Biochemistry 110, Microbiology 108, Pharmacology 136) (3). Prerequisites for undergraduates, at least one undergraduate course in both Biochemistry and Genetics. DNA structure, function, and interactions in prokaryotic and eukaryotic systems, including chromosome structure, replication, recombination, repair, and genome fluidity. Three lecture hours a week. Fall. Matson, Griffith, Sancar.

179 Advanced Molecular Biology II (Genetics 111, Biochemistry 111, Microbiology 109, Pharmacology 137) (3). Prerequisites for undergraduates, at least one undergraduate course in both Biochemistry and Genetics. RNA structure, function, and processing in biological systems including transcription, gene regulation, translation, and oncogenes. Three lecture hours a week. Spring. Kole, Fried, Baldwin.

181 Paleobotany (Geology 197) (4). Prerequisites, Biology 11, 11L and permission of instructor. An introduction to the morphology, stratigraphic occurrence, and evolutionary relationships of fossil plants. Both macrofossils and microfossils will be considered. Three lecture and three laboratory hours a week. Spring. Alternate years. Gensen.

184 Conservation Biology (3). Prerequisite, Biology 54. The application of biological science to the conservation of populations, communities, and ecosystems, including rare species management, exotic species invasions, management of natural disturbance, research strategies, and preserve design principles. On occasion. White.

185 Population Ecology (3). Prerequisite, Biology 54. An advanced treatment of topics in animal population and community ecology, stressing analytical and interpretation approaches. Topics will vary from year to year and the course may be repeated with credit. Three lecture and discussion hours a week. Spring. Alternate years. Stiven.


186 Community and Systems Ecology (3). Prerequisite, Biology 54. A holistic approach to ecology. State-space modeling of ecological processes. Other topics will vary but may include: spatial and temporal heterogeneity in communities and ecosystems; disturbance theory; decomposition; community structure and function; freshwater ecology. Spring. Alternate years. Reice.

186L Community and Systems Ecology Laboratory (1). Prerequisite or corequisite, Biology 186. Community and/or ecosystem modeling and computer simulation. Experimental analyses and validation in the field. Individual and group projects. Three laboratory and field hours a week. Spring. Alternate years. Reice.

189 Molecular Biology Techniques (Genet 189, Micro 189, Phys 189, Phy 189) (4). Prerequisites, some molecular biology, permission of the instructor. These one- and two-week intensive courses are part of the Carolina Workshops series. Topics emphasized vary, but usually include techniques such as isolation of nucleic acids, blotting, cloning in viruses and plasmids, and DNA sequencing. Fall, spring, and summer courses available. Litaker and staff. Fee required. Eight laboratory hours.

190 Frontiers in Cell and Molecular Biology (4). Prerequisites, two courses in biology and permission of instructor. Does not count toward a major in biology. Fall. Available by correspondence.

195 Field Biology at Highlands Biological Station (1-4). Prerequisites, Biology 11, or equivalent, or permission of instructor. Content will vary. Summer field biology at the Highlands Biological Station will generally focus on the special faunal and florisitic processes and patterns characteristic of the southern Appalachian mountain region. Five lecture and three to five laboratory and field hours per week, depending on credit. Summer. Staff.

With approval of the instructor and the associate dean of the College of Arts and Sciences, biology majors with at least a B average in biology courses, who need fewer than fifteen hours to complete the bachelor's degree, may take one or two courses at the 200-level for the purpose of later receiving graduate credit.

Department of Biomedical Engineering

CAROL L. LUCAS, Chair

The following courses are open to undergraduate students majoring in Applied Sciences. Students interested in a major in Biomedical Engineering should consider the Computer Science option or the Biomedical Materials Science option of the Curriculum in Applied Sciences.

Course Descriptions

102 Biomechanics (3). Prerequisites, PHYS 26, BMME 120, MATH 128 or equivalent, and permission of instructor. Fundamental principles of solid and fluid mechanics applied to biological systems. Human gait analysis, joint replacement, testing techniques for biological structures, and viscoelastic models are presented. Papers from current biomechanics literature will be discussed. Fall. Weinhold


107 Information, Modulation, Transmission, Information, and Noise (Applied Sciences 102) (3). Prerequisite, PHYS 101 and permission of instructor. Physics and network models of active devices. Active filter design and applications to communication systems including information theory. Spring. Quint.

112 Biomaterials (Applied Sciences 161) (3). Prerequisite, Physiology 140 or one year of college-level biology. Chemical, physical engineering, and biocompatibility aspects of materials, devices, or systems for implantation in or interfering with the body cells or tissues. Food and Drug Administration and legal aspects. Fall. Kuzy.

121 Digital Signal Processing I (Applied Sciences 103) (3). Prerequisite, Computer Science 14 or equivalent. This is an introduction to methods of automatic computation of specific relevance to biomedical problems. Sampling theory, analog-to-digital conversion, digital filtering will be explored in depth. Spring. Lucas.

132 Linear Control Theory (Applied Sciences 105) (3). Prerequisite, MATH 125 or equivalent. Linear control system analysis and design are presented. Frequency and time domain characteristics and stability are studied. Fall. Johnson.

160 Fundamentals of Materials Engineering (3). The structure, defects, thermodynamics, kinetics, and properties (mechanical, electrical, thermal, and magnetic) of matter (metals, ceramics, polymers, and composites) will be considered. Spring. Thompson.

Department of Cell Biology and Anatomy

CHARLES R. HACKENBROCK, Chair

Professors

Associate Professors
M. Joseph Costello, Deborah O’Brien, Roy Peach, Ellen Weiss

Assistant Professors
Lewis H. Romer, Michael Schaller

Research Associates
Brad Chazotte, Shoji Osawa, Richard Weinberg

Research Assistant Professors
Jorge Daniel Cortese, Pamela Diliberto, Gerald W. Gordon, Juliet Lee, Richard Richardson, Shao-Yu Chen

Research Instructors
Isabel Lea, Zheng-Shan Dai

Professors Emeriti
Malcolm C. Johnston, William S. Pollitzer

Course Descriptions
41 Introduction to Human Anatomy (3). A general course for persons preparing for careers as dental hygienists. Two lectures and two laboratory hours a week. Fall. Montgomery.

102 Human Histology (4). Prerequisite, permission of instructor. Introduction to the study of cells, organized tissues, and organ systems at levels of the light and electron microscopes with emphasis on human material. Fall. Lemasters, staff.

104 Microscopic Anatomy (4). Lectures and laboratory classes provide an understanding of the microscopic anatomy and histology of the basic tissues and major organ systems of the human body. Primarily for dental students. Fall. Peach.


106 The Cell (3). Prerequisite, permission of the instructor. Comprehensive introduction to cell structure and function. Emphasis on membrane organization, organelles, cell-cell and cell matrix interactions, the cytoskeleton, motile phenomena, and the regulation of cell growth including cancer cell biology. Fall. Jacobson, Burridge, and staff.

109 Human Development (1). Overview of normal human embryological development from fertilization to parturition with an emphasis on the origin and causes of congenital malformations. Fall. Sadler.

121 Embryology and Developmental Biology (3). Prerequisite, permission of instructor. A comprehensive study of the mechanisms underlying morphogenesis (generation of form) including cell migration and other morphogenetic movements, cell interactions, cell differentiation, and growth regulation. Fall. Lauder, Sadler.

121A Developmental Biology (2) Prerequisite, permission of the instructor. This is the second half of the Embryology and Developmental Biology course (CBIO 121). Fall. Lauder.

123 Developmental Toxicology and Teratology (Toxicology 123) (2). Emphasizes topics of current research interest relative to the genesis of environmentally caused and genetically based birth defects. One two-hour session per week (evening). Spring 1998 and alternate years. Sulik.

191 Gross Anatomy for Physical and Occupational Therapists (Physical Therapy 191) (6) Prerequisites, Biology 63 and 63L and permission of the instructor. Fundamental principles and concepts of human gross anatomy for physical therapists taught by lectures and cadaver dissection. Emphasis on functional anatomy. Three lectures and six laboratory hours a week. Fall. Montgomery.

193 Functional Neuroanatomy (Physical Therapy 193) (3). Prerequisites, Cell Biology and Anatomy 191, Cell Biology and Anatomy 107 or equivalent, and permission of instructor. Study of basic structure of the brain and spinal cord, including both lecture and laboratory. Primarily for physical therapy students. Four hours a week. Spring. Montgomery.

Department of Chemistry

EDWARD T. SAMULSKI, Chair

Professors

Associate Professors
Assistant Professors
Dorothy A. Erie, Michel R. Gagné, James P. Morken,
John M. Papanikolas, Scott L. Wallen, Kevin M. Weeks.

B.A. Degree with a Major in Chemistry
Students must meet the General Education requirements
of the General College and the College of Arts and Sciences;
the following courses must be included:

Freshman Year
Chemistry 11, 11L and 21, 21L; or 25H, 25L
Mathematics 31 and 32

Sophomore Year
Chemistry 61 or 65H, 41L or 45L and 51, 62 or 66H,
62L or 66L.
Physics 24, 24L and 25, 25L or 26 and 27

Junior and Senior Years
Chemistry 140, 170L
Chemistry 180 or 181
Choice of two courses: Chemistry 121, 130, 141, 150, 151,
171L or 182

B.S. Degree in Chemistry

The following courses are required:

Freshman and Sophomore Years
Chemistry 11, 11L and 21, 21L; or 25H, 25L
Chemistry 61 or 65H, 41L or 45L and 51, 62 or 66H,
62L or 66L.
Biology 11
English 11 and 12
Foreign Language
Mathematics 31, 32
Natural Science Courses (Mathematics 33 and 83;
Physics 26 and 27)
General College Perspectives (two courses)
Physical Education (two courses)

Junior and Senior Years
Chemistry 130, 136L, 140, 170L, 181, and 182

Chemistry 181L
Biochemistry Electives (three courses)
Biology 50, 52
General College Perspectives (two courses)
Non-science Electives (six hours)
Free Electives (nine hours)

Minor in Chemistry
The undergraduate minor in Chemistry consists
of six courses:
CHEM 21 or 25H
CHEM 61 or 65H
CHEM 62 or 66H
CHEM 21L or 25L
CHEM 41L or 45L
CHEM 62L or 66L

NOTE: CHEM 21 has a CHEM 11 prerequisite; CHEM 11
has a corequisite of CHEM 11L.

1 At least eighteen semester hours of credit in Chemistry courses above Chemistry 11
and 11L with individual grades of C or higher are required. (Grades of C- do not satisfy
this requirement.) Courses in Chemistry and other courses specifically required
and designated by number may not be taken pass/fail.
2 Physics 26 and 27 are encouraged for those students considering careers as profes-
sional chemists or those students that want the option to switch from the B.A.
program to the B.S. program.
3 Chemistry 171L is strongly recommended for students planning professional work
in chemical laboratories.
4 This program meets the requirements of the American Chemical Society for the training
of professional chemists.
5 A single foreign language, through level 4 (for example, German 4) if the language
was studied in high school, or through level 3 if the language was not studied in
high school. Courses above the minimum General Education requirement may be
taken pass/fail.
6 One course must be taken from each of the following Perspectives: Aesthetic,
Philosophical, Social Sciences, Pre-1700 Western Historical. (May not be taken
pass/fail)
7 In Chemistry 99 and Chemistry 101 may be taken for credit as many times as desired
but may be counted for no more than nine hours of total credit toward fulfillment of
graduation requirements. Additionally, Chemistry 99 may not be counted more than
once as an Advanced Chemistry Elective in the B.S. Chemistry Degree. Chemistry 99,
141, 141L, 150, and 182L are recommended in fulfilling Free Electives in the B.S.
 Chemistry, Biochemistry Track.
8 Three courses must be taken from the following: Chemistry 99, 131, 132, 133, 135,
136, Biochemistry 104, 105, 144. *Biology 62 or 108 can be substituted for a
Biochemistry elective.

9 It must be remembered that Chemistry 21L is a prerequisite and Chemistry 61 a
corequisite for Chemistry 41L or 45L. Also, Chemistry 61 or 65H is a prerequisite
to Chemistry 62L or 66L and Chemistry 62 or 66L is a pre- or corequisite to
Chemistry 62L or 66L. However, Chemistry 41L or 45L, 62L, or 66L can be taken
in either order as long as all pre-and corequisites are satisfied.

In order to advance to chemistry students must achieve
a grade of C- or higher in Chemistry 11.
Course Descriptions

10 Introduction to Chemical Concepts (2). A course emphasizing simple mathematical techniques. The course is intended for students demonstrating an inadequate background for Chemistry. Entry is by recommendation of the department and by agreement of the student following demonstrated inadequacies in Chemistry 11. The course starts about the twelfth lecture of Chemistry 11. Fall. Chemistry faculty.

11 General Descriptive Chemistry I (3). Prerequisite, Math 10; corequisite, Chemistry 11L. The course is the first member of a two-semester sequence. See also Chemistry 21. Atomic and molecular structure, stoichiometry and conservation of mass, thermochemical changes, and conservation of energy. Fall and spring. Chemistry faculty.

11L Quantitative Chemistry Laboratory I (1). Corequisite, Chemistry 11. One four-hour laboratory a week. Fall and spring. Chemistry faculty and staff.

15 Chemistry for the Consumer (3). A course designed for nonscience majors. Especially recommended for students who intend to major in subjects for which a knowledge of the relationship between chemistry and society is beneficial. Concepts of general and organic chemistry (atomic structure, the periodic table, bonding, acids and bases, hydrocarbons, functional groups, carbohydrates, polymers) constitute the first half of the course followed by a presentation of the applications of those concepts (radioactivity, fertilizers, insect control, brewing, baking, food preservation, fats and oils, soaps, vaccines, drugs, pollution). Since the emphasis is on chemical principles rather than on the applications, students who have taken Chemistry 11 or 21 are not permitted to take this course for credit. Chemistry faculty.

21 General Descriptive Chemistry II (3). Prerequisite, Chemistry 11; corequisite, Chemistry 21L. The course is the second member of a two-semester sequence. See also Chemistry 11. Chemical equilibrium, reaction rates, representative chemical structures and reactions. Fall and spring. Chemistry faculty.

21L Quantitative Chemistry Laboratory II (1). Prerequisite, Chemistry 11L; corequisite, Chemistry 21. Techniques for quantitative acid-base, redox, and complexometric titrimetry. Gravimetric analysis. Total salt ion exchange analysis. Transfer students who have not had quantitative analysis in their previous courses will take this laboratory. One four-hour laboratory a week. Fall and spring. Chemistry faculty and staff.

21H Advanced General Descriptive Chemistry (3). Prerequisite, placement credit for Chemistry 11, 11L or permission of instructor; prerequisite or corequisite, Mathematics 31. One semester course for students with strong backgrounds in high school chemistry and mathematics who desire a more in-depth treatment of the subject matter. By-examination credit for Chemistry 11, 11L is awarded upon satisfactory completion of Chemistry 21. Fall. Chemistry faculty.

25L Advanced Quantitative Chemistry Laboratory (1). Corequisite, Chemistry 25. Synthesis and physical studies that surpass that encountered in Chemistry 11L and 21L in terms of concepts considered rather than laboratory skills. Computer molecular modeling with a major focus on organic and biologically important molecules. One four-hour laboratory a week. Spring. Chemistry faculty and staff.


41L Laboratory in Separations and Analytical Characterization of Organic and Biological Compounds (1). Prerequisite, Chemistry 21L or 25L, pre- or corequisite, Chem 41 or 45H. Applications of separation and spectrophotometric techniques to organic compounds, including some of biological interest. This course serves as an organic chemistry laboratory for premedical and predental students. One three-hour laboratory a week. Fall, spring, and summer. Chemistry faculty and staff.

45L Honors Laboratory in Separations and Analytical Characterization of Organic and Biological Compounds (1). Prerequisite, Chemistry 21L or 25L, pre- or corequisite, Chem 41 or 45H. Applications of separation and spectrophotometric techniques to organic compounds, including some of biological interest. (This course serves as an organic chemistry laboratory for premedical and predental students. Honors equivalent of Chemistry 41L. One three-hour laboratory a week.


61 Introduction to Organic Chemistry I (3). Prerequisite, Chemistry 21 or 25H. Molecular structure and its determination by modern physical methods, correlation between structure and reactivity and the theoretical basis for these relationships; classification of "reaction types" exhibited by organic molecules using as examples molecules of biological importance. Fall and spring. (41L or 45L serve as an organic chemistry laboratory for premedical and predental students.) Organic chemistry faculty, Brookhart, Coke, Crimmins, DeSimone, Erickson, Evans, Forbes, Gagné, Kropp, Morken, Sorrell.

62 Introduction to Organic Chemistry II (3). Prerequisite, Chemistry 61 or 65H. Continuation of Chemistry 61, with particular emphasis on the chemical properties of organic molecules of biological importance. Spring. (62L or 66L serve as an organic chemistry laboratory for premedical and predental students.) Organic chemistry faculty.

62L Laboratory in Organic Chemistry (1). Prerequisite or corequisite, Chemistry 62 or 66H. Continuation of Chemistry 41L or 45L, with particular emphasis on applications of modern analytical spectroscopic techniques and separation and identification of organic unknowns. This course serves as an organic chemistry laboratory for premedical and predental students. One three-hour laboratory a week. Spring. Chemistry faculty and staff.

65H Honors Organic Chemistry I (3). Prerequisite, Chemistry 21 or 25H or permission of instructor. Molecular structure and its determination by modern physical methods, correlation between structure and reactivity and the theoretical basis for these relationships; classification of "reaction types" exhibited by organic molecules using as examples molecules of biological importance. (45L serves as an organic chemistry laboratory for premedical and predental students. Honors equivalent of Chemistry 61.) Fall. Organic chemistry faculty.

66H Honors Organic Chemistry II (3). Prerequisite, Chemistry 65H or permission of instructor. Continuation of Chemistry 65H with particular emphasis on the chemical properties of organic molecules of biological importance. Honors equivalent of Chemistry 62. (66L serves as an organic chemistry laboratory for premedical and predental students.) Organic chemistry faculty.

66L Honors Laboratory in Organic Chemistry (1). Prerequisite or corequisite, Chemistry 66H or permission of instructor. Continuation of Chemistry 45L, with particular emphasis on applications of modern analytical spectroscopic techniques and separation and identification of organic unknowns. This course serves as an organic chemistry laboratory for premedical and predental students. Honors equivalent of Chemistry 62L. One three-hour laboratory a week.
99 Research in Chemistry for Undergraduates (3). Prerequisites, one Chemistry course numbered 120 or higher and permission of instructor and vice chair of undergraduate studies. For advanced majors in chemistry and the applied science curriculum who wish to conduct a research project in collaboration with a faculty supervisor. Restricted to on-campus work. May be taken repeatedly for credit but Chemistry 99 and 101 together may not be counted for more than nine hours total credit toward B.A. and B.S. degrees in Chemistry, nor more than six hours total credit toward biochemistry track of the B.S. degree and Chemistry 99 may be counted for no more than three hours credit toward the advanced Chemistry elective category of the B.S. degree. Work done in Chemistry 99 may be counted towards Honors in Chemistry by petition to the Honors Committee of the department. Further details on Chemistry 99 and Honors in Chemistry are available from the Office of Undergraduate Studies, Room 203, Venable Hall. To be arranged. Chemistry faculty.

101 Special Problems in Chemistry (1-3). Prerequisite, to be determined by consultation with vice chair of undergraduate studies. Equivalent of one to three hours a week. Fall and spring. Chemistry faculty.

120 Polymer Chemistry (3). Prerequisite, Chemistry 62, prerequisite or corequisite, Chemistry 180 or 182. Introduction to polymer chemistry: synthesis and reactions of polymers; thermodynamics and kinetics of polymerization; physical characterization of polymers; industrial uses of polymers. Spring. Organic and physical chemistry faculty.

121 Synthesis of Polymers (Applied Sciences 121) (3). Prerequisites, Chemistry 51, 62 or 66H. Synthesis and reactions of polymers. Fall. Organic and inorganic chemistry faculty.

122 Physical Chemistry of Polymers (Applied Sciences 122) (3). Prerequisite, Chemistry 181; prerequisite or corequisite, Chemistry 182. Kinetics of polymerization, molecular weight distribution and molecular weight measurements, solution properties, solid state properties of macromolecules. Spring. Physical chemistry faculty.

123 Intermediate Polymer Chemistry (Applied Sciences 123) (3). Prerequisite, Chemistry 122. Rheology and mechanical properties of polymers; plastics, fiber, and elastomer technology. Spring. Chemistry faculty.

124L Polymer Chemistry Laboratory (Applied Sciences 124L) (2). Prerequisites, Chemistry 62 or 66H, 62L, or 66L, 121. Thermal analysis; solution viscosity; gel permeation chromatography; end group analysis; synthesis; characterization of an unknown polymer. One four-hour laboratory and one one-hour lecture each week. Spring. Chemistry faculty.

130 Introduction to Biological Chemistry (Biology 130) (3). Prerequisites, Chemistry 62 or 66H, 62L or 66L, Biology 11. The study of cellular processes including catalysts, metabolism, bioenergetics, and biochemical genetics. The structure and function of biological macromolecules involved in these processes will be emphasized. Fall and spring. Biological chemistry faculty, Erickson, Erie, Pielak, Spremulli, Thompson, Weeks.

131 Nucleic Acid Chemistry (Biochemistry 131) (3). Prerequisites, Chemistry 130; Biology 50. Study of reactions and chemical properties basic to nucleic acids; chemical synthesis and manipulation; nucleic acids in experimental studies. Spring. Biological chemistry faculty.

132 Protein Chemistry (3). Prerequisite, Chemistry 130. Structural properties of proteins; state of site chemistry; chemical modification of proteins; metalloproteins; coenzyme-enzymes reactions; organization of enzyme systems. Fall. Biological chemistry faculty.

133 Enzyme Mechanisms and Kinetics (3). Prerequisite, Chemistry 132. A detailed discussion of enzyme catalysis; principles of catalysis; enzyme kinetics; the active site of enzymes; allosteric interactions between subunits; the mechanism of coenzyme catalyzed reactions. Spring. Biological chemistry faculty.


136L Laboratory Techniques for Biochemistry (3). Prerequisite, Chemistry 130. An introduction to important chemical techniques and research procedures of use in the fields of protein and nucleic acid chemistry. Two four-hour laboratories and one one-hour lecture a week. Fall and spring. Biological chemistry faculty.

137 Membrane Chemistry (Biochemistry 137) (3). Prerequisites, Biology 11, Chemistry 130; corequisite or prerequisite, Chemistry 180 or 181. The structure and properties of synthetic membranes and of naturally occurring biological membranes. Spring. Biochemistry and chemistry faculty.


140 Analytical Methods (2). Prerequisites, Chemistry 41L or 45L, 62L, or 66L. Analytical separations, chromatographic methods, spectrophotometry, acid-base equilibria and titrations, fundamentals of electrochemistry. Fall. Analytical chemistry faculty.

141 Intermediate Analytical Chemistry (2). Prerequisites, Chemistry 41 or 45L, 41L or 45L, 62 or 66H and 180 or 181. Spectroscopy, electroanalytical chemistry, chromatography, thermal methods of analysis, signal processing. Spring. Analytical chemistry faculty.

141L Intermediate Analytical Chemistry Laboratory (2). Corequisite, Chemistry 141. Experiments in spectroscopy, electroanalytical chemistry, chromatography, thermal methods of analysis, and signal processing. One four-hour laboratory a week and one one-hour lecture. Spring. Analytical chemistry faculty and staff.

142 Analytical Research Techniques (2). Prerequisite, Chemistry 180 or 182. Introduction to chemical instrumentation including digital and analog electronics, computers, interfacing, and chemometric techniques. Two one-hour lectures a week. Fall. Analytical chemistry faculty.

142L Laboratory in Analytical Research Techniques (2). Prerequisite, Chemistry 180 or 182; corequisite, Chemistry 142. Experiments in digital and analog instrumentation, computers, interfacing and chemometrics, with applications to chemical instrumentation. One four-hour laboratory a week. Fall. Analytical chemistry faculty.

144 Separations (2). Prerequisites, Chemistry 141 and Chemistry 180 or 181. Theory and applications of equilibrium and nonequilibrium separation techniques. Extraction, countercurrent distribution, gas chromatography, column and plane chromatographic techniques, electrophoresis, ultracentrifugation, and other separation methods. Fall or spring. Analytical chemistry faculty.

145 Electroanalytical Chemistry (3). Prerequisite, Chemistry 180 or 181. Basic principles of electrochemical reactions, electroanalytical voltammetry as applied to analysis and the chemistry of heterogeneous electron transfer, analog electronics, and electrochemical instrumentation. Fall or spring. Analytical chemistry faculty.

146 Analytical Spectroscopy I (3). Prerequisite, Chemistry 180 or 182. Fundamentals of interactions of electromagnetic radiation with matter, vibrational, electronic, nuclear magnetic, mass spectrometry, scattering-based spectroscopy, instrumentation, and signal processing. Fall or spring. Analytical chemistry faculty.

147 Analytical Spectroscopy II (2). Prerequisite, Chemistry 180 or 182. Principles and applications of X-ray absorption and emission, photoelectron, Raman, gamma-ray, Mossbauer and internal reflection spectroscopy, nuclear quadrupole and electron spin resonance, fluorescence, optical rotatory dispersion and circular dichroism, secondary emission methods. Fall or spring. Analytical chemistry faculty.
148 Mass Spectrometry (2). Prerequisite, Chemistry 180 or 181. Fundamental theory of gaseous ion chemistry, instrumentation, combination with separation techniques, spectral interpretation for organic compounds, applications to biological and environmental chemistry. Fall or spring. Chemistry faculty.

150 Intermediate Inorganic Chemistry (3). Prerequisite, Chemistry 51. Electronic states of transition, metal ions, symmetry labels, ligand field theory and angular overlap model for coordination complexes, kinetics and mechanisms of transition metal reactions, organometallic chemistry, bioinorganic chemistry. Fall. Inorganic chemistry faculty.

151 Theoretical Inorganic Chemistry (Var.). Prerequisites, Chemistry 51, 62 or 66H. Chemical applications of symmetry and group theory, crystal field theory, molecular orbital theory. The first third of the course, corresponding to one credit hour, covers point symmetry, group theoretical foundations, and character tables. Fall. Inorganic chemistry faculty.

152 Electronic Structure of Transition Metal Complexes (3). Prerequisites, Chemistry 151. A detailed discussion of ligand field theory and the techniques that rely on the theoretical development of ligand field theory, including electronic spectroscopy, electron paramagnetic resonance spectroscopy, and magnetism. Spring. Inorganic chemistry faculty.

153 Physical Methods in Inorganic Chemistry (3). Prerequisite, Chemistry 151. Introduction to the physical techniques used for the characterization and study of inorganic compounds. (Topics typically include vibrational spectroscopy, nuclear diffraction, Mössbauer spectroscopy, X-ray photoelectron spectroscopy, and inorganic electrochemistry.) Spring. Inorganic chemistry faculty.

166 Advanced Organic Chemistry I (3). Prerequisite, Chemistry 62 or 66H; prerequisites or corequisites, Chemistry 150, 181. A survey of fundamental organic reactions including substitutions, additions, eliminations, and rearrangements; static and dynamic stereochemistry; constitutional analysis; molecular orbital concepts and orbital symmetry. Fall. Organic chemistry faculty.

167 Advanced Organic Chemistry II (2). Prerequisite, Chemistry 166. Spectroscopic methods of analysis with emphasis on elucidation of the structure of organic molecules: 1H and 13C NMR, infrared, ultraviolet, ORD-CD, mass and photoelectron spectroscopy. Chemistry 146 and 167 may not both be taken for academic credit. Spring. Organic chemistry faculty.


170L Synthetic Chemistry Laboratory I (2). Prerequisites, Chemistry 41L or 45L, 51, 62L or 66L. A laboratory devoted to synthesis and characterization of inorganic complexes and materials. A four-hour synthesis laboratory, a characterization laboratory outside of the regular laboratory period, and a one-hour recitation each week. Fall. Chemistry faculty and staff.

171L Synthetic Chemistry Laboratory II (2). Prerequisite, Chemistry 170L. An advanced synthesis laboratory focused on topics in organic chemistry. A four-hour synthesis laboratory, a characterization laboratory outside of the regular laboratory period, and a one-hour recitation each week. Spring. Chemistry faculty and staff.

175 Mechanisms of Organic and Inorganic Reactions (4). Prerequisite, Chemistry 150. Kinetics and thermodynamics; free energy relationships; isotope effects; acidity and basicity; kinetics and mechanisms of substitution reactions; one- and two-electron transfer processes; principles and applications of photochemistry; organometallic reaction mechanisms. Fall. Inorganic and organic chemistry faculty.

180 Introduction to Biophysical Chemistry (3). Prerequisites, Chemistry 61 or 65H; Physics 25; Math 32. Does not carry credit toward graduate work in Chemistry or credit toward any track of the B.S. degree in Chemistry. Application of thermodynamics to biochemical processes; enzyme kinetics; properties of biopolymers in solution. Fall. Physical chemistry faculty, Baer, Berkowitz, Eri, Johnson, Miller, Papapalou, Parr, Pedersen, Rubinstein, Samulski, Thompson.

181 Physical Chemistry I (3). Prerequisites, Chemistry 21 or 25H; Math 83; Physics 27, 38, or 61. Thermodynamics, kinetic theory, chemical kinetics. Fall. Physical chemistry faculty.

181L Physical Chemistry Laboratory I (2). Prerequisite or corequisite, Chemistry 181. Experiments in physical chemistry. One three-hour laboratory and a single one-hour lecture a week. Fall. Physical chemistry faculty and staff.

182 Physical Chemistry II (3). Prerequisites, Chemistry 181 and 181L. Introduction to quantum mechanics, atomic and molecular structure, spectroscopy, statistical mechanics. Spring. Physical chemistry faculty.

182L Physical Chemistry Laboratory II (2). Prerequisite, Chemistry 181L; prerequisite or corequisite, Chemistry 182. Experiments in physical chemistry. One four-hour laboratory a week. Spring. Physical chemistry faculty and staff.

184 Thermodynamics and Introduction to Statistical Thermodynamics (1-3). Prerequisite, Chemistry 182. Thermodynamics, followed by an introduction to the classical and quantum statistical mechanics and their application to simple systems. The section on thermodynamics can be taken separately for one hour credit. Fall. Physical chemistry faculty.

185 Chemical Dynamics (3). Prerequisites, Chemistry 181, 182. Experimental and theoretical aspects of atomic and molecular reaction dynamics. Fall or spring. Physical chemistry faculty.

186 Introduction to Quantum Chemistry (3). Prerequisites, Chemistry 181, 182. Introduction to the principles of quantum mechanics. Approximation methods; angular momentum; simple atoms and molecules. Fall. Physical chemistry faculty.

187 Introduction to Molecular Spectroscopy (3). Prerequisite, Chemistry 186. Interaction of radiation with matter; selection rules; rotational, vibrational, and electronic spectra of molecules; laser based spectroscopy and nonlinear optical effects. Fall or spring. Physical chemistry faculty.

188 Quantum Chemistry (3). Prerequisite, Chemistry 186. Applications of quantum mechanics to chemistry. Molecular structure; time-dependent perturbation theory; interaction of radiation with matter. Spring. Physical chemistry faculty.


190 Fundamentals of Materials Science (Applied Sciences 141) (3). Prerequisite, Chemistry 182; or prerequisite, Physics 28 and prerequisite or corequisite, Physics 105. Crystal geometry; diffusion in solids; mechanical properties of solids; electrical conduction in solids; thermal properties of materials; phase equilibria. Fall. Irene.

191 Mathematical Techniques for Chemists (3). Prerequisites, knowledge of differential and integral calculus. Chemical applications of higher mathematics. Fall. Chemistry faculty.

192 Chemistry and Physics of Electronic Materials Processing (Physics 144, Applied Sciences 142) (3). Prerequisite, Chemistry 182, or Physics 25 or 27, and permission of instructor. A survey of materials' processing and characterization used in fabricating microelectronics devices. Crystal growth, thin film deposition and etching and microlithography, characterization techniques, electric and dielectric properties of materials. Spring. Chemistry and Physics faculty.

193 Chemistry and Physics of Surfaces (Applied Sciences 143) (3). Prerequisite, Chemistry 190. The structural and energetic nature of surface states and sites; experimental surface measurements; reactions on surfaces including bonding to surfaces and adsorption; interfaces. Spring. Boland, Irene.
Department of City and Regional Planning

DAVID H. MOREAU, Chair

Professors

Research Professor
David J. Brower.

Associate Professor
Philip R. Berke.

Assistant Professors
Glenn D. Cassidy, Edward Feser, Asad Khattak, Helzi Noponen, Roberto Quercia.

Adjunct Professors
Edward M. Bergman, Jonathan B. Howes, Gerard McMahon III.

Associated Faculty

Professors Emeriti

City and Regional Planning is an interdisciplinary field whose purpose is to improve the quality of life for people in urban and suburban areas and in larger regions of the country. To this end, city and regional planners apply humanistic, social science, and specialized technical theory and knowledge to the layout and development of human settlements both here and abroad. Planners, for example, are involved in designing transportation systems, controlling the type and location of new development, encouraging economic development, protecting the environment, and revitalizing urban neighborhoods. They are involved in designing solutions to pressing societal problems such as unemployment, homelessness, air and water pollution, and urban decay.

The Department of City and Regional Planning offers two degree programs at the graduate level, and contributes courses for the undergraduate major in public policy analysis. A two-year program preparing for professional practice in city and regional planning leads to the degree of Master of Regional Planning. A program leading to the degree of Doctor of Philosophy prepares for careers in teaching and research. These two programs, opportunities in the field of city and regional planning, and application procedures are described in detail in a separate bulletin of the Department of City and Regional Planning which may be obtained by addressing a request to the department or accessing the department's homepage at <http://www.unc.edu/depts/derpweb>.

Although the Department of City and Regional Planning does not offer an undergraduate degree in planning, students normally take courses in the department for one of two reasons: to enrich or expand their current field of interest or to explore the possibility of a career in planning. Planning courses allow students to see how the humanities and the social sciences can be applied to improving our quality of life in cities, towns, and rural areas. In this way they help students deepen their appreciation of their major field of study. Some planning courses fulfill undergraduate degree requirements such as philosophical or social sciences perspectives.

Students also take planning courses to explore city planning as a career. City and regional planners work for a wide variety of public and private organizations. In the public sector they are employed by local, state, and federal governments. In the private sector they work for development companies, consulting firms, and a variety of nonprofit organizations. Although some opportunities exist for those with undergraduate degrees, a master's degree is normally required for advancement in the field. Many students want to prepare for graduate study by taking planning courses as part of their undergraduate program.

For undergraduate students interested in the study of public policy, the Curriculum in Public Policy Analysis provides a unique educational opportunity. Students who declare Public Policy as a major are required to complete a six-course core that provides a rigorous intellectual framework and skills for analyzing public policy options. Students also are required to take additional courses in an area of specialization. Internships between the junior and senior years are strongly recommended, and students are assisted in locating internships.

The requirements for Public Policy Analysis are described elsewhere in this Bulletin.

Three combined programs are offered in collaboration with related professional degree programs. These are: a combined program in Planning and Law in collaboration with the School of Law at Chapel Hill; a combined program in Planning and Business Administration in collaboration with the UNC's Kenan-Flagler Business School; and a combined program in planning and public administration in collaboration with the Department of Political Science.

Important resources available to the department include the Center for Urban and Regional Studies, a research and service activity in urban and regional affairs. The F. Stuart Chapin Library in New East is another important resource.

Regularly Scheduled Courses for Undergraduates

46 Introduction to Urbanism and Planning (3). Discussion and analysis of current urban problems and of forces responsible for urban and regional growth. Historical perspective on the planning profession and the planning approach to urban phenomena. Evaluation of current proposals dealing with aspects of the urban situation of the U.S. Fall. Faculty.

73 Urban Politics and Public Policy (PUPA 73) (3). A selection of public policy topics on the current urban agenda, with a focus on the political context. Particular stress on policy alternatives, feasibility, implementation, and the division of responsibility and coordination among levels of government and the public and private sectors. Spring. Staff.

94A Futures Analyses and Forecasting (3). An examination of the concepts and methods used in forecasting. Extrapolative techniques and future analysis methods. The application of forecasting techniques in various institutional settings. Spring. Faculty.

99 Honors Seminar in Urban and Regional Studies (3). An overview of the subject matter and methods of investigation of the several disciplines as these relate to the study of cities and regions. Discussions supplemented by presentation of original papers prepared by students. Fall or spring. Faculty.

**Regularly Scheduled Courses for Graduates and Advanced Undergraduates**

110, 111 Selected Topics in Urban Studies (3). An introduction to the functioning of the urban area as a complex system, and to the analysis of policies aimed at development and change. Fall or spring. Faculty.

124 Urbanization and Planning in the Third World (3). Surveys theories, issues, and planning strategies employed in developing countries. Topics include: rapid population growth and urbanization, squatter settlements, regional inequalities, problems of the urban and rural poor, women in the development process, financing urban development, rural development strategies, regional development planning, human settlement approaches, and national urbanization policies. Fall. Lacey.

125 Urban Services and Infrastructure (3). An examination of the public services provided by local governments and the facilities required to provide them. The course concentrates on transportation, water management, waste treatment, and air quality. Each urban service is examined with respect to its institutional framework, alternative service delivery mechanisms, public policy, and history. The course provides a rigorous analysis of the financing, pricing, and public regulation of these services, and covers methods for measuring their impacts, efficiency, and effectiveness. Spring. Luger.

126 Urban Transportation Planning (3). Fundamental characteristics of the urban transportation system as a component of urban structure. Methodologies for the analysis and planning of urban transportation. Techniques for the analysis of problems and the evaluation of plans. Fall. Khattak.

127 Public Transportation (3). A seminar investigating alternative public urban transportation systems including mass transit, innovative transit services, and paratransit schemes. The systems will be examined from economic, land use, social, technical, and policy perspectives. Spring. Faculty.

128 Transportation Policy and Planning (3). Prerequisite, PLAN 126 or permission of instructor. Examination of active transportation planning and policy questions; land use relationships, modal comparisons, environmental quality, transportation demand management, paratransit planning, the transportation needs of special populations, and international comparisons. Fall. Khattak.

129 Transportation Planning Models (3). Techniques for predicting transportation demand. The transportation planning process: data collection, trip generation, modal choice, trip distribution and assignment. System evaluation techniques: social, economic, and environmental impacts of transportation; investigation of innovative modeling techniques. Spring. Faculty.

130 Quantitative Analysis for Planners and Public Managers (3). Foundation course in statistical concepts and methods primarily for professional master's degree candidates and public policy majors. Descriptive statistics, estimation and hypothesis testing, simple correlation and regression, simple analysis of variance, and information acquisition, analysis, and presentation. Microcomputer laboratory. Fall. Khattak.

131 Quantitative Methods in Planning (3). Fundamental quantitative methods as aids in prediction and decision making in planning, including multivariate statistics, decision analysis, and linear programming and simulation. Spring. Lacey and faculty.

135 Introduction to Remote Sensing and Digital Image Processing (GEOG 177) (3). (See Geography 177.)

136 Geographic Information Systems (GEOG 191) (3) Prerequisite, Geography 173. Stresses the spatial analysis and modeling capabilities of organizing data within a geographic information system. Fall. Walsh, Moody.

142 Gender Issues in Planning and Development (WMST 142) (3). An examination of the experience of women in the urban environment and economic development process in the developing world. Topics include women's contributions to development, differential impact of urban planning and development on women's condition, methods for incorporating gender analysis into planning, and impacts of global economic change on women, especially in the informal sector of the economy. Fall. Nopomen.

153 Environmental Management and Policy (ENVR 153, PUPA 153) (3). The course provides an intense introduction to the field of environmental management and policy, including basic concepts and approaches, major elements and institutions, policy instruments, and environmental policy analysis. The course particularly emphasizes policies and management strategies for protecting ecological processes and human health against environmental risks. Fall. Andrews.

**Department of Classics**

GEORGE W. HOUSTON, Chair

Assistant Professors
Carolyn L. Connor, Donald C. Haggis, Michael Weiss.

Associate Professor
Peter M. Smith.

Professors

The Department of Classics offers four different major programs for the B.A. in Classics: Latin, Greek, Classical Archaeology, and Classical Civilization. A combined Latin and Greek major and a double major combining Greek or Latin with another subject are also available. Individual requirements are listed below; for more details of major programs, obtain a copy of the department's "Information for Majors" through the departmental office, 212 Murphey Hall.

The department offers a minor in Greek and a minor in
Latin. The undergraduate minor in Greek consists of four courses in Greek, including Greek 4 and three courses numbered higher than 4.

The undergraduate minor in Latin consists of four courses in Latin, including Latin 21 and three courses numbered higher than 21.

Certain conditions apply to Latin and Greek minors. The minor in either Classical language may not be an option for majors in Classical Archaeology who have chosen that language (Greek or Latin) to fulfill degree requirements (four courses above level 2).

However, Classical Archaeology majors may elect a minor in the other Classical language. Similarly, majors in Classical Civilization who are required to complete level 4 in either Greek or Latin may elect a minor in the other Classical language, but not in the one used to satisfy degree requirements in the major.

Descriptions of Greek and Latin courses are located later in the Department of Classics section.

Minor in Medieval Studies
The department also serves as home to an interdisciplinary minor in Medieval Studies. This minor consists of five courses, distributed across three departments, chosen according to the needs and interests of the student. The five courses must include one of the following core courses: ART 35, ENGL 51, HIST 15, or HIST 54. For further information, please contact the adviser for the minor in Medieval Studies in the Department of Classics.

Classical Semester in Rome
The Department of Classics is a founding member of the Intercollegiate Center for Classical Studies in Rome and regularly sends students there for a semester or a year. The center offers courses in Latin, Roman archaeology and history, Greek, Italian, and Art History. The program is open to qualified undergraduates in Art History, Ancient History, and Classical Studies. Interested students should consult the director of undergraduate studies.

Master of Arts in Teaching in Latin
Students who wish to be certified to teach in public high schools should major in Latin and then apply for admission to the MAT program in the School of Education. They should also discuss their plans with the School of Education no later than their junior year.

Eunice and Luther Nims Scholarship
As a result of the generous bequest of F. Boyden Nims, the Department of Classics is able to nominate Classics majors to the Student Aid Office for Eunice and Luther Nims Scholarships. The exact amount of the award varies with need, but may include full tuition and other expenses, including the extra expense of study at the Intercollegiate Center in Rome. Further information is available from the department's director of undergraduate studies.

Classical Archaeology
Students interested in majoring in Classical Archaeology should consult the department as early as possible. The requirements for the major (including some that may be taken as General College courses) are CLAR 49, 50, and three additional courses in Classical Archaeology, including one at the 100-level; Classics 33 or 35; Greek or Latin 1-4, and two additional courses in the same language, numbered above 5; History 52 and 53; Classics 90.

Course Descriptions
20 Old Testament (Art 20) (3). An introduction to Near Eastern and Classical archaeology through study of representative cities from Neolithic times to the period of the Roman Empire. Fall and spring. Staff. May not be used to help satisfy the degree requirements for the major in Classical Archaeology.

31 History of Western Art (Art 31) (4). See Art 31 for description. Fall. May not be used to help satisfy the degree requirements for the major in Classical Archaeology.

33 Ancient Survey (Art 33) (3). See Art 33 for description. Spring. Sturgeon. May not be used to help satisfy the degree requirements for the major in Classical Archaeology.

41 Minoans and Mycenaeans: The Archaeology of Bronze Age Greece (Art 41) (3). The course is a survey of the material culture of Greece, the Cyclades, and the eastern Mediterranean from the Neolithic period (ca. 50,000 years ago) until the end of the Bronze Age (ca. 1,200 B.C.E.). The primary focus will be on the urbanized palatial centers that emerged in mainland Greece (Mycenaean) and the island of Crete (Minoan) in the second millennium B.C. Spring. Haggis. GC/BA-level Western historical perspective.

47 Archaeology of Ancient Near East (3). A survey of the cultures of the ancient Near East, Mesopotamia, Anatolia (modern Turkey), and the Levant, from the first settled villages of the ninth millennium to the Persian conquest of Babylon in 539 B.C.E. Alternate years. Haggis.

48 Archaeology of Egypt (3). A survey of the archaeological remains of ancient Egypt, from the earliest settlements of the Neolithic period until the second century B.C.E. Spring. Haggis.

49 Greek Archaeology (Art 49) (3). The historical development of the art and architecture of Greece from the Bronze Age through the Hellenistic period. Fall. Haggis, Sams.

50 Archaeology of Italy (Art 42) (3). The historical development of the Italian peninsula as seen in its physical remains, with emphasis upon Etruscan and Roman sites. Spring. Staff.


75 The Archaeology of Cult: The Material Culture of Greek Religion (Religious Studies 75) (3). This course examines the archaeological context of Greek religion, cults, and associated rituals from the Bronze Age until the Hellenistic period with an emphasis on urban, rural, and panhellenic sanctuaries, and methods of approaching ancient religion and analyzing cult practices. Spring. Haggis.

77 Art of Classical Greece (Art 77) (3). See Art 77 for description. Alternate years. Sturgeon.

78 Roman Art (Art 78) (3). The arts of Rome, particularly sculpture, and painting, preceded by a survey of Etruscan and Hellenic art and their influence on Rome. Alternate years. Fall. Koeppe.

94A Archaeology and Man in the Mediterranean (3). For majors in Classical Archaeology and others with backgrounds in the subject. Focus upon types and techniques of archaeology and its role as an adjunct for other subjects. Alternate years. Haggis.

97, 98 Honors Course (6). See Classics 97, 98.
140, 141 Problems in the History of Classical Ideas (3 each). Prerequisite, permission of the department.

148 Art in the Age of Justinian and Theodora (Art 148) (3). Prerequisite, any course in History, Art History, Classics, or permission of instructor. Interdisciplinary course is based on monuments, history, and contemporary writings of the Byzantine empire during the rule of Justinian I (527 - 565) and the empress Theodora (527 - 548). Approach will be comparative, analytical, and contextual, and will include a feminist perspective. Fall. Connor.

149A Constantinople: The City and Its Art (Art 149A) (3). Prerequisite, any course in History, Art History, Classics, or permission of instructor. Interdisciplinary study of the city of Constantinople, capital of the Byzantine empire from 325 to 1453, with emphasis on the artistic, social, and cultural context. Includes study of monuments and their decoration, objects, contemporary documents and sources, all within a chronological, historical framework. Fall and spring. Connor.

149B In Constantinople (Art 149B) (3). Prerequisite, 149A or permission of instructor. This course, taught primarily in Istanbul, once Constantinople, capital of the Byzantine empire 325 - 1453, provides first-hand experience with monuments and an overview of the history, topography, and culture of this great city. Summer. Connor.

182 Mosaics: The Art of Mosaic in Greece, Rome, and Byzantium (Art 182) (3). Prerequisite, any course in Classics, Art History, or Religious Studies. Traces the development of mosaic technique from Greek antiquity through the Byzantine Middle Ages as revealed by archaeological investigations and closely analyzes how this dynamic medium conveyed meaning. Spring. Connor. BA-level aesthetic perspective.

188 The Archaeology of the Near East in the Iron Age (3). Prerequisite, CLAR 47 or permission. A survey of the principal sites, monuments, and art of the Iron Age Near East, ca. 1200 to 500 B.C. Alternate years. Sams.

189 The Archaeology of Anatolia in the Bronze and Iron Ages (Art 189) (3). Prerequisite, CLAR 47 or permission. A survey of Anatolian archaeology from the third millennium through the sixth century B.C. Alternate years. Sams.

190 Greek Architecture (Art 190) (3). Prerequisite, CLAR 49 or permission. Alternate years. Fall. Sams.

191 Architecture of Etruria and Rome (Art 191) (3). Prerequisite, CLAR 50 or permission. Alternate years. Spring. KoeppeL

193 Greek Painting (Art 193) (3). Sturgeon.

194 Archaic Greek Sculpture (Art 194) (3). Sturgeon.

195 Classical Greek Sculpture (Art 195) (3). Sturgeon.

196 Hellenistic Greek Sculpture (Art 196) (3). Sturgeon.

198 Aegean Civilization (Art 198) (3). Prerequisite, CLAR 49 or permission. The art of Minoan Crete and Mycenaean Greece from about 3000 - 1200 B.C. Staff.

199 The Archaeology of Dark Age Greece (3). Prerequisites, Clar 41, 49, 94, or 198; or by permission. Issues and problems in the analysis of the Greek Dark Age and its material culture from the collapse of the Bronze Age palaces to the earliest Greek city states. Fall. Haggis. BA-level Western Historical.

Classics in English/Classical Civilization
(Courses not requiring a reading knowledge of the Greek or Latin language)

The following courses in classical literature and civilization are especially designed to supply the necessary foundations for those who, without a reading knowledge of the ancient languages, want to learn about the Ancient World, or plan to specialize in modern literature, history, art, or one of the many other fields in which an acquaintance with the civilizations of the Greeks and Romans is desirable. When properly approved, these courses will be allowed to count as part of the major requirement in other departments.

Students considering a major in Classical Civilization should consult the department as soon as possible. The requirements for the major (including some that may be taken as General College courses) are Classics 33, Classics 34 (or History 101), Classics 35 (or History 103), and Classics 36 (or History 104A); Greek or Latin 1-4 and 21 (or higher); three additional courses, chosen from Greek, Latin, ancient history, archaeology, ancient philosophy, or Classics courses numbered above 40; Classics 90.

Course Descriptions

20 The Greeks (3). Introduction to the history, literature, religion, philosophy, science, art, and architecture of Greece from Homer to Alexander the Great. Emphasis on primary sources. Fall. Smith.

21 The Romans (3). A survey of Roman civilization from the beginning to the late empire, dealing with history, literature, archaeology, philosophy and religion, technology, the economy, and social and political institutions. Fall. Wooten.

25 Medical Word Formation and Etymology (3). Systematic study of the formation of medical terms from Greek and Latin roots, to build vocabulary and recognition. For general etymology see Classics 26. Fall. Staff.

26 Word Formation and Etymology (3). Systematic study of the formation of words from Greek or Latin to build vocabulary and recognition. For medical terminology see Classics 25. Spring. Staff.

30 The Heroic Journey (3). Study of a recurring motif, such as the hero on a journey, as it appears in important Greek and Latin works, with comparative examples from medieval and modern literature, as an introduction to the nature and spirit of the classics. Spring. Reckford.

31 The Theater in the Greek and Roman World (3). The physical setting and techniques of classical theater: tragedy, comedy, and other public spectacles in Greece and Rome. Alternate years. Fall. Smith.

33 The Age of Pericles (3). An introduction to Classical civilization through study of its most important period in Greece. Attention to history, philosophy, and art. Lecture and discussion. Spring. Stadter, West.

34 Alexander and the Age of Hellanism (3). An introduction to Classical Civilization through study of the period in which it spreads beyond mainland Greece to influence and partially merge with the cultures of the Near East, Egypt, and Rome. Attention to history, literature, philosophy, and art. Lectures and discussion. Alternate years. Brown, West.

35 The Age of Augustus (3). An introduction to Classical Civilization through study of the literature, history, and art of one of the most crucial periods in Roman history. Lectures and discussion. Fall. Houston, Wooten.

36 The Age of the Early Roman Empire (3). An introduction to the civilization of the Roman Empire through study of the literature, history, and archaeology of its most colorful period. Spring. Houston, Wooten.

42 Sex and Gender in Antiquity (WMST 42)(3). Exploration of gender constructs, what it meant to be a woman or a man, in antiquity, as revealed in literary, historical, and archaeological sources. Readings from Homer, Euripides, Plato, Ovid, Virgil, Juvenal, Petronius, and other ancient authors. Spring. Wooten.

43 Athletics in the Greek and Roman World (3). Study of athletics as a unifying force in ancient society, emphasizing the Olympic games and other religious festivals. Consideration of athletic professionalism, propaganda, and social trends using literary and archaeological sources. Alternate years. Fall. West.
Technology and Culture in the Roman Empire (3). A survey of the state of technology in Rome during the first three centuries A.D. Consideration of the interrelationships of technology and government, art, economics, and the quality of life. Alternate years. Spring. Houston.

Women of Byzantium (Women’s Studies 45) (3). A study of women’s roles and influence in the Late Antique and Byzantine world, through analysis of contemporary Byzantine texts by and about women, historical testimonies, and works of art. Fall. Connors.

Homer and the Heroic Age of Greece (3). The Iliad, the Odyssey. Homerian heroic and oral poetry. The archaeology of Homeric Greece, the study and influence of the Homeric poems in modern times. Alternate years. Fall. West.


Myth, Story, and Belief in Greek Literature (3). An introduction to myth, heroic lore, and religion through the study of major works of Greek literature. Core readings: Homer, Hesiod, and selections from tragic drama. Fall and spring. Staff.

Junior Seminar on the Cultures of Sicily (3). Prerequisite, junior standing. All departmental majors will jointly explore the history, archaeology, art and literature of Sicily from the Neolithic through the Middle Ages. Several oral and written seminars; seminar format. Fall. Staff.

Topics in Classical Studies (3). Students may suggest the chair of the department topics for individual or group study. Advance arrangements required. Both semesters.

The Seven Liberal Arts (3). Permission of the instructor required. Intended to provide an opportunity for seniors majoring in any department to develop a personal conception of the liberal arts with a historical and philosophical structure. Open only to seniors. Spring. Staff.

Honors Course (3). For departmental majors in Classical Archaeology. Classical Civilization, Greek, and Latin. Fall and spring. Staff.

Greek and Roman Historical Literature (History 109) (3). The study in English translation of selections from Herodotus, Thucydides, Livy, Tacitus, and others, with consideration of their literary qualities and their readability as historians. Fall. Lindeski, Stader.


Roman Law (3). Introduction to Roman law, public and private. On the basis of Roman texts in translation (or the original if desired), consideration of (a) the principles of Roman constitutional law and (b) the legal logic and social importance of Roman Civil Law. Spring. Alternate years. Lindeski.

Introduction to Byzantine Civilization (3). Intellectual and social history of the Byzantine Empire from Justinian to 1453, noting the interaction of Classical and Christian culture and Byzantium’s influence on neighboring peoples and on the Renaissance. Spring. Connor.

Greek

Students interested in an undergraduate major in Greek or in a combined major in Greek and Latin should consult the Department of Classics by the second semester of the sophomore year. The requirements for the major are Greek 1-4 and five additional courses in Greek; History 52 or a higher level course in Greek history; Classics 90. For Greek as satisfying the language requirement for the B.A. degree see the “General College” section.

Course Descriptions

Elementary Classical Greek (4 each). Fall and spring. Staff.


Intermediate Greek I and II (3 each). Prerequisite, Greek 1-2 or equivalent. Review of fundamentals; reading in selected classical texts, such as Xenophon, Plato, Euripides, or others. Fall and spring. Staff.

Greek New Testament (3). Prerequisite, Greek 3 or equivalent. Offered on sufficient demand. Spring. Staff.

Advanced Greek I (3). Substantial readings from Homer’s Iliad or Odyssey, the remainder of the selected poems to be read in translation. Fall. Staff.

Advanced Greek II (3). Readings from one or more Greek Tragedies. Spring. Staff.

Classical Greek Prose (3). Prerequisite, Greek 21. Readings in Herodotus, Thucydides, Plato, or other authors. Core of the department, this course may be repeated for credit. Fall. Staff.

Greek Poetry (3). Prerequisite, Greek 22. Readings in Sappho, Aeschylus, and other authors. Core of the department, this course may be repeated for credit. Fall. Staff.

Special Readings in Greek Literature (3). Prerequisite, Greek 22. Yearly as needed. Staff.

Honors Course (6). See Classics 97, 98.

Greek Dialects (Ling 106) (3). Prerequisite, graduate status or consent of instructor. Characteristics and historical development of the Greek dialects, including Mycenaean, with reading of selected texts. Alternate years. Staff.

Greek Composition (3). Prerequisite, Greek 21. Alternate years. Weiss.

Readings in Early Greek Poetry (3). Prerequisite, Greek 21 or 22. Alternate years. Brown.

Readings in Greek Literature of the Fifth Century (3). Prerequisite, Greek 21 or 22. Alternate years. Reckford, Stader.

Readings in Greek Literature of the Fourth Century (3). Prerequisite, Greek 21 or 22. Alternate years. West, Wooten.

Introductory Modern Greek (3 each). Offered irregularly. Staff.

Problems in the History of Classical Ideas (3). Prerequisite, permission of the department.

Greek New Testament (Religion 119) (3). Prerequisite, Greek 21 or equivalent. On application by five or more students. Staff.

Latin

Students interested in an undergraduate major in Latin or a combined major in Latin and Greek should consult the department by the second semester of the sophomore year. The requirements for the major are Latin 1-4 and six additional courses in Latin; History 53 or a higher level course in Roman history; Classics 90. For Latin as satisfying the language requirement for the B.A. degree see “General College.” Students interested in teaching Latin in public schools should consult the School of Education. Latin courses required are Latin 3, 4, 21 and any six courses 20-level or higher.
Course Descriptions
1-2 Elementary Latin (4 each). Fall and spring. Wooten, staff.
3-4 Intermediate Latin (3 each). Review of fundamentals. Reading in selected texts such as Catullus, Ovid, Cicero, or others. Fall and spring. Staff.
5 Medieval Latin (3). Prerequisite, Latin 3 or equivalent. Fall. Staff.
31 Roman Historians (3). Prerequisite, Latin 21. Readings in Caesar, Sallust, and/or Livy. Fall and spring. Staff.
32 Roman Comedy (3). Prerequisite, Latin 21. Readings in Plautus and Terence, or both. Staff.
33 Lyric Poetry (3). Prerequisite, Latin 21. Reading in Catullus and Horace. Staff.
34 Augustan Poetry (3). Prerequisite, Latin 21. Reading in Ovid, Tibullus, Propertius, or other poets. Staff.
51 Lucretius (3). Prerequisite, Latin 21. Reading in Lucretius and related works. Staff.
52 Petronius and the Age of Nero (3). Prerequisite, Latin 21. Staff.
53 Satire (Horace and Juvenal) (3). Prerequisite, Latin 21. Staff.
54 Tacitus and Pliny's Letters (3). Prerequisite, Latin 21. Staff.
91 Special Readings in Latin Literature (3). Prerequisite, Latin 21 or permission of instructor. Offered on demand. Staff.
97, 98 Honors Course (6). See Classics 97, 98.
110 Introductory Latin Composition (3). Prerequisite, Latin 22 or the equivalent. Review of Latin grammar and idiom, exercises in composition, introduction to stylistics. Fall. Weiss.
111 Readings in Latin Literature of The Republic (3). Prerequisite, Latin 21 or 22. Alternate years. Lindenski.
112 Readings in Latin Literature of The Augustan Age (3). Prerequisite, Latin 21 or 22. Alternate years. Mack, Reckford.
113 Readings in Latin Literature of The Empire (3). Prerequisite, Latin 21 or 22. Alternate years. Houston, Wooten.
114 Readings in Latin Literature of Later Antiquity (3). Prerequisite, Latin 21 or 22 or the equivalent. Alternate years. Ganz.
130 Medieval Latin Literature to the End of the Carolingian Age (3). Prerequisite, Latin 14 or 102, or the equivalent. Readings of selections from representative writers in prose and poetry. Fall. Staff.
131 Renaissance Humanism and the Latin Tradition (Comparative Literature 171) (3). Prerequisite, Latin 21 or equivalent. Topics in the evolution of Humanism from the twelfth century School of Chartres through Petrarch to Erasmus, including the transmission and assimilation of ancient texts; readings in Latin from a variety of writers. Alternate years.
140, 141 Problems in History of Classical Ideas (3). Prerequisite, permission of the department.

NOTE: One course from the group numbered 31-34 and one from the group numbered 51-54 will be offered each semester.

Department of Communication Studies
V. WILLIAM BALTHROP, Chair

Professors

Associate Professors
Howard Doll, Cori Dauber, Paul Ferguson, D. Soyini Madison, Della Pollock.

Assistant Professors
Joanne Hershfield, James Lee, Anna McCarthy, Steven K. May, Michael S. Waltman.

Professors Emeriti
Elizabeth Czech-Beckerman, Robert J. Gwyn, Martha Nell Hardy, William M. Hardy, J. Paul Nickell, James W. Pence Jr., Wesley H. Wallace.

Majors in the Department of Communication Studies must take a total of twenty-seven credit hours in the department, including three courses identified as "core" courses and at least three of which must be numbered 100 or higher. The three "core" courses are Comm 10, 11, and one of the following: 12, 13, 14, 32, 33, 34, 60, 71.

Additionally, each major must have a coherent program of study, defined as at least four courses in an area of study identified by the department, or at least four courses selected and justified by the student and approved by the director of undergraduate studies. For more details of major requirements, obtain a copy of the department's course descriptions/requirements packet available in 112 Bingham Hall.

Students are invited to work closely with faculty in courses, through independent study, cocurricular programs, and research projects. The department offers major programs leading to the B.A. and M.A. degrees. Courses are also open to nonmajors whose personal and professional goals require understanding of human communication.

Course Descriptions
9 Oral Communication (1). Prerequisite, test out of English 11 and 12. Required of all first-year students testing out of English 11 and 12 with the exception of those satisfying the freshman honors literature requirement (ENGL 29/29W, CLAS 29, SLAV 29, GERM 29, or ROML 29). Includes theory and practice in small group problem solving, oral argument, and public speaking.
10 Communication and Social Process (3). Addresses the many ways our communication—including language, discourse, performance, and media—reflects, creates, sustains, and transforms prevailing social and cultural practices.
11 Communication Analysis and Criticism (3). Considers fundamental skills involved in developing and responding to research questions and problems that arise from investigation of a contemporary communication event.

12 Voice and Articulation (3). Designed to establish good habits of communication through the study and application of basic principles of phonetics, physiology, and delivery.

13 Public Speaking (3). Theory and extensive practice in various types of speaking.

14 Introduction to Media Production (3). Prerequisite for all production courses. Introduces students to basic tools, techniques, and conventions of production in audio, video, and film. Interactive laboratory work included. Fall, spring, and summer. Lee, Flesherfield, Kidem.

22 Introduction to Interpersonal Communication (3). A study of interpersonal communication in a variety of situations, including interracial and intimate relationships. Considers language, nonverbal behavior, and listening.

23 Small Group Communication (3). An introduction to the theory and practice of communication in the small group setting. Course topics may include group development, conformity and deviation, gender, problem solving, and power and leadership.

24 Gender and Communication (WMST 56) (3). Examines multiple relationships between communication and gender. Emphasizes how communication creates gender and power roles and how communicative patterns reflect, sustain, and alter social conceptions of gender.

32 TV Production and Writing (3). Prerequisite or permission of instructor. A beginning course covering the basic techniques for producing a variety of material for television presentation. Six lecture hours per week.

33 Dramatic/Fiction Writing and Preproduction (3). Prerequisite or permission of instructor. A basic course dealing chiefly with drama.

34 Audio/Video/Film Production and Writing (3). Prerequisite, COMM 14. The material, processes, and procedures of audio, video, and film production; emphasis on the control of those elements of convention that define form in the appropriate medium. Lecture and laboratory hours.

40 Introduction to Mass Communications (3). Social Science approach to study of mass media institutions, processes, and effects. Includes communication theory, research approaches, economic, political, and technical dimensions. GC social science perspective.

41 Media Criticism (3). An introduction to the critical analysis of film and television. GC aesthetic perspective.

42 Popular Music and Youth Culture (3). This class explores the historical, social, political, and cultural significance of popular music as a communicative practice in the United States from 1950 to the present. Fall. Grossberg, Dyson.

60 Introduction to the Performance of Literature (3). Study of a variety of literary texts (lyric, epic, dramatic) through the medium of performance. GC aesthetic perspective.

61 Introduction to Group Performance (3). Prerequisite, COMM 60 and permission of instructor. Performance theory and rehearsal techniques explored through ensemble performance.

62 Oral Traditions (3). Introductory course in the form and functions of oral traditional practices. Topic areas may include: dynamics of orality, slang, childlore, storytelling, the trickster, and oral history. GC/BA-level social science perspective.

63 Performance of African/African-American Literature (3). Prerequisite, COMM 60. Survey of major African/American writing with alternating emphasis on poetry and narrative. BA-level aesthetic perspective.

64 Production Practices (1-3). The design and application of technical production concepts to a literary text. Includes lighting, set design, styling, and stage management.

70 Rhetoric and Social Controversy (3). Examines the basic nature and importance of rhetoric and argumentation. Attention is devoted to interpreting the persuasive function of texts and their relation to modern forms of life. Fall.

71 Argumentation and Debate (3). Analysis of issues, use of evidence, reasoning, brief-making, and refutation. Argumentative speeches and debates on legal cases and on current issues. Designed for prospective law students, public policy students, speech teachers, and college debaters.

72 The Rhetoric of Social Movements (3). Explores the discourse of dissent voices in American society, particularly as they speak about grievances pertaining to race, gender, the environment; focuses on rhetorical strategies that initiate and sustain social movements.

73 The Rhetoric of War and Peace (PWAD 60) (3). Explores philosophical assumptions and social values expressed by advocates of war and peace through a critical examination of such rhetorical acts as speeches, essays, film, literature, and song. GC philosophical perspective.

74 The Southern Experience in Rhetoric (3). Examines recurrent themes in the rhetoric of significant Southerners and important campaigns. Considers both the rhetoric of the establishment and the rhetoric of change. GC Western historical perspective.

75 Environmental Advocacy (3). Explores rhetorical means of citizen influence of practices affecting our natural and human environment; also, study of communication processes and dilemmas of redress of environmental grievances in communities and workplace. GC social science perspective.

79 Forensics (1). Permission of instructor required. This course provides an opportunity for interested undergraduates to practice extensively in the performance of academic debate.

80 Cultural Diversity (3). Introduction to basic paradigms of thinking about cultural difference (race, gender, nationality, religion, etc.) encouraging students to examine how those paradigms shape how we act, think, and imagine as members of diverse cultures. Staff. Cultural diversity perspective.

90 Internships (1-3). Departmental permission required. Individualized study closely supervised by a faculty adviser and by the departmental coordinator of internships.

91 Independent Study and Directed Research (3). For the COMM major who wishes to pursue an independent research project or reading program under the supervision of a selected instructor. Intensive individual research on a problem designed by instructor and student in conference. Departmental permission required.

95 Special Topics in Communication Study (3). A special topics course on a selected aspect of communication studies.

98 Honors (3). Individual projects designed by students and supervised by faculty member(s). Permission of the department is required.

99 Honors (3). Individual projects designed by students and supervised by faculty member(s). Cannot count toward the minimum requirements for the COMM major. Spring.

110 Introduction to Quantitative Research (3). Basics of data collection, measurement instrument development, and data analytic approaches to communication research are presented to the student. Emphasis is placed on practical application of research.

111 Introduction to Critical Perspectives (3). This course, assuming all humans are critics, explores theories of criticism and symbolic action through readings, lecture, and practical criticism of literature, film, discourse, and other symbolic acts. BA-level philosophical perspective.

112 Persuasion (3). Examines contemporary theory and practice of influencing others' attitudes, beliefs, and actions. Focuses particularly on analyzing and developing persuasive messages.

113 Political Communication (3). A course covering the relationship between communication and political processes and institutions. Topics include media coverage and portrayal of political institutions, elections, actors, and media influence on political beliefs. GC social science perspective.
114 Social Dialects (3). An examination of the nature and role of language, language usage, and dialect in the United States.

120 Interpersonal Communication (3). Course focuses on how communication is used to build and sustain interpersonal relationships. Forms and functions of communication are examined as a means of testing and defining relationships.

121 Communication and Social Cognition (3). An investigation of psychological aspects of communication, particularly the perceptual and interpretive processes underlying the sending and receiving of messages. BA-level social science perspective.

122 Transcultural Communication (3). Prerequisite, one of the following: COMM 22, 72, 73, 74. Examines interpersonal and public communication among people from different cultures. Includes case studies of individuals, subcultures, and nations.

123 Communication in Organizations (3). Examines internal and external systems of communication; information flow; public, small group, and interpersonal communication.

124 Family Communication (3). Analysis and exploration of personal experiences, family systems theory, and communication theory to describe, evaluate, and improve family communication patterns. Spring.

125 Communication and Leadership (3). Critical examination of alternative theories of leadership and trends in the study of leadership; focuses on the communicative dimensions of leadership.

126 Nonverbal Communication (3). Examines the roles and functions of nonverbal behavior in the communication process. Topic areas may include physical appearance; body, face, and eye movements; paralinguistics; haptics; nonverbal deception; the effects of environment; and personal space.

130 Communication Studies 127 (SPHS 130) (3).

129 Topics in Interpersonal and Organizational Communication (3). Designed for advanced students, course provides in-depth examination of particular theories of human communication. Course focus varies.

130 Advanced Audio Production (3). Prerequisite, COMM 14, 34, 41. Advanced analysis and application of the principles and methods of audio production.

131 Television Directing (3). Prerequisite, COMM 32. The aesthetics of television directing: script analysis, direction of performance, set and lighting design, creative visual and radio communications. Students direct several television projects.

132 Advanced Scriptwriting for Television, Film, and Stage (3). Prerequisite, COMM 33. A major writing project will be completed by each student, either dramatic or nonfiction for radio, television, film, or stage.

133 Media Acting and Performance (3). Study and practice in acting and performance for radio, television, and motion pictures.

135 Documentary Production (3). Prerequisite, COMM 41, 34, or previous production experience. A workshop in the production of video and/or film nonfiction or documentary projects. The course will focus on narrative, representational, and aesthetic strategies of documentary production. Fall and spring, Kindien, Hershfield.

139 Special Topics in Media Production (3). Prerequisites. A special topics course on a selected aspect of media production or writing.

140 Mass Media Criticism and Theory (3). Examination and application of contemporary critical approaches to mass mediated works; survey of current issues in aesthetic theory as related to mass media.

141 Audio Theory Criticism and Aesthetics (3). An examination of theories of aurality, psycho-acoustics, and the development of the audio aesthetic. Course includes, but is not limited to, audio in film, video, and multimedia.

142 The Documentary Idea (3). Historical and theoretical examination of expressions of the documentary idea in different eras and various modes including film, television, and radio.

143 History of Film (3). Study of the development of the art and craft of the film through examining individual films and topics stressing the interaction of aesthetic considerations with sociocultural and institutional settings.

144 Communication and Information Technologies (3). A survey of developing telecommunications systems and technologies and their impact on the traditional electronic media and society.

145 Informational Broadcasting (3). Study of the structure, preparation, and production of informational radio and television programs including the investigative documentary and radio and television "talk" programs. Instruction in data collection, analysis, and preparation of informational programs.

146 History of Film I, 1895 to 1945 (3). Prerequisite, COMM 41. Study the development of the art of film through World War II by examining individual films and filmmakers and the emergence of national cinemas through interaction among aesthetic, social, economic, and technological factors. Fall. Kindien, Hershfield.

147 History of Film II, 1945 to Present (3). Prerequisite, COMM 41. Study the development of the art of film from the end of World War II to the present day by examining individual films and filmmakers and the emergence of national cinemas through interaction among aesthetic, social, economic, and technological factors. Spring, Kindien, Hershfield.

148 Cinema of the Third World (3). Designed for the nonmajor, this course examines contemporary filmmaking in Africa, Latin America, and the Middle East as an aesthetic response to the conventions of "dominant" Hollywood style. BA-level Non-western/comparative perspective.

149 Third World Media (3). The cultural and educational uses of radio and television are studied in the developing countries of Africa, Latin America, and India. Emphasis will be placed on the new electronic media and their effectiveness in serving developing countries. BA-level Non-western perspective.

150 Media and Popular Culture (3). Examination of communication processes and cultural significance of film, television, and other electronic media.

151 Contemporary International Film/Television (3). Study of contemporary film/television within a specific international context, such as Great Britain, with particular attention to comparisons and contrasts with the United States and Hollywood.

152 Minorities and the Media (3). The course traces the development of minorities in film, radio and television, and the press, looking at trends and treatment of minorities by the media, and how and if they have changed.

153 Community and Media (3). A study of the electronic media as a feedback mechanism for community organization and social change. A variety of broadcast and nonbroadcast uses of the media are studied.

154 Media Law and Regulation (3). A study of laws affecting media; the role of the courts and federal regulatory agencies in media regulation.

155 International Communication and Comparative Journalism (JOMC 140; POLI 146) (3). Development of international communication; the flow of news and international propaganda; the role of communication in international relations; communication in the developing nations; comparison of press systems. BA-level social science perspective.

156 Introduction to Instructional Materials Production (EDUC 113) (3). The planning and production of two and three dimensional instructional materials, such as: television graphics, slides, overhead transparencies, manipulative tactile materials, and animated pictures.

157 Implications of Electronically Mediated Communication (3). An examination of optical/digital technologies and the social practices and communicatory processes they encourage and subvert. Fall.

158 Latin American Cinema (3). This course examines the films, audiences, and social contexts of Latin American cinema from the 1930s to the present. Fall. Hershfield.
159 Special Topics in Media Studies (3). A special topics course on a selected aspect of media studies, including but not limited to media texts, contexts, and/or reception.

160 Performance of Literature by Women of Color (WWMST 146) (3). Prerequisite, COMM 60 or permission. The course explores contemporary poetry, feminist discourse, and performance traditions by Latina, Native American, and African American women. Study of culture and performance will culminate in the enactment of poetry. BA-level aesthetic perspective.

161 Oral History and Performance (WWMST 173) (HIST 173) (3). This course combines readings and fieldwork in oral history with study of performance as a means of interpreting and conveying oral history texts. Emphasis on women's history. Fall and spring.

162 Group Performance (4). Prerequisite, COMM 60, 61, one 100-level performance course, and permission of instructor. Theory and practice in adaption, direction, and group performance of texts.

163 Performance of Children's Literature (3). Prerequisite, COMM 60 and permission of instructor. The course explores advanced performance theory while focusing exclusively on contemporary poetry, prose fiction, and drama intended for young audiences. Both solo and group performances for young viewers are included. BA-level aesthetic perspective.

164 Poetry in Performance (3). Prerequisite, COMM 60. Critical, aesthetic, and rhetorical approaches to performed poetry. BA-level aesthetic perspective.

165 Ritual, Theatre, and Performance in Everyday Life (3). Prerequisite, COMM 60 or English 26. This course will explore the dynamics of performance as it is broadly produced within the texture of individual experiences, the interaction of community memberships, and the dramas of cultural aesthetics. Fall, spring. BA-level aesthetic perspective.

166 Narrative Fiction in Performance (3). Prerequisite, COMM 60. Study of selected short stories and novels in performance with emphasis on narrative point of view. BA-level aesthetic perspective.

167 Rhetoric of Performance (3). Prerequisite, COMM 60 or 62 and one 100-level Speech class. Addresses rhetorical conceptions of performance. Topic areas may include performance in ritual and cultural theory; modernist avant-gardism and epic theatre; postmodern performance; performance of oral history.


169 Special Topics in Performance Studies (3.0). Prerequisites, COMM 60 and one 100-level performance course. Advanced study of selected topics drawn from performance history, theory, and practice. May be repeated.

170 Classical Rhetoric (CLAS 112) (3). Lecture on the nature, development, and influence of Greek and Roman rhetoric, with class discussion of important rhetorical treatises.

171 Rhetorical Theory and Practice (3). Prerequisite, COMM 72, 74 or permission of instructor. Investigates contemporary theories of purposive symbolic behavior; focus is upon rational, psychological, and dramatic explanations of human behavior.

172 Public Policy Argument (3). Prerequisite, COMM 71 or permission of instructor. Analyzes arguments in 20th-century decisions in an attempt to understand bases of justification; topics include deliberation about values, the logic of prediction, and the criterion of reasonableness in selection of a policy alternative.

173 The American Experience in Rhetoric (3). Prerequisite, COMM 72, 73, 74, or permission of instructor. Examines public discourse from the colonial period to the present. Discourses, critical perspectives, and historical periods studied will vary.

174 War and Culture (FWAD 162) (3). This course examines American cultural myths about war generally and specifically about the causes of war, enemies, weapons, and soldiers, and the way these myths constrain foreign and defense policy, military strategy, and procurement. Fall.

175 Speechwriting (3). Prerequisite, COMM 13 or 71. Introduces the student to the principles of writing speeches with special attention to adaptation to audience and occasion and to oral style.

179 Special Topics in Rhetoric and Cultural Studies (3). A special topics course on a selected aspect of Rhetoric and Cultural Studies.

180 Introductory Audiology (SPHS 123) (3).

182 Applied Phonetics (SPHS 140) (3). Prerequisite, COMM 181 or equivalent. A study of the acoustic, articulatory, auditory, and physiological aspects of the production of speech.

183 Anatomy and Physiology of the Speech and Hearing Mechanism (SPHS 170) (3). Anatomy and physiology of the speech and hearing mechanisms.

184 Introduction to Communication Disorders (EDSP 143) (3). An introduction to communication disorders.

Curriculum of Comparative Literature

EDWARD DONALD KENNEDY, Chair

Professors

Associate Professors
Alice A. Kuzniar, Diane R. Leonard, José Manuel Polo de Bernabé.

Assistant Professor
Eric S. Downing.

Professors Emeriti

The Curriculum of Comparative Literature explores the major works of Western literature, as well as interrelations among national literatures, thereby enabling students to acquire a broad, liberal education. Sophomores planning to major in Comparative Literature should take the two-semester Great Books course (CMPL 21 and 22) as part of their General College requirements.

An undergraduate major consists of eight courses: two literature courses in a foreign language (beyond the General College foreign-language requirement); two courses in Classics; and four courses taught within the Curriculum of Comparative Literature, to be chosen in consultation with the undergraduate adviser. CMPL 51, Introduction to Comparative Literature, is strongly recommended as one of the four courses.
Minor in Comparative Literature

The minor in Comparative Literature is available to any undergraduate who has completed CMPL 21 and 22 as part of the General Education requirement or completes the courses during the junior year.

In addition to CMPL 21 or CMPL 22, the minor consists of four additional courses listed or cross-listed in Comparative Literature, with one exception. Courses cross-listed between Comparative Literature and Classics may not be counted for a minor in Comparative Literature by students majoring in Classics.

Undergraduates majoring in Comparative Literature may minor in any department, curriculum, or school in which a minor program is offered. However, the two foreign language literature courses required for the major in Comparative Literature may not also be counted as part of a minor in any of the foreign language departments.

Courses in Comparative Literature for Undergraduates

21 Great Books: Renaissance through Neoclassicism (3). Selected readings from Western literature, including authors such as Virgil, Chrestien de Troyes, Dante, Boccaccio, Rabelais, Cervantes, Milton, and Voltaire. Fall. Downing. Staff. Aesthetic perspective.

22 Great Books: Romanticism through Modernism (3). Selected readings from Western literature, including authors such as Goethe, Austen, Flaubert, Dostoevsky, Ibsen, Kafka, Mann, Faulkner, Marquez, and Morrison. Spring. Polo de Bernabei. Staff. Aesthetic perspective.

51 Introduction to Comparative Literature (3). Familiarizes students with the theory and practice of Comparative Literature. Against a background of classical poetics and rhetoric, explores various modern literary theories, including Russian Formalism, Frankfurt School, Feminism, Psychoanalysis, Deconstruction, New Historicism, and others. All reading in theory is paired with that of literary texts drawn from a wide range of literary periods and national traditions. Fall. Alternate years. Downing. Aesthetic perspective.

81 Philosophy and Literature in the Eighteenth and Nineteenth Centuries (3). The influence of philosophy on literature during the eighteenth and nineteenth centuries in Western Europe, focusing on such figures as Shaftesbury, Pope, Leibniz, Voltaire, Kant, Novalis, Comte, Balzac, Taine, Zola. Philosophical perspective.

83H Literature and Medicine (3). Examines the presentation of medical practice in literature from the mid-nineteenth century to the present. Readings include some medical history, novels, stories, and recent autobiographies of medical training. Spring. Furst.

90 Form and Vision in the Modern Novel (3). A study of modern trends in the structure of the novel, including works by writers such as Proust, Faulkner, Hesse, Woolf, Mann, Robbe-Grillet, and Gide. Leonard. Aesthetic perspective.

92 Women and Work, 1850 - 1900 (3). An explanation of the problems of work for women in the later nineteenth century, drawing on historical and fictional materials to illuminate each other. Furst. Social science perspective.

93 Adolescence in Twentieth-Century Literature (3). An analysis of the literary portrayal of adolescence by major twentieth-century English, American, and European writers, focused on dominant themes and modes of representation. Furst. Aesthetic perspective.

95 Special Topics in Comparative Literature (3). Offered any semester. Staff.


97 Honors Course (3). Required of all students reading for honors in Comparative Literature. Fall. Staff.

98 Honors Course (3). Prerequisite CMPL 97. Required of all students Reading for honors in Comparative Literature. Spring. Staff.

Courses for Graduates and Advanced Undergraduates

Period Courses

140 Reading Course (Var.). Staff.

150 Major Works of Twentieth-Century Critical Theory (3). Prerequisite, two courses in CMPL or graduate status. Comparative study of representative works on literary and cultural theory or applied criticism to be announced in advance. Leonard.

170 The Middle Ages (3). Study of selected examples of Western medieval literature in translation, with particular attention to the development of varieties of sensibility in various genres and at different periods. Alternate years. Kennedy. Aesthetic perspective.

172 Literature of the Continental Renaissance in Translation (3). Discussion of the major works of Petrarch, Boccaccio, Machiavelli, Caetigione, Ariosto, Tasso, Rabelais, Ronsard, Montaigne, Cervantes, and Erasmus. Alternate years. Masters. Aesthetic perspective.

174 The Eighteenth Century Novel (3). English, French, and German eighteenth-century narrative fiction with emphasis on epistolary novel. The relation of the novel to the Enlightenment and its counterpart, the cult of sentimentially, and on shifting paradigms for family education, gender, and erotic desire. Aesthetic perspective. Downing.

175 Romanticism (3). An exploration of the period concept of Romanticism, using selected literary works by such writers as Blake, Wordsworth, Coleridge, Goethe, Novalis, Schlegel, Hugo, Nerval, Chateaubriand. Alternate years. Furst.

176 Realism (3). An exploration of the period concept of Realism through selected works by such writers as George Eliot, Dickens, James, Dostoevsky, Tolstoy, Balzac, Stendhal, Flaubert, Zola. Alternate years. Furst.

177 Naturalism (3). The Naturalist movement in European and American literature of the late nineteenth and early twentieth centuries, focusing on its philosophical, psychological, and literary manifestations in selected plays and novels. Alternate years. Furst.

178 Modernism (3). An exploration of the period concept of modernism in European Literature, with attention to central works in poetry, narrative, and drama, and including parallel developments in the visual arts. Leonard.

Genre Courses

180 Concepts and Perspectives of the Tragic (3). History and theory of tragedy as a distinctive literary genre, and as a more general literary and cultural problem. Authors include Aeschylus, Sophocles, Euripides, Shakespeare, Racine, Goethe; Nietzsche, Wagner, Mann; Samuel I and II, Faulkner. Also engages theorists, ancient and modern. BA Aesthetic perspective. Alternate years. Downing.

181 Aestheticism (3). Aestheticism as a discrete nineteenth-century movement and as a major facet of modernism in literature and literary theory. Authors include Kierkegaard, Baudelaire, Nietzsche, Huysmans, Wilde, Mann, Rilke, Nabokov, Dinesen, Barthes, Sontag. BA Aesthetic perspective. Fall, spring. Downing.
184 The Drama from Ibsen to Beckett (3). The main currents of European drama from the end of the nineteenth century to the present. Includes Chekhov, Strindberg, Pirandello, Lorca, Brecht, Anouilh.


Special Topics Courses

190 Literature and the Arts of Love (3). Love and sexuality in literary works from various historical periods and genres. Authors include Sappho, Plato, Catullus, Properties, Ovid, Dante, Petrarch, Shakespeare, LaClos, Goethe, Nabokov and Roland Barthes. BA Aesthetic Perspective. Downing.

191 Autobiography as a Literary Form (3). The rise and evolution of interest in the self in literary forms from St. Augustine’s to Rousseau’s Confessions through Abelard, Dante, Petrarch, Cellini, and Montaigne. Alternate years. Cervigni.

192 The Fourth Dimension: Art and the Fictions of Hyperspace (3). An exploration of the concept of the fourth dimension, its origins in non-Euclidean geometry, its development in popular culture, and its impact on the visual arts, film and literature. BA Aesthetic perspective. Leonard.

195 Special Topics (3). Offered any semester. Staff.

Cross-listed Courses
CMPL 30 Classical Motifs in World Literature (Classics) (3). Rockford.
CMPL 64 The Classical Background of English Literature (Classics) (3). Smith.
CMPL 94A Interdisciplinary Seminar in Renaissance Studies (History, Romance Languages) (3). Headley and Masters.
CMPL 104 Violence and Religion in Literature (Romance Languages) (3). Bandera.
CMPL 112 Classical, Christian, and Post-Classical Rhetorics (Classics) (3).
CMPL 135 Consciousness and Symbols (Anthropology) (3). Peacock.
CMPL 142 Philosophy in Literature (Philosophy) (3). Smyth.
CMPL 153 Medieval Romance (English) (3). Kennedy.
CMPL 179 Literature of the Americas (English) (3). Whisnant.

Department of Computer Science

STEPHEN F. WEISS, Chair

Professors

Associate Professors
James Anderson, Gary Bishop, James M. Coggins, Prasun Dewan, Kye S. Hedlund, Kevin Jeffay, Dinesh Manocha, Jan F. Prins, David Stotts.

Assistant Professors
Siddhartha Chatterjee, Ming Lin.

Research Professors
Nicholas England, John Poulton, F. Donelson Smith, Turner Whitted.

Research Associate Professor
Anselmo Lastra, Lars Nyland.

Research Assistant Professors
Doug Hoffman, Russell Taylor, Gregory F. Welch, Mary Whitton.

Lecturers
Vernon L. Chi, Timothy L. Quigg, Jeannie M. Walsh.

Adjunct Professors
Hussein Abdel-Wahab, Julian Rosenman.

Adjunct Associate Professors
Raj K. Singh.

Adjunct Assistant Professors
Stephen Aylward, John G. Eyles, Steven Molnar.

Professors Emeriti
Peter Calingaert, Donald F. Stanat

The Department of Computer Science offers instruction and performs research in theory, techniques, and applications of computing. Although primarily a graduate department, it offers courses and academic advice to undergraduates majoring in other programs.

Undergraduate students interested in specializing in computer science should consider the Computer Science Option of either the B.S. in Mathematical Sciences or the B.S. in Applied Sciences. Details are available in the catalog sections for each curriculum and from the curriculum offices.

Students in any field interested in preparing for a graduate program in computer science should consult an undergraduate adviser in the Computer Science Department.

Students who wish to devote serious study to programming should begin by taking either COMP 14 or COMP 15, and continue with COMP 114 and COMP 121. Students should take an introductory programming course in the freshman year. Students with programming experience in any language should consult a Computer Science adviser to determine whether they should start in a more advanced course instead.

Students who wish to use computers vocationally should take one of the introductory courses and one or two more advanced courses. Students planning careers in mathematics or science should consider taking COMP 114 and 121. COMP 171 and 172 are appropriate for students interested in the social sciences or humanities. The department encourages all students who wish to develop the ability to use a personal computer for common applications to take COMP 4. COMP 96 satisfies the Philosophical Perspective requirement in the General College and has no programming prerequisite.
Course Descriptions


14 Introduction to Programming (3). Introduction to computer use. Approaches to problem-solving: algorithms and their design, fundamental programming skills, using Pascal. Students may not receive credit for both COMP 14 and 15. Fall, spring, and summer. J. B. Smith, Hedlund, Coggins, Weiss.

15 Introduction to Functional Programming (3). An introduction to programming in the functional programming style, e.g., using a dialect of LISP. A brief introduction to an imperative language such as Pascal. A first course for prospective majors or students with some programming background. Students may not receive credit for both COMP 14 and 15. Fall. Stanait.

71 Language and Computers (Linguistics 71) (3). Prerequisite, Linguistics 30. Uses simple linguistic problems to introduce students to the use of programming languages especially suited to analyze and process natural language on the computer. No prior programming knowledge is presupposed. BA-level Social Science perspective. Fall. Webeduht.

90 Research in Computer Science (1-3). For advanced majors in the Mathematical Sciences and Applied Sciences curricula who wish to conduct a research project with a faculty supervisor. May be taken repeatedly for up to a total of six credit hours. Staff.

92 Practicum (2-3). Prerequisites, COMP 114, concentration in Computer Science Option of the Curriculum in Mathematical Sciences. Work experience in nonelementary computer science approved by the instructor. The grade, pass or fail only, will depend on a substantial written report by the student and a written evaluation by the employer. Staff.

96 Computers and Society (3). Cultural, social, philosophical, technical, and economic effects of computers. Ethics of technology and computer use. Influence of computers, as paradigms, on world view. Computers and robots as autonomous (human?) beings. Fall, spring, and summer. Walsh, staff. Philosophical perspective.

114 Foundation of Programming (4). Prerequisite, COMP 14 or 15. May not be taken for credit together with COMP 104, 105, 110 or 119. Advanced programming. Program specifications; preconditions; post conditions; loop invariants. Linear data structures, searching and sorting. Algorithms paradigms and analysis. Fall and spring. Stanait, Weiss.

120 Computer Organization (3). Prerequisite, COMP 110 or 114. Data representation, computer architecture and implementation, assembler language programming. Spring. Magio, Hedlund.

121 Data Structures (3). Prerequisites, MATH 81 and COMP 114; corequisite, COMP 121L. The analysis of data structures and their associated algorithms. Lists, stacks, queues, trees, and graphs. Hashing and overflow techniques. Sorting and searching. Fall. Hedlund.

121L Data Structures Laboratory (1). Prerequisite, COMP 114. Corequisite, COMP 121. Introduction to C++ programming in the Unix environment. Classes, object oriented programming, derived classes, inheritance, and virtual functions. Fall. Hedlund.


130 Files and Databases (3). Prerequisite, COMP 120, 121, MATH 81. Placement of data on secondary storage. File organization. Database history, practice, major models, system structure and design. Fall. Stotts, Weiss.


143 TCP/IP Networking and Network Programming (INLS 186) (3). Prerequisites, INLS 161, 184, COMP 142. In-depth examination of the algorithms underlying the TCP/IP Internet protocol suite, including performance issues and operational problems. Introduction to client/server network programming (in C/C++) using the standard BSD sockets interface.


145 Software Engineering Laboratory (3). Prerequisites, COMP 120, 121. Organization and scheduling of software engineering projects, structured programming, and design. Each team will design, code, and debug program components and synthesize them into a tested, documented program product. Spring. Coggins, Stotts.

170 Applications of Natural Language Processing (INLS 170) (3). See course listings for School of Information and Library Science for details.

171 Natural Language Processing (INLS 115) (3). Prerequisite, COMP 14 or 15. Statistical, syntactic, and semantic models of natural language. Tools and techniques needed to implement language analysis and generation processes on the computer. Fall. Alternate years. Weiss, J. B. Smith.

172 Information Retrieval (INLS 172) (3). See course listings for School of Information and Library Science for details.


190 Topics in Computer Science (1-3). Prerequisite, permission of instructor. This course will have variable content and may be taken multiple times for credit. Fall or spring. Staff.
Department of Dramatic Art

MILLY S. BARRANGER, Chair

Professors

Associate Professors
Raymond E. Dooley, Adam N. Versényi, Ann McKay Coble.

Adjunct Associate Professor
Judith L. Adamson.

Adjunct Assistant Professors
Kenneth J. Lewis, Michael J. Rolleri.

Visiting Assistant Professors
Karen Blansfield, Gregory Kable.

Adjunct Instructor
Penny P. Smith.

Lecturer
Susanna C. Rinehart.

Guest Lecturers
Carroll A. Kyser, Saura Bartner.

Visiting Lecturers
David A. Adamson, Jeffrey B. Cornell, Julie K. Fishell, Tom Huey.

Theatre Specialist in Theatre Management
Donna B. Heins.

The Department of Dramatic Art of The University of North Carolina at Chapel Hill is one of the oldest university drama departments in the country. It counts among its alumni distinguished theatre, film, and television artists, literary figures, and leaders in educational theatre.

The Department of Dramatic Art faculty and staff offices, classrooms, studios, rehearsal hall, scenery and costume shops are located in the Center for Dramatic Art on Country Club Road. The undergraduate program, housed in the Center for Dramatic Art, is part of the general liberal arts curriculum within the College of Arts and Sciences and the General College. Within the context of liberal arts studies, the dramatic art student has the opportunity to learn about theatre in the classroom and to experience plays on stage. PlayMakers Repertory Company (a full-season professional Equity theatre) provides opportunities for students to associate with and learn from theatre professionals active in regional and commercial theatre. Undergraduate departmental productions are produced in two theatres on campus: the Elizabeth Price Kenan theatre, a 280-seat flexible space, and the Playmakers Theatre, a 285-seat proscenium house. In addition, studios in the Center for Dramatic Art are available for performance work.

Students majoring in dramatic art receive a Bachelor of Arts degree. Students acquire a broad basis for understanding and appreciating theatre as a cultural and artistic process. The program also provides opportunities for students to learn and develop basic skills in the various areas of theatre performance and production. During the process, students develop discriminating attitudes towards quality in artistic theory and theatre practice. The department, moreover, has proved especially suited to students pursuing future professional or academic careers in theatre. In addition, the dramatic art major provides a suitable background for work in related fields such as teaching, advertising, journalism, public relations, communications, arts management, business, and arts institutions. Because the dramatic art major exists within a liberal arts curriculum, course work and classroom assignments are always a first priority. Nevertheless, students should realize that production work is an important commitment. The faculty realizes that productions make great demands on the time of all participants: actors, stage managers, designers, directors, technicians, and crews. Students naturally place a high priority on work presented to the public. However, students must realize that in a Bachelor of Arts degree program such commitments are extra activities beyond classroom responsibilities. They must, therefore, thoroughly organize their time and commitments when obligating themselves to any production so as not to diminish classroom work in quality or quantity. The faculty encourages all students to develop the discipline necessary to fulfill their classwork and production activities.

The dramatic art department provides undergraduates with opportunities to study and engage in live theatre with other students, a professional faculty, and visiting professional artists. Auditions for departmental productions are open to all registered students within the University. Dramatic art majors are required to attend departmental and PlayMakers productions as part of their total program.

Core Curriculum

The Department of Dramatic Art offers a broad curriculum leading to the Bachelor of Arts degree. This program is centered in a required core of six courses (Drama 50, 64A, 64B, 81, 82, and 83), and four electives for the ten-course major. Drama 20 (Play Analysis) is a prerequisite to the dramatic art major, and does not count toward the ten-course major. Majors must take Drama 20 prior to enrolling in Drama 50, 62, 80, 81, 82, or 83. At present the College of Arts and Sciences permits a total of forty hours to count toward graduation in a student's major field. This allows a student to choose as many as six additional courses and concentrate on a particular field of interest within the major.

The department also offers an honors program (Drama 99) in scholarly or creative projects for eligible students. Students with an overall G.P.A. of 3.2 at the end of their junior year are eligible to participate in the honors program in dramatic art. The designation of "honors" or "highest honors is
conferred on majors who complete and successfully defend a course of study or creative project within the framework of Drama 99. For additional information contact the departmental honors adviser.

Students and prospective students may consult the director of undergraduate studies in The Center for Dramatic Art on Country Club Road.

Minors in Dramatic Art

For interested students the department offers academic minors in dramaturgy and theatrical design. No production and/or performance courses may count toward the minor and minor courses may not be used to satisfy Arts and Sciences perspective requirements.

In the dramaturgy minor, the focus is on dramatic literature, theatre history, dramaturgy, and critical writing. The undergraduate minor in Dramatic Art (dramaturgy) consists of four courses:

**DRAM 20 Play Analysis and three courses selected from the following:**

- DRAM 81 Literature/History I
- DRAM 82 Literature/History II
- DRAM 83 Literature/History III
- DRAM 84 Dramatic Theory and Criticism
- DRAM 86 Latin American Theatre
- DRAM 150 Shakespeare in the Theatre

Given the interest of nonmajors in design courses, a second academic minor in Dramatic Art (theatrical design) includes the following options from courses presently in the curriculum:

**DRAM 20 Play Analysis and three additional courses selected from among the following:**

- DRAM 165 Sound Design
- DRAM 166 Scene Design
- DRAM 167 Costume Design I
- DRAM 168 Lighting Design
- DRAM 169 Costume Design II
- DRAM 170 Survey of Costume History
- DRAM 171 Non-Western Costume History
- DRAM 175 Period Styles for the Theatre
- DRAM 176 Advanced Scene Design

Course Descriptions

**15 Elements of the Drama (3).** A survey of plays from the Greeks to the present, analyzed through such elements of the dramatic text as action, character, structure, and language. Fall and spring. Blansfield, Kable. General College perspective.

**16 Elements of the Theatre (3).** A survey of the interrelationships of acting, directing, designing, and playwriting through the study of major periods of theatrical expression and representative plays. Fall and spring. Rinehart, staff. General College perspective.

**20 Play Analysis (3).** Prerequisite to 50, 62, 81, 82, and 83 for majors. Development of the skill to analyze plays for academic and production purposes through the intensive study of representative plays. Fall and spring. Kable, Versenyi. General College aesthetic perspective.

**30 Stage Makeup (3).** A laboratory course exploring the principles and applications of stage makeup. Also applicable to film and television. May be repeated for credit. Staff.

**35 Acting for Nonmajors (3).** Introduction to basic processes and techniques of acting for the stage. Fall and spring. Staff.

**36 Acting for Nonmajors (3).** Prerequisite, Dramatic Art 35. A further exploration of basic processes and techniques of acting for the stage. Fall and spring. Kable, staff.

**40 Voice Training I (3).** Fundamental principles underlying the effective use of the voice and speech in performance. Fall. Raphael, Staff.

**41 Voice Training II (3).** Prerequisite, Dramatic Art 40. A continuation of Dramatic Art 40. Spring. Alternate years. Staff.

**50 Beginning Acting for the Major (3).** Prerequisite, Dramatic Art 20. Introduction to basic acting tools with emphasis on the playing of actions and the pursuit of an objective prompted by personalized given circumstances. Performance work drawn from short scripted and improvised scenes. Fall and spring. Fishell, Cornell, staff.

**51 Intermediate Acting for the Major (3).** Prerequisite, Dramatic Art 50. Building on the foundations established by DRAM 50, a deeper exploration of the use of actions and given circumstances required by specific texts, with emphasis on contemporary realism. Fall and spring. Rinehart.

**52 Advanced Acting for the Major (3).** Prerequisites, Dramatic Art 51. Development of the actor's technique in verse drama with emphasis on scene and text analysis as guidelines for actions, characterization, and given circumstances. Scene and monologue work drawn from the works of Shakespeare. Fall and spring. Staff.

**53 Acting and the Camera (3).** Prerequisite, permission of instructor. The process of acting and its relationship to the technical and artistic demands of television/film production. Problems of continuity and out-of-sequence filming. Concentration and thinking on camera. Spring. Dooley, staff. Arts and Sciences aesthetic perspective.

**56 Movement for the Actor (3).** Introduction to physical training. Individual/group exercises explore relaxation, breath, concentration, flexibility, and imaginative response that become physical tools for acting. May include stage combat, juggling, mime, improvisation, games, yoga. Fall and spring. Staff.

**57 Movement for the Actor II (3).** Drama 56 or permission of instructor. Development of balance, flexibility, strength, focus, grace, and precision through martial art of Tai Chi Chuan. Emphasis on applying Tai Chi principles to acting. Chinese philosophical bases for Tai Chi explored. Alternate years. Turner.

**60 Stagecraft (3).** A general survey of the materials, equipment, and processes used in technical theatre. Fall and spring. Lewis, staff.

**62 Directing (3).** Prerequisite, Dramatic Art 20. An introductory course in the principles of stage directing: analysis for concept, organization of production, and methodology of staging. Spring. Hammond, staff.

**64A Technical Methods (Var).** Introduction to the skills and techniques used in the design and execution of plans for scenery, lighting and costume for a production. Course includes lectures and laboratory. May be repeated once for credit. Required for the Dramatic Art major. Fall and spring. Staff.

**64B Technical Methods Practicum (Var).** Prerequisite, DRAM 64A or permission of instructor. Practicum in production with PlayMakers Repertory Company in costuming, scenery, and lighting. May be repeated for credit (six hours total). Fall and spring. Lewis. Must be repeated once for the Dramatic Art major for total of 4.0 credits.

**65 Dramatic Art Projects (3).** Limited to juniors and seniors majoring in dramatic art. Permission of department required. Intensive individual work in major areas of theatrical production: design, technical, directing, acting, playwriting, management. May be repeated for credit. Fall and spring. Staff.

**81 Theatre History and Literature I (3).** Survey of theatre practice and writing from the Greeks to 1700. Fall. Barranger, Versenyi. BA-level perspective.

83 Theatre History and Literature III (3). Survey of theatre practice and writing from 1930 to the present. Alternate years. Barranger, Versényi. BA-level perspective.

84 Studies in Dramatic Theory and Criticism (3). Seminar in dramatic theory and criticism with emphasis on the modern period. Topics to be selected by the instructor. May be repeated for credit. Alternate years. Kable, Blansfield. BA-level perspective.

86 Latin American Theatre (3). This course explores the historical and aesthetic development of Latin American theatre, focusing on particular factors that distinguish this theatre from the Western European tradition. Alternate years. Versényi. BA-level perspective.

99 Honors Project in Dramatic Art (Var.). Prerequisite, 3.2 cumulative grade point average and permission of departmental honors adviser. The completion of a special project (essay or creative endeavor), approved by the department, by a student who has been designated a candidate for undergraduate honors. Fall and spring. Dooley.

100 Technical Direction (3-6). Prerequisite, Dramatic Art 64, Section 2 or equivalent technical practice in theatre production. Also permission of instructor. A study of technical and engineering problems in theatre production and standard theatrical drafting and construction conventions. Fall and spring. Lewis.

101 Stage Management (3). A study of the basic principles and practices of modern stage management. Permission of department required. Fall and spring. Staff.

150 Shakespeare in the Theatre (3). A study of the literary, stage history, and production problems of representative plays. Fall and spring. Dooley, Hammond. BA-level perspective.

155 Playwriting (3). Permission of department required. A practical course in writing for the stage with studio productions of selected works. May be repeated for credit. Spring. Huey. BA-level perspective.

157 Playwriting (3). Prerequisite, at least one semester of Dramatic Art 155. A practical course in writing for the theatre. Alternate years. Staff.

165 Sound Design (3). The study of general principles of sound design for the theatre. Theory and application of sound design techniques for the stage, including script analysis, staging concepts, special effects, sound plots, and technology. Spring. Lewis.

166 Scene Design (3). Permission of instructor required. General principles of visual design as applied to scenery for the theatre. Instruction in standard techniques of planning and rendering scene design. Fall. Coble. BA-level perspective.

167 Costume Design I (3). Prerequisite, permission of instructor required. Studies and practicum in play analysis and costume design for the theatre. Instruction in techniques of planning and rendering costume design. Fall. Staff. Spring. Coble. BA-level aesthetic perspective.

168 Lighting Design I (3). Prerequisite, Dramatic Art 100 or equivalent training in drafting. General principles of lighting design as applied to the performing arts. Theory and instruction in standard techniques of lighting for the stage. Spring. Lewis.

169 Costume Design II (3). Prerequisites, Dramatic Art 167 and permission of instructor. Practicum in costume design for the theatre focusing on the requirements of professional theatre production and alternative costume design solutions. Spring. Alternate years. Coble.

170 Survey of Costume History (3). A survey of historic costume forms from Ancient Egypt to the present time. Fall and spring. Owen. BA-level Western historical perspective.

171 Non-Western Costume History (3). A survey of the traditional costume forms from the African Continent, in Asia (China, Japan, India), and on the Arabian Peninsula. Spring. Owen. BA-level Non-western/comparative perspective.

172 Special Topics in Costuming (Var. 1-3). Course includes subjects in the aesthetics of costume design and history as related to the organization and construction of theatrical costumes. May be repeated for credit. Spring. Alternate years. J. Adamson, staff.

173 Costume Construction I (Var. 1-3). Prerequisite, permission of instructor. Instruction in pattern making through flat drafting and draping, as well as fitting and construction techniques as applicable to theatrical costuming. Fall. J. Adamson.

174 Costume Construction II (Var. 1-3). Prerequisite, DRAM 173, or permission of instructor. Continuation of instruction and construction techniques begun in Drama 173. Spring. J. Adamson.

175 Period Styles for the Theatre (3). A study of visual, cultural, and social styles through history as the forms developed, and as they relate to stylistic production for the theatre. Spring. Coble. BA-level western historical perspective.

176 Advanced Scene Design (3). Prerequisite, DRAM 166 or permission of instructor. Advanced study of the principles and practice of designing scenery for the theatre. Fall. Alternate years. Coble. BA-level aesthetic perspective.

177 Principles of Design (3). Studies and practicum in the principles of design applied to designing for the stage, with emphasis on the principles of unity between scenery, costume, and lighting. Fall. Coble. BA-level aesthetic perspective.

185 Period Styles for Production (3). A study of the historical development of Western minor arts and the ramifications of reproducing them for the theatre. Spring. Alternate years. Coble. BA-level Western historical perspective.

190 Theatre Management (3). Practicum in theatre management procedures and business of the theatre involving box office, audience development, research, publicity, operational, and contract procedures in regard to artists, technicians, managers, and producers. Students actively engage in management areas of the PlayMakers Repertory Company and productions of the Department of Dramatic Art. Fall. Heins.


192 Special Studies (Var. 0.5-3). Permission of undergraduate adviser. Credit for performance and/or production experience in Department of Dramatic Art productions, including PlayMakers Repertory Company. A minimum of fifteen hours per week is required during the rehearsal period and a faculty evaluation at the close of the production. May be repeated for credit. Fall and spring. Dooley, J. Adamson, Rolleri.

194 Professional Theatre Laboratory (3-12). Individual programs or internship in acting, directing, design, management, and playwriting under the guidance of professional practitioners in conjunction with the PlayMakers Repertory Company or other professional theatre organizations. Open only to advanced students with permission of the department chair. Offered as required. Staff.
Curriculum in Ecology

BRUCE P. WINTERHALDER, Chair

Professors

Associate Professors
David R. Butler, John W. Florin, Paul W. Leslie, Katherine A. Murphy, Seth R. Reice, Peter J. Robinson.

Assistant Professor
Thomas M. Whitmore.
Research Professor
Richard E. Bilborow.

Professors Emeriti

The Undergraduate Environmental Minor is administered by the Curriculum in Ecology. The minor is available to all students in the College of Arts and Sciences, regardless of their major field. It consists of five courses as follows.

Core Courses
All students in the Environmental Minor will take two Environmental Core Courses designed to give them a grounding in the scientific and societal dimensions of environmental issues, problems, and the tools for their solution. These courses have already been approved by the appropriate college committees.

ECOLOGY 35: INTRODUCTION TO ENVIRONMENT AND SOCIETY (4 hrs)
ECOLOGY 36: INTRODUCTION TO ENVIRONMENTAL SCIENCES (4 hrs)

Areas of Concentration
Each student will select one of two areas of concentration for further course work. These will be Environmental Sciences and Environmental Studies. The students will choose three more courses within either Area of Concentration, including at least one from each of the designated topics within their area (as follows):

Environmental Sciences
1. Physical or Geological Context
2. Ecological Sciences
3. Interdisciplinary Analysis of Environmental Systems

Environmental Studies
1. Social and Cultural Analysis
2. Policy Analysis and Environmental Management

Additional Regulations
No more than two of the three additional courses (beyond the Environmental Core Courses) may be from a single department.
No courses in the student’s major department will be counted toward the Environmental Minor.
Both of these regulations are designed to guarantee the interdisciplinary content of the Environmental Minor.
The courses fulfilling the additional course requirements follow:

Environmental Sciences Area
1. Physical or Geological Context
   ENVR 122, 123, 132, 133
   GEOG 10, 11, 58, 110, 114, 116
   GEOL 18, 41, 43, 45, 48, 56, 162, 164, 165
   MASC 101, 103, 105, 106, 138, 144, 151, 153

2. Ecological Sciences
   BIOL 54, 132, 142, 145, 146, 151, 185, 186
   ENVR 134
   GEOG 144
   MASC 104, 138

3. Interdisciplinary Analysis of Environmental Systems
   BIOL 143, 147
   ENVR 51, 158
   GEOG 12, 70, 173, 177, 191, 192
   MASC 101, 123, 125, 136, 138, 140, 152, 153

Environmental Studies Area
1. Social and Cultural Analysis
   AFAM 66, 121
   ANTH 43, 62, 138, 139
   GEOG 132, 134, 145, 150, 157
   FOLK 193
   LSRA 40

2. Policy Analysis and Environmental Management
   ANTH 124
   COMM 64
   ECOL 190
   ECON 111, 163
   ENVR 153
   GEOG 30
   HIST 131, 172
   PLAN 94A
   POLI 173, 179
Course Descriptions

35 Introduction to Environment and Society (4). Human-environment issues will be considered using key analytical concepts from the social sciences (including ethics, policy, and management). Issues will be explored in their full extent and historical depth. Three lecture hours and one recitation hour a week. Fall and spring. Staff. General College social science perspective.

36 Introduction to Environmental Sciences (4). This course introduces the techniques used to analyze the processes of creating, maintaining, and modifying the environment, and integrates the unique perspectives of the individual scientific disciplines involved. Three lecture hours and one recitation hour a week. Fall, spring. Staff. GC natural science perspective.

The curriculum also offers the following two advanced courses that explore interdisciplinary approaches to ecology:

Courses for Graduates and Advanced Undergraduates

190 Conservation and Sustainable Development (3). Recommended for upper-level undergraduates and graduate students. This course integrates conservation biology and environmental economics in the determination of development policies. It addresses issues such as: what should we conserve? What is the meaning of sustainable development? Can it be achieved? Fall. Staff.

199 Current Issues in Ecology (3). Prerequisites, previous course work in ecology and permission of instructor required for non-ecology graduate students. Recommended for upper-level undergraduates and graduate students. This course examines varying topics focusing on interdisciplinary problems facing humans and/or the environment. Spring. Staff.

Department of Economics

DAVID K. GUILKEY, Chair

Professors

Associate Professors

Adjunct Associate Professor
Rachel A. Willis.

Assistant Professors
Donna B. Gilleskie, Miwako Hagiwara, Miguel A. Herce, Koleman S. Strumpf.

The Department of Economics offers courses leading to a B.A. degree with a major in economics through the College of Arts and Sciences. The M.S. and Ph.D. degrees in economics are offered through the Graduate School. Courses in economics are elected by and/or required of students in other departments and schools.

Undergraduate Major

Opportunities for Economics Majors: The courses leading to a B.A. degree with a major in economics comprise a large area of inquiry into the problems and structure of the economic segment of society. The curriculum available provides the opportunity to achieve one or more of the following objectives.

A. General education for intelligent citizenship with special emphasis upon the development of the understanding of the principles and problems of modern economic life.

B. Preparation for private employment. In pursuing this objective, supplementary courses in business administration (especially accounting courses) may be selected and integrated with the student’s program.

C. Preparation for governmental employment.

D. Preparation for graduate programs in economics, business administration, international studies, law, health and hospital administration, city planning, public policy, and other fields.

E. Specialized combination undergraduate programs permitting double majors and interdisciplinary studies.

Requirements

For a B.A. degree with a major in economics:

A. Students should complete the work of the General College, including at least one calculus course (Mathematics 22 or 31 is recommended; Mathematics 16 is not acceptable). Economics 10 should be taken, with a grade of C or better. Economics 70 may be taken after completion of a calculus course.

B. In the College of Arts and Sciences a minimum of twenty courses, or sixty semester hours, must be completed in accordance with the following distribution:

1. At least seven courses in economics, in addition to Economics 10, are required. They must include Economics 101 and 132 (and Economics 70, if not taken while in General College). However, Economics 9, 36, 59, 71, 100, 130, 140, 145, and 190 cannot be counted among the seven required economics courses. A grade of C or better must be attained in at least six of the seven major courses. (NOTE: One exception to these rules is completion of Statistics 23 and Business 24 meets the Economics 70 requirement, although seven economics courses in addition to Economics 10 must still be taken in this case.)

a. For majors in the department’s Honors Program the minimum is eight economics courses rather than seven courses, in addition to Economics 10. The same provisions apply to these courses as in A. above, except that Economics 98 and 99 must constitute two of the eight courses.
b. At least one course in the major must be an "advanced course." Courses presently eligible for fulfilling this requirement are Economics 99, 142, 148, 162, 170, 180, 181, 182, 183, 185, and 195.

Maximum Number of Economics Courses: A major may offer as many as thirteen courses in economics, or forty hours, for credit toward a B.A. degree.
2. Four upper-level Arts and Sciences perspective courses.
3. Sufficient free elective courses to reach the 120 credit hours required for graduation.

Program for Honors Work: A student may, as a result of distinguished work, be awarded a degree with honors or highest honors. The details of this program are available at the departmental office.

NOTE: Economics 10 or equivalent is prerequisite to all courses numbered above 90. In addition, University graduation credit will be given for only one in each of the following sets of courses:
(1) Economics 100 and 101
(2) Economics 130 and 132
(3) Economics 130 and 185
(4) Economics 135 and 138
(5) Economics 94A, 140, and 141
(6) Economics 145 and 147
(7) Economics 190 and 194

Course Descriptions
9 Freshman Seminar in Economics (3). Discussion of economic topics of current interest for students with little or no background in economics. Fall or spring. Staff.
10 Introduction to Economics (3). Introduction to fundamental issues in economics including competition, scarcity, opportunity cost, resource allocation, unemployment, inflation, and the determination of prices. Fall and spring. Staff.
36 Economic History of Western Europe (3). Main features of the emergence and expansion of capitalism since 1500. Spring. Gallmann.
59 Introduction to the History of Economic Thought (3). Introduction to the development of economic thought from the Mercantilists, through Smith and the Classicists, Marx, the Neoclassicists to Keynes. Spring. McFarland.
70 Elementary Statistics (3). Sources and collection of data, tabular and graphic presentation, averages, dispersion, time-series, correlation, index numbers, reliability of statistics, and tests of significance. A student may not receive credit for this course after receiving credit for Business 24. Fall and spring. Staff.
91 Women and Economics (W/ST 91) (3). Survey of women's time allocation patterns, labor force participation trends, earnings, occupational selection, and economic history using neoclassical economic analysis. Examinations of contemporary issues such as pay equity, affirmative action. Spring. Willis.
92 Current Economic Problems (3). Analysis and discussion of current policy issue using an economic framework. Topics such as tax reform, environmental controls, announced prior to each offering. Fall or spring. Staff.

94A Public Finance and Public Choice (3). Application of optimization principles to individual choice in various public finance situations. Alternative means of aggregating these preferences within a public choice framework are explored. Students may not receive credit for both Economics 94A and 140 or both Economics 94A and 141. Fall or spring. Wilde.
98 Honors Course (3). Prerequisite, permission of instructor. Readings in economics and beginning of directed research on an honors thesis. Required of all candidates for graduation with honors in economics. Fall and spring. Staff.
99 Honors Course (3). Prerequisite, Economics 98 and permission of instructor. Completion of an honors thesis under the direction of a member of the faculty. Required of all candidates for graduation with honors in economics. Fall and spring. Staff.
100 Microeconomics Theory and Applications (PUPA 100) (3). Analysis of the ways in which consumers and business firms interact in a market economy. Students may not receive credit for both Economics 100 and 101. Fall and spring. Staff.
101 Intermediate Theory: Price and Distribution (3). Prerequisites, Economics 10 and Mathematics 22 or equivalent. The determination of prices and the distribution of income in a market system. Students may not receive credit for both Economics 100 and 101. Fall and spring. Staff.
111 Resource and Environmental Economics (3). Prerequisite, Economics 100 or 101 or permission of instructor. Overview of the economic theory and analytical tools involved in understanding environmental and resource problems. Focus on economic issues involved in: air and water pollution; natural environments; exhaustible resources and energy. Fall or spring. Staff.
120 Location and Space Economy (3). Prerequisite, Economics 100 or 101 or permission of instructor. The course is designed to provide the student with an understanding of the effects of space on economic and social activity. Fall. Staff.
122 Urban Economics (3). Prerequisite, Economics 100 or 101 or permission of instructor. The course will explore the urban problems facing us today; unorganized growth, disparate land uses, fiscal crisis, the ghetto poverty, employment, housing, transportation inadequacies, and crime. Fall or spring. Staff.
130 Macroeconomics: Theory and Policy (3). Prerequisite, Economics 10. Analysis of economic theory and government policy as they relate to such national economic variables as output, income, employment, inflation, investment, and budget and trade deficits. Students may not receive credit for both Economics 130 and 132 or both Economics 130 and 185.
132 Intermediate Theory: Money, Income and Employment (3). An introduction to contemporary macroeconomic concepts and analysis. Topics include the level, fluctuations, and growth of national income, and monetary and fiscal policies designed to achieve economic goals. Students may not receive credit for both Economics 130 and 132. Fall and spring. Staff.
135 Economic History of the United States (3). Main features of the American economy: colonial times to the present. Fall and spring. Gallmann, Orsagh, Rhode.
137 Revisionist Economic History (3). Prerequisite, permission of instructor. A critical evaluation of recent controversies in economic history, concentrating on methods but attending as well to the main reinterpretations offered by economic historians. Fall. Gallmann.
138 Economic Development of the United States (3). Prerequisites, Economics 101 and 132. Students may receive credit for either Economics 135 or Economics 138 but not for both. This course parallels Economics 135 but is designed for students with a higher level of theoretical preparation. Fall. Gallmann, Orsagh, Rhode.
140 Introduction to Public Finance (3). Principles and practices of the budgetary activities of American governments — federal, state, and local. Students may not receive credit for both Economics 140 and 141 or both Economics 94A and 140. Fall. Akin, Wilde.
141 Analysis of Public Finance (3). Prerequisite, Economics 100 or 101. Application of economic analysis to the taxing and spending functions of government. Students may not receive credit for both Economics 140 and 141 or both Economics 94A and 141. Fall and spring. Akin, Strumpf, Wilde.

142 Advanced Topics in Public Finance (3). Prerequisite, Economics 140 or 141. Selected topics in taxation, public expenditures, and governmental transfer programs. Fall or spring. Akin, Strumpf, Wilde.

145 Public Policy Toward Business (3). Prerequisite, Economics 100 or 101. Industry structure and its relation to performance; market imperfections; description and analysis of antitrust and regulation. Students may not receive credit for both Economics 145 and 147. Fall and spring. Biglaiser, McFarland, Stewart.


150 Introduction to Health Economics (3). Prerequisite, Economics 100 or 101. An economic analysis of the production and distribution of health care. Fall. Akin.

151 Transportation Economics (3). Application of economic principles to transportation topics such as pricing and regulation, the public provision of transport services, the relationship between transport cost and location. Fall or spring. Tauchen.


159 History of Economic Doctrines (3). A survey of the fundamental forms of economic thought from the scholastics through Keynes. Fall. McFarland, Tarasco.

160 European Economic Integration (3). Prerequisite, Economics 100 or 101 or permission of instructor. Economic and political aspects of European economic integration, the EC customs union, barriers to integration, convergence vs. divergence of inflation rates and income levels, enlargement of the EC. Fall or spring. Black.

161 International Economics (PWAD 161) (3). Prerequisite, Economics 100 or 101. An introduction to international trade, the balance of payments, and related issues of foreign economic policy. Fall and spring. Black, Conway, Field, Hagivara.

162 Topics in International Economics (3). Prerequisite, Economics 161. Analysis and interpretation of selected problems and policy issues. Content varies, but attention is given to such topics as trade barriers, trade patterns, floating exchange rates, and international monetary policy. Fall and spring. Conway, Darity, Field, Hagivara.

163 Economic Development (3). Prerequisite, Economics 100 or 101 or permission of instructor. An introduction to the economic characteristics and problems of the less developed countries and to the theories and policies applicable to the developing economy. Fall and spring. Conway, Darity, Field.

165 Economics of Population (3). Analysis of economic-demographic interrelations including demographic analysis, population and economic growth and development, economic models of fertility and migration, and population policy. Fall or spring. Turchi.

166 Crime and Criminal Justice: An Economic Approach (3). Prerequisite, Economics 10 or permission of instructor. The application of economic theory and methodology to the determination of criminal behavior and the societal response to that behavior. Fall. Osaghi.


168 Principles of Soviet and Post-Soviet Economic Systems (3). Prerequisite, Economics 100 or 101. Study of the principles, design, organization, and performance of state-controlled economies relying on planning or regulated markets, with an emphasis on continuity and post-communist transition. Fall. Rosefield.

169 Western and Asian Economic Systems (ASLA 169) (3). Prerequisite, Economics 100 or 101. Policy seminar on the systemic factors distinguishing Western economies from their rivals in the former Soviet bloc and Asia, focused on conflict resolution and global integration. Fall. Rosefield.

170 Economic Applications of Statistical Analysis (3). Prerequisite, Economics 70 or equivalent. Statistical methods in the construction, estimation, testing, and application of linear economic models; computer programs and interpretation of their output in empirical analysis of common economic theories. Fall and spring. Guilkey, Homo, Murphy.

180 Economics of the Family (3). Prerequisite, Economics 101 or permission of instructor. Analyzes the family with respect to the marriage market, divorce, reproductive behavior, the baby black market, intra-family allocation of goods, time and power, labor supply, migration, and family policy. Fall and spring. Turchi.

181 Topics in Microeconomic Theory (3). Prerequisite, Economics 100 or 101. A treatment of topics in microeconomic theory not normally covered in Economics 100 or Economics 101. Spring. Friedman, Mezzetti, Tauchen.

182 Topics in Macroeconomic Theory (3). Prerequisite, Economics 130 or 132. This course will emphasize theoretical and empirical topics such as growth, labor search, Phillips curves, stagnation, and optimal government policy. Fall. Salem.

183 Game Theory in Economics (3). Prerequisites, Economics 101 and Math 30 or permission of instructor. Topics in noncooperative and cooperative game theory are covered, along with a selection of applications to economics in areas such as international organization, international trade, public finance, and general equilibrium. Fall. Friedman, Mezzetti.

185 Financial Markets and Economic Fluctuations (3). Prerequisite, Economics 132. An examination of financial institutions and markets, their role in economic conditions and the use of macroeconomic policies in affecting those conditions. Students may not receive credit for both Economics 130 and 185. Fall and spring. Conway, Crew, Parke, Salem.

190 The Economics of Labor Relations (3). Prerequisite, Economics 100 or 101. An economic analysis of workplace issues, including worker quits, layoffs and unemployment, discrimination and affirmative action, and the setting of pay, fringe benefits, and working conditions. Students may not receive credit for both Economics 190 and 194. Fall and spring. Blau, Willis.


194 Labor Economics (3). Prerequisite, Economics 101. An introduction to the field of labor economics with emphasis on how the interactions between firms and workers influence wages, employment, unemployment, and inflation. Students may not receive credit for both Economics 190 and 194. Fall and spring. Blau, Mroz, Willis.

195 Topics in Labor Economics (3). Prerequisite, Economics 194. A theoretical and empirical analysis of current social problems involving individuals and their jobs. Included are such topics as poverty, discrimination, and working conditions. Spring. Blau, Mroz.

199 Seminar in Economics (3). Detailed examination of selected problems in economics and a critical analysis of pertinent theories. Fall and spring. Staff.
Department of English

WILLIAM ANDREWS, Chair

Professors

Associate Professors

Assistant Professors

Professors Emeriti
Charles E. Edge, Everett Emerson, S. K. Heninger Jr., C. Carroll Hollis, Byldeen Jackson, George J. Kane, Fred H. MacIntosh, William A. McQueen, Peter G. Phialas, Mark L. Reed, Louis D. Rubin Jr., H. Maxwell Steele, Albrecht B. Strauss, William S. Wells.

Prerequisites
English 11 and 12 are prerequisite to all other English courses unless exempted by placement examination. Transfer students majoring in English may appeal this prerequisite by writing the department chair.

Majors in English in the College of Arts and Sciences
A student must have a grade of C or better in at least eighteen semester hours in courses numbered 30 or above.

Majors in English in the School of Education
A student who is interested in teaching English in the public high schools should consult the School of Education for information on the program leading to teacher certification. (See "School of Education" in Part III.) The English requirements are:
(a) English 20, 21, 30 or 31, 36, 38, 58, 84 or 85, Speech 41;
(b) one of the following: English 51, 52, 54, 60, 64, 65, 66, Comp. Lit. 21;
(c) one of the following: English 43, 72, 73, 78, Comp. Lit. 22;
(d) two of the following: English 80, 81, 82, 83**;
(e) one elective in English.
A student must have a grade of C or better in at least eighteen semester hours in the major, and must have an overall average of C or better in all courses taken for the major.

The Creative Writing Program
The Creative Writing Program is organized in two sequences—fiction and poetry. Work in the lower numbered classes is essential to the understanding of the techniques of writing and the language of criticism used in the advanced courses. Therefore, English 23W or 29W is a requirement for any student wishing to take an advanced workshop in fiction. English 23W is open to anyone without permission of an instructor.

English 25W or 29W is the course required of anyone wishing to take advanced poetry workshops and is open to anyone without permission of an instructor. A permission slip from the director of creative writing is a prerequisite for admission to all advanced courses: English 34, 34P, 35, 35P, 99A, 99B. (English 47W, a study in stylistics, is not part of the sequences and may be taken at any time without special permission.)

Minor in Creative Writing
The Department of English offers an undergraduate Minor in Creative Writing consisting of fifteen hours chosen from the following courses: 23W, 25W, 29W, 34, 34P, 35, 35P, 99A, 99B.

Completion of a minor in Creative Writing is contingent on the student's successful advancement through the sequence. Note that enrollment in all courses beyond the introductory level is by permission only. The student should also note that a minor may have to be earned in any combination of Creating Writing courses and does not necessarily have to include senior honors.

Students would take a sequence in either fiction or poetry, from the introductory level (23W, 25W, 29W), through intermediate (34, 34P) and advanced (35, 35P) workshops, culminating in two semesters of work on the honors project (99A, 99B).
Fiction sequence:
23W (or 29W, Honors), 34, 35, 99A, 99B.

Poetry sequence:
25W (or 29W, Honors), 34P, 35P, 99A, 99B. Any student who did not wish to write the honors project could complete the fifteen-hour requirement of the minor by taking two other courses from the Creative Writing Program's course offerings.

Honors in English and Writing
See College of Arts and Sciences.

Course Descriptions

10 Basic Writing (3). Required of all incoming students with Verbal SAT scores of 400 or lower, except those exempted by placement tests. Provides frequent practice in writing, from short paragraphs to longer papers. When necessary, written assignments may be supplemented by work in the Learning Skills Center. Fall and spring. Staff.

11 English Composition and Rhetoric (3). Required of all students except those exempted by placement tests. Students analyze and create writings that define social, cultural, and professional communities. Eight papers, including research projects. Fall and spring. Staff.

12 English Composition and Rhetoric (3). Required of all students except those exempted by placement tests. Students analyze and create arguments. Eight papers, including a researched argument and an analysis of a work of fiction. Fall and spring. Staff.

20 British Literature, Chaucer to Pope (3). Required of English majors. Survey of Medieval, Renaissance, and Neoclassical periods. Drama, poetry, and prose. Fall and spring. Staff.


22 American Literature, Beginning to 1950 (3). Survey of American literature from beginnings to 1950. Fall and spring. Staff.

23 Introduction to Fiction (3). Freshman and sophomore elective, open to juniors and seniors. Novels and shorter fiction by Defoe, Austen, Dickens, Faulkner, Wolfe, Fitzgerald, Joyce, and others. Fall and spring. Staff.

23W Introduction to Fiction Writing (3). An examination of the basic techniques of fiction, with related writing exercises involving elements such as point of view, characterization, and dialogue. Class discussion of student exercises and readings in short fiction. Fall and spring. Staff.

24 Contemporary Literature (3). Freshman and sophomore elective, open to juniors and seniors. The literature of the present generation. Fall and spring. Staff.

25 Introduction to Poetry (3). Freshman and sophomore elective, open to juniors and seniors. A course designed to develop basic skills in reading poems from all periods of English and American literature. Fall and spring. Staff.

25W Introduction to Poetry Writing (3). In addition to writing poems, students will examine the basic elements of poetry, such as imagery, figurative language, sound repetition, rhythm, and other formal aspects. Fall and spring. Staff.

26 Introduction to Drama (3). Freshman and sophomore elective, open to juniors and seniors. Drama of the Greek, Renaissance, and Modern periods. Fall and spring. Staff.

27 Studies in Literature (3). Freshman and sophomore elective, open to juniors and seniors. Consideration of selected aspects of British and American literature. Topics are chosen by individual instructors; students should consult General College advisors or the English Department for current offerings. Offered infrequently. Staff.

28 Major American Authors (3). Freshman and sophomore elective, open to juniors and seniors. A study of approximately six major American authors drawn from Emerson, Thoreau, Hawthorne, Melville, Whitman, Clemens, Dickinson, James, Eliot, Frost, Hemingway, O'Neill, Faulkner, and others. Fall and spring. Staff.

29 Honors: Types of Literature (3 or 6). Freshman and sophomore honors students only. A continuing study of literary forms, beginning in the fall term and concluding in the spring, with three hours credit for each term. Students should consult the assistant dean for honors in the English Department for current offerings. Fall, Kendall. Thornton. Spring. Raper.

29W Honors: Introduction to Creative Writing (3). Similar to 23W and 25W, but conducted at the honors level. Student should specify either the fiction or the poetry section. Designed for honors program freshmen. Fall and spring. Staff.

30 Professional Writing Curriculum (3). This course addresses the requirements of writing in specific professional fields, such as law, psychology, geology, and public health. Classes are dedicated to studying and practicing the discourse conventions of a single discipline. Prepares students to meet the writing demands of the professional workplace as well as graduate school. Fall and spring. Staff.

31 Advanced Composition and Rhetorical Theory (3). Required of English Education majors. Designed for prospective teachers, the course asks students to write frequently and to survey rhetorical theories and strategies for teaching writing. Spring. Staff.

32 Business Writing (3). Clarity, conciseness, and effectiveness of statement, logical and psychological patterns of organization, adaptation to varying audiences. Memoranda, reports, proposals, letters. Fall and spring. Staff.

33 Scientific Writing (3). Clarity, conciseness, and effectiveness of organizing and presenting facts, principles, concepts, and interpretations; abstracts, proposals, progress reports, final reports, oral reports, professional papers, journal articles. Fall and spring. Staff.

34 Intermediate Fiction Writing (3). Permission of director of Creative Writing. Prerequisite, English 23W or 29W. Extended practice in those techniques employed in introductory course. Extensive writing exercises (15,000-word minimum), with emphasis on dramatic scene. Assignments include the writing of at least one short story. Fall and spring. Staff.

34P Intermediate Poetry Writing (3). Permission of director of Creative Writing. Prerequisite, English 25W or 29W. A workshop in poetry including an examination of selected contemporary poems. Weekly writing assignments. Fall and spring. Seay.

35 Advanced Fiction Writing (3). Permission of director of Creative Writing. Prerequisite, English 34. A continuation of English 34, for students seriously interested in writing fiction. Emphasis on the short story and the novel. Fall and spring.

35N Reading and Writing Creative Non-Fiction (4.0). Prerequisite, Introduction to Fiction or Poetry (23W, 25W, 29W) or permission of instructor. A course in Reading and Writing Creative Non-Fiction, focusing on three of the most important forms in the genre: The Personal Essay, Nature Writing, and Travel Writing. Fall, spring. Creative writing staff.

35P Advanced Poetry Writing (3). Prerequisite, English 34P and permission of director of Creative Writing. A continuation of English 34P, for students seriously interested in writing poetry. Fall. Staff.

36 English Grammar (3). A study of modern English grammar (traditional, structural, and transformational) with special attention to such current problems as the confusion of grammatical terminology, attacks on traditional rules, conflict between prescriptive and descriptive grammar. Designed for prospective English teachers, but others may take it. Eble.

38 The English Language (3). Present-day English, British and American, standard and dialectal—its historical background and development. The language as a whole is considered, i.e., vocabulary, pronunciation, spelling, etc.; grammar is treated only incidentally. Eble, O'Neill.
39 Reading and Writing Children's Fiction (3.0). Prerequisite, Introduction to Fiction or Poetry (23W, 25W, 29W) or permission of instructor. A course in Reading and Writing Children's Fiction, focusing on five important forms in the genre: The Folktale, The Fairy Tale, The Picture Book, Young Adult and Biography. Fall, spring. Moose.

40 Interpretation of Poetry (3). Exploration of the significance of poetry for thought and human experience. Consideration of forms and substance. Offered infrequently.

41 Principles of Literary Art (3). A study of the theories of literature through their application to specific English masterpieces.


45 The English Drama to 1642 (3). The English drama from the beginning to 1642. Kendall, Dessen.

46A Studies in Drama (3). An intensive study of a single writer, group, movement, theme, or period in this genre. King.

46B Studies in Drama (3). An intensive study of a single writer, group, movement, theme, or period in this genre. Armitage.

47 Studies in Fiction (3). An intensive study of a single writer, group, movement, theme, or period in this genre.

47W Studies in Fiction: Style and Stylistics (3). For students who undertake creative writing or a study of literary forms.

48 Studies in Poetry (3). An intensive study of a single writer, group, movement, theme, or period in this genre.

49 Studies in Literary Topics (3). An intensive study of a single writer, group, movement, theme, or period.

50 Topics in Gender and Literature (WMST 150) (3).

51 English Literature of the Middle Ages (3). English writing from the eighth century to the fifteenth, exclusive of Chaucer. Leinbaugh, O'Neill.

52 Chaucer (3). Chaucer's development as an artist as revealed in his poetry. Kennedy, Leinbaugh.

54 Sixteenth-Century English Literature (3). Poetry and prose of representative authors, including More, Wyatt, Sidney, Spenser, Bacon, and Shakespeare's nondramatic poetry. Hall, Glass.


59 Special Topics in Shakespeare (3). Topics chosen by the individual instructor. Offered infrequently. Staff.


63 The Literary Aspects of the Bible (3). The Old Testament or the New Testament. Stumpf.

64 Milton (3). The works of Milton studied in the light of his life, times, and culture. Barbour, Machinse.

65 English Drama of the Restoration and Eighteenth Century (3). Drama of the period 1660-1775, with special emphasis on the major comic dramatists: Etherege, Wycherley, Congreve, Farquhar, Goldsmith, Sheridan. Thompson.


72 The Chief Romantic Writers (3). Blake, Wordsworth, Byron, Coleridge, Shelley, Keats, and others. Kirkpatrick, Moskal, Viscomi.

73 English Literature, 1832 - 1890 (3). Tennyson, Browning, Arnold, Dickens, Mill, Carlyle, and others. Life, Taylor.

78 English Literature, 1870 - 1910 (3). Wilde, Swinburne, Yeats, Shaw, Conrad, and others. Life, McGowan, Navarrete.

80 American Literature through the Civil War (3). Representative authors from the beginning through the Civil War. Gura, Johnstone, King.

81 American Literature from the End of the Civil War to 1930 (3). Representative authors from the end of the Civil War to 1930. Johnstone, King, Ludington, Rust, Whisnant.

82 American Literature from 1930 to the Present (3). Representative authors from 1930 to the present. Flora, Greene, King, O'Connor, Whisnant.


84 Afro-American Literature to 1950 (3). Survey of Afro-American literature from the beginning to 1950, from the slave narratives through Richard Wright. Andrews, Coleman, Greene, Harris.

85 Afro-American Literature since 1950 to the Present (3). Survey of Afro-American literature from 1950 to the present. Ellison, Baldwin, Jones, Brooks, Hayden, Gaines, and others. Coleman, Greene, Harris, Henderson.

86 American Women Authors (WMST 86) (3). Beginnings to turn of the twentieth century (1660s to 1910). Henderson, Wagner-Martin.

87 Southern Women Writers (WMST 87) (3). Southern Women Writers examines thematic and stylistic aspects in the fiction, drama, and poetry of major authors, and explores recurrent motifs in work by less-known writers, particularly those from North Carolina.


89 Canadian Literature (3). A study of Canadian literature in English from the late eighteenth century to the present, with emphasis on twentieth-century writing and on the novel. Armitage.

90 An Introduction to Literary Criticism (3). An introduction to literary criticism in English studies, with an emphasis on historical developments from Plato to the present.

90B Feminist Theory and Literary Criticism (WMST 90B) (3). Theories of women's writing, the development of a female literary tradition, and the re-evaluation by feminist literary critics of canons. Henderson, Moskal.

91 The British Novel from 1870 to World War II (3). Hardy, Conrad, Joyce, Lawrence, Cary, Greene, and others. Fall and spring. Cowan, Cooper, Harper.

92 British and American Fiction since World War II (3). Beckett, Durrell, Golding, Sillitoe, Bellow, Ellison, Malamud, Cooper, Raper, and others.

93 Twentieth Century British and American Poetry (3). Yeats, Eliot, Stevens, and others. Harmon, Lensing.

94 Capstone Courses (see below)

94A The English Language in the United States (3). A historical and critical examination of the development and use of English in the U.S., including such topics as regional and social dialects, the contributions of immigrant groups, and the notion of linguistic correctness. Social Science perspective. Eble.

94B The Roots of Modernism (3). Exploration of implicit attitudes and assumptions of the Modern mind-set, tracing their evolution through several centuries of Western thought. Designed to show how these attitudes and assumptions affect our world view. Philosophical perspective.

94C Literary Genre and Literary Form (3). Two approaches to literary genre: ahistorical and historical. Definitions, cultural signs and tensions, and personal slants of life are examined within the forms of genre.

94D The Romantic Revolution (3). Examines the technical and aesthetic revolutions in the fine arts of the English Romantic Period. It focuses on landscape painting, lyrical poetry, and original printmaking, and includes the works of Blake, Turner, Wordsworth, Viscomi.
94E Blacks in the Literature of the Western World (3). A study of Black characters in European, African, and North and South American literature. Recurrent images and themes in selected works of poetry, fiction, and drama will be explored using lecture, discussion, and film. Greene, Henderson. Aesthetic perspective.


94G Theology and Literature (3). A study of theological issues and their presentation in a variety of literary genres. Kendall. Philosophical perspective.

941 Expressive Culture of Protest and Resistance (3). Intensive analysis of expressive culture arising from social, political, and cultural resistance and protest, including literature, music, film, and vernacular expressive forms. Whisnant. Aesthetic perspective.

95 British and American Drama of the Twentieth Century (3). King, Avery, Zug.

96 Directed Readings in Literature (3). Intensive reading on a particular topic under the supervision of a member of the staff. Not to be elected without special permission of Committee on Honors. Armitage, Kennedy, Lensing, Moskal.

96W Directed Readings in Creative Writing (3,0). Permission required from Director of Creative Writing. Independent creative writing projects supervised by a member of the Creative Writing staff. Staff and visiting lecturers. Fall, spring.

97, 98 Honors (6). See the Program for Honors Work in the College of Arts and Sciences. Reading and the preparation of an essay under the direction of department advisors. Permission of Committee on Honors. Armitage, Kennedy, Lensing, Moskal.

99A Honors in Creative Writing (3). Prerequisite, English 35. The first of a two-semester sequence, three hours credit per semester. Permission of director of Creative Writing. Students must have demonstrated a high level of intellectual accomplishment and creative ability. Submission of a substantial body of achieved work in prose, poetry, or both. Fall. Staff.

99B Honors in Creative Writing (3). Prerequisite, English 35 and 99A. The second of a two-semester sequence, three credit hours per semester. Permission of director of Creative Writing. Students must have demonstrated a high level of intellectual accomplishment and creative ability. Submission of a substantial body of achieved work in prose, poetry, or both. Spring. Staff.

Courses for Graduates and Advanced Undergraduates

101X English for Speakers of Other Languages (3). English for non-native speakers. Emphasis on spoken or written English according to needs of students enrolled. Auditors not permitted. Fall and spring. Howren.

130 Advanced Expository Writing (3). This course is planned to strengthen the writing of graduate students and to ground them in the body of knowledge available to help them confront the writing problems most frequently faced in the worlds of thought, work, and teaching. Open to graduate students in all disciplines. T. Taylor.

131 Rhetorical Theory and Practice (3). A study of rhetorical theories and practices from classical to modern times. Emphasis is on translation of theories into practice in contemporary college rhetorics. Lindemann.

132 History of Rhetoric and Composition (3). A history of rhetoric, beginning with classical rhetoric but emphasizing contemporary rhetorical theory. Focuses on how language functions in society. Includes a history of composition in American higher education.

134 Advanced Creative Writing (3). Permission of instructor required. Advanced workshop in fiction. Written exercises in the use of scene, point of view, narrative, dialogue. Student projects in short story or beginning novel.

134S Creative Writing for Teachers (3). For students who undertake creative writing or a study of literary forms. Recommended for teachers of creative writing.

136 Modern English Grammar (3). A study of current English structure and usage using a traditional approach modified by appropriate contributions from structural and generative grammar, with some attention to the application of linguistics to literary analysis. Eble.

140 Introduction to Literature Theory (3). A study of various critical approaches to literature, including traditional, new critical, psychological, archetypal, etc. Cohen.

142 Literature and Film (3). An examination of several books made into films, with stress on the relationship of literature to the filmed image. Spring. Harper.

144 Studies in English Literature and the Classics (3). A study of the influences of classical literature upon selected English authors, for example, Horace and Pope.

146 Introduction to Folklore (FOLK 146, CMPL 146, ANTH 146) (3). A survey of the primary genres (song, narrative, proverb, riddle, custom, belief, drama, game) with attention to their forms, transmission, and functions in traditional and urban societies. Fall. Zug.

147 British and American Folksongs (FOLK 147) (3). An examination of the form, content, history, and literary relations of British and American folk-songs, with emphasis on the ballad, spiritual, blues, and Anglo- and Afro-American song types. Paterson.

151 English Literature of the Middle Ages (3). A survey of Old and Middle English literature exclusive of Chaucer. Old English texts and Middle English texts with difficult language are read in translation. For nonspecialists. Leinbaugh.

153 Medieval Romance (FOLK 153, CMPL 153) (3). British and continental Arthurian literature in translation from the early Middle Ages to Sir Thomas Malory. Kennedy.

154 Sixteenth-Century English Literature, Excluding Drama (3). A survey of major nondramatic genres and of about twenty authors from the period 1485 - 1605.

160 Seventeenth-Century English Literature, Excluding Drama (3). A survey of representative examples of English poetry and prose from Donne to Marvell. Spring.

166 English Literature, 1660 - 1780 (3). A survey of English literature from Dryden to Burke. Though the emphasis falls on Swift, Pope, and Johnson, a considerable amount of reading in minor authors provides essential background for the period. Stumpf.

172 Romantic Literature (3). A survey of the major English Romantic writers, including Blake, Wordsworth, Coleridge, Shelley, Byron, Keats, with an introduction to the chief scholarly and critical problems in this period. Kirkpatrick, Viscomi.

174 Victorian Literature (3). A survey of the major Victorian writers, such as Tennyson, Browning, Arnold, Carlyle, Mill, Ruskin, Dickens, Eliot. Life.

179 Literature of the Americas (COMP 179) (3). Prerequisite, two years of college-level Spanish or equivalent. Permission of instructor required. An examination of U.S.-Latin American political, social, and cultural interaction, drawing on a multidisciplined analysis of representative texts from both the U.S. and Latin America, selected from a variety of genres. Readings and class sections in both English and Spanish. Whisnant.

181 American Literature to 1900 (3). A survey of American authors and literary trends from the seventeenth century into the nineteenth century. Fall. Gura.
184 Afro-American Fiction and Poetry (3). An intensive study of fiction or poetry aimed at some comprehension of Afro-American literature as a whole. Coleman.

185 Women in Folklore and Literature (WMST 185, FOLK 185) (3). Explores the images of women depicted in the folk imagination from ancient times to the present: sorcerers, conjurers, witches, sexual objects, tricksters, healers, heroines, avengers, carriers of family tradition.

186 Folk Narrative (FOLK 186) (3). An intensive study of myths, legends, and folktales (mærchen, tall tale, animal tale, fable) with attention to their aesthetic and cultural applications. Zug.

187 Folklore in the South (FOLK 187) (3). Exploration of folklore in the South, with emphasis on genres like tales, black and white spirituals, chanted sermons, work songs, blues and dance music. Attention to social and historical backgrounds. Patterson.

188 Southern American Literature (3). The literature of the South, with special attention to the Southern Literary Renaissance of 1930 - 1950. Fall. Hobson, Raper.

189 Afro-American Folklore (FOLK 189) (3). A study of folklore within the Black community, concentrating on African and slave backgrounds, and covering rural and urban folktales, spirituals, work songs, blues, and jazz. Faxon.


191 Canadian Literature (3). A study of Canadian literature in English, with emphasis on writing since 1940 by, for example, Margaret Laurence, Robertson Davies, Mordecai Richler, and Margaret Atwood. Spring. Armitage.

194 Expressive Culture of the Appalachian Region (FOLK 194) (3). Intensive analysis of the expressive culture of the Appalachian region (material culture, music, film, literature, oral narratives, architecture) with special attention to social, economic, and historical context.

195 British and American Drama of the Twentieth Century (3). A survey of British and American drama, poetry, fiction, and criticism. Averey, King.

196 Images of War in Twentieth-Century Literature (PWAD 196) (3). A study of literary works written in English concerning World War I, the Spanish Civil War, World War II, and the Vietnam War.

196A Images of War in Twentieth-Century Literature: The First World War (PWAD 196A) (3). A study of the responses to World War I as reflected in poems, novels, memoirs, etc., by British, American, Canadian, Australian writers, and by European writers in translation.


196C Literature of World War II (PWAD 196C) (3). The course will focus on novels, poetry, drama, and memoirs by writers from the major combatant nations in the war, beginning with its preliminary, the Spanish Civil War. Spring. Armitage.

Celtic

105A: Old Irish (3). Old Irish language and literature (600 - 900), with the main emphasis on grammar; readings from selected Old Irish glosses (Strachan) and from Aislinge Oenguso (Shaw). Fall. O'Neill.

105B: Old and Middle Welsh (3). An introduction to Medieval Welsh language and literature, with selected readings from the Mabinogi and the early nature poetry. (From time to time as alternative to Celtic 105A.) O'Neill.

106A: Readings in Old Irish (3). Prerequisite, Celtic 105A. Readings in genres of Old Irish literature: Stories from the Táin (Strachan), Crith Gablach (Binchy). Cambrai Homily, Early Irish Lyrics (Murphy), Scéla Muccé Meic Dathó (Thurneysen). O'Neill.

106B: Readings in Old and Middle Welsh (3). Prerequisite, Celtic 105B. Selected readings from Medieval Welsh poetry (Cynfeirdd, Gogynfeirdd, and cwylchdd poets), tales (Branwen), and laws (The Laws of Hywel Dda). (From time to time as alternative to Celtic 106A.) O'Neill.

107 Introduction to Modern Irish (3). A basic course in modern Irish grammar and pronunciation; background readings in Irish history and culture. O'Neill.

108 Readings in Modern Irish (3). Prerequisite, Celtic 107. Selected readings from various genres: the autobiography (Mo Sceil Fín, Peig, Fiche Bliain ag Fás) and poetry (the aising and the comicad). O'Neill.

109 Introduction to Celtic Culture (FOLK 109) (3). A survey of Celtic culture under the headings of mythology, folklore, social organization, language, and literature, designed mainly for interested students who do not know any of the Celtic languages. Fall. O'Neill.

* Freshmen enrolling from the fall 1986 semester to the spring 1991 semester may take English 22 to fill one of their requirements in American literature (group 3).

** English 59 will fulfill the requirement for Group "A" if taken before fall 1989.

*** One of these must be 80 or 81.

Curriculum in Folklore

CHARLES G. ZUG III, Chair

Professors

Associate Professors
Robert Cantwell, Robert Edward Daniels, John W. Florin, Glenn D. Hinson.

The Curriculum in Folklore focuses on the study of creativity and aesthetic expression in everyday life. From the offerings of a variety of departments, the curriculum draws together courses on music and narrative, architecture and belief systems, language and art, within a wide range of ethnic, regional, religious, and occupational groups and communities. While the curriculum does not presently offer a formal undergraduate major, students may take a concentration in Folklore for the Interdisciplinary B.A. degree in the College of Arts and Sciences. Those interested in this program should apply through the director of Interdisciplinary Studies, 317 Steele Building. For information and help in planning a major or minor in folklore, students should consult the chair of the Curriculum in Folklore, Professor Charles G. Zug III, in 228 Greenlaw Hall.

Minor in Folklore

The undergraduate minor in folklore consists of five courses:

A. FOLK 146, Introduction to Folklore
B. Two courses on genre:
   1. One on music from FOLK 147, 188, 190
   2. One other from FOLK 134, 141, 148, 186, 192
C. One course on community from ANTH 40, FOLK 109, 185, 187, 189
D. One course on theory from FOLK 135, 142, 154, 174, 193.

From time to time, additional courses will be offered by current or visiting faculty. These will be listed on the course description for the term and may be used to fill some of the minor requirements.

(For descriptions of courses below, see listings under department headings.)

Courses

40 Southern Style, Southern Culture (ANTH 40) (3). Hinson.
106 Celtic Readings in Old Irish (LING 106) (3). O'Neall.
109 Introduction to Celtic Culture (CELT 109) (3). O'Neall.
121 Culture and Personality (ANTH 121) (3). Fall. Daniels.
123 Magic, Ritual, and Belief (ANTH 123) (3). Spring. Evens.
129 Culture and Power in Southeast Asia (ANTH 129, ASIA 129) (3). Peacock.
130 Native North American Cultures (ANTH 130) Spring. Staff.
132 Latin American Cultures (ANTH 132) (3). Fall. Finkler.
133 The People of the Caribbean (ANTH 133) (3). Fall. Staff.
134 Anthropology of Art and Culture (ANTH 134) (Art 174) (3). Johnson.
135 Consciousness and Symbols (ANTH 135, CMPL 135) (3). Fall. Peacock.
141 Myths and Epics of the Ancient Near East (RELI 121) (3). Spring. Sasson.
142 Religion and Anthropology (ANTH 142, RELI 142) (3). Spring. Peacock, Tyson.
143 Indo-European Culture and Society (LING 142) (3). Fall. Melchert.
146 Introduction to Folklore (ENGL 146, ANTH 146) (3). Fall. Zug.
147 British and American Folksong (ENGL 147) (3). Fall. Patterson.
148 Traditional Craftsmanship (3). An introduction to material folk culture: the study of the origins and transmission, forms and construction, functions and meanings, of traditional architecture, arts, crafts, food, clothing, tools, and technology. Spring. Alternate years. Zug.
153 Medieval Romance (ENGL 153) (3). Fall. Kennedy.
154 Historical Geography of the United States (GEOG 154) (3). Florin.
155 Method and Theory in Ethnographic Research (ANTH 155) (3). Fall. Crumley.
171 Medicine and Anthropology (ANTH 170) (3). Fall. Finkler.
175 Ethnographic Method (ANTH 175) (3). Spring. Staff.
184 Language and Culture (ANTH 184) (3). Spring. Holland.
185 Women in Folklore and Literature (ENGL 185) (3). Spring. Staff.
187 Folklore in the South (ENGL 187) (3). Spring. Patterson.
188 Country Music and American Society (3). A historical and cultural analysis of country music, exploring its relation to traditional and popular music, its repertory and performers, its institutions, its reflection of social issues, values, and change. Spring. Whisnant.
189 Afro-American Folklore (ENGL 189) (3). Fall. Staff.
192 Traditional Culture in Film (3). A critical survey of selected documentary films, exploring traditional culture itself, issues inherent in the comprehension and interpretation of culture, and the politics of culture in a multicultural society. Fall. Alternate years. Whisnant.
193 The Politics of Culture (3). A comparative, historical, multidisciplinary analysis of the politics of culture. Special attention to cultural nationalism and culturalism, legitimation, marginalization, survival and revitalization, documentation, preservation and presentation; policies, institutions, and programs. Fall. Whisnant.
194 Expressive Culture of the Appalachian Region (ENGL 194) (3). Whisnant.
195 Topics in Folklore (3). Fall and spring. Staff.
196 Field Research (3). Fall and spring. Staff.
199 Directed Readings in Folklore (3). By permission. Fall and spring. Staff.

Department of Geography

JOHN W. FLORIN, Chair

Professors

Associate Professors
David R. Butler, John W. Florin.

Assistant Professors

Geography is the study of phenomena on the surface of the earth. Within this broad vision, geographers study a myriad of different issues. Some geographers are concerned with the spatial aspects of human existence—how people and their activities are distributed across the globe, how humans use and perceive space and place, and how they create and sustain the places that make up the earth’s surface. These "human" geographers work in many fields including urban and regional planning, transportation, marketing, real estate, tourism, international business, and education among others. Interest in the human geographic domain is very well represented in the UNC-Chapel Hill department of geography by professors Birdsell, Cravey, Florin, Gesler, Johnson, and Zonn.

Physical geographers study patterns and processes of landscapes, land forms, vegetation, soils, and water. Geographers also study the linkages between human activity and these natural systems. Indeed, geographers were among the first scientists to note and study human-induced changes to the environment. Geographers are active in the study of global
warming, desertification, deforestation, loss of biodiversity, groundwater pollution, and flooding. They forecast the weather, manage land and water resources, and analyze and plan for forests, rangelands, and wetlands. A strength of the department of geography at UNC is in the physical geography/earth science/environment domain. This includes a group of physical geographers and climatologists: professors Band, Greenland, Konrad, Moody, and Robinson. The domain of human societal and environment interactions is also well represented by professors Hawley, Meade, Moody, Palm, Robinson, and Whitmore.

Many geographers use satellite and other digital images (Remote Sensing) to aid in their analysis. These images frequently form the basis for computer-aided cartography (map making) and Geographic Information Systems (GIS) used to analyze and display spatial and other aspects of human and environmental data. Geographers with these skills are employed in a wide variety of fields including governmental agencies, various business concerns, and research and education institutions. The key concern for techniques of data collection, analysis, and spatial representation (Remote Sensing and GIS) cuts across the topical specialties and is a strength of professors Band, Gesler, Hawley, Moody, and Walsh.

For more information about careers in geography, the UNC-Chapel Hill department of geography, degree requirements, and connections to other sites of interest please check our Web page at: <http://www.geog.unc.edu/>.

To earn a Bachelor of Arts in geography a student must pass a minimum of nine courses in the discipline. These include:

(a) Geography 10, Geography 11, or Geography 20
(b) Geography 70
(c) Geography 110
(d) Geography 120
(e) One regional course (Geography 58, 59, 60, 62, 157, 158, 161, 164, 166, 167, or 168)
(f) Geography 173 or Geography 71
(g) Two systematic or topical courses (Geography 12, 22, 23, 28, 30, 112, 114, 116, 119, 120, 121, 122, 123, 125, 128, 132, 134, 137, 143, 144, 145, 150, 153, 154, 157, and 158)
(h) Or two other methods courses (Geography 177, 190, 191, or 192)
(i) Any other geography course needed to raise the total to nine.

To earn a minor in Geography you must pass a minimum of five courses within Geography. These include:

(a) Geography 10, Geography 11, or Geography 20
(b) One methods course (Geography 70, 71, 173, 177, 190, 191, or 192)
(c) One regional course (Geography 58, 59, 60, 62, 157, 158, 161, 164, 166, 167, or 168)
(d) One systematic or topical course (Geography 12, 22, 23, 28, 30, 112, 114, 116, 119, 120, 121, 122, 123, 125, 128, 132, 134, 137, 143, 144, 145, 150, 153, 154, 157, and 158)
(e) One geography course of your choice.

Course Descriptions

10 Physical Geography (Man's Physical Environment) (3). An assessment of the occurrence, characteristics, and interrelationships of the earth's climates, landforms, natural vegetation, and soils, especially as they influence human attempts to utilize the environment. GC/BA-level natural science perspective (no lab). Fall and spring. Staff.

11 Weather and Climate (3). An introduction to the nature and causes of weather variability and climate change and their impact on human activity. GC/BA-level natural science perspective (no lab). Fall and spring. Staff.

12 Environmental Conservation (3). Survey of environmental change as driven by physical processes and human activity. Problem-solving methods are explored. Focus on issues such as global warming, ozone depletion, deforestation, extinction, pollution, wetland loss. This course will provide significant background in physical geography in the context of today's most pressing environmental concerns and with reference to the societal implications and management strategies. GC/BA-level natural science perspective (no lab). Moody.

20 World Regional Geography (PWAD 20) (3). A survey of the geographic structure of human activity in major world regions and nations. Emphasis is upon current developments related to population, urbanization, and economic activity. GC-level social science perspective. Fall and spring. Staff.

23 Cultural Geography (3). How population, environment, and human culture as expressed in technology and organization interact over space and time. GC-level social science perspective. Gesler, Zonn.

28 Urban Social Geography (3). Explores the evolution, development, and maturation of the U.S. urban system. Emphasis on the origin, growth, and spatial distribution of cities and on internal spatial organization of activities within cities. GC-level social science perspective. Johnson.

30 Third World Development Issues (3). Population and ecological aspects of problems in the urban, industrial, and agricultural development of Third World nations from a geographical perspective. GC/BA-level social science perspective. Meade.

58 Physiography of Anglo-America (GEOG 59) (3). Prerequisites, Geography 10 or 11, or permission of instructor. Regional analysis of the physiography of the United States and Canada, including their landforms, climate, vegetation, and soils. Greenland, Band.

59 Geography of Latin America (3). An introduction to Latin American Geography through an examination of how the region came to be distinct and how social, political, and economic processes continue to define it. GC/BA-level non-Western perspective. Fall. Cravens, Whitmore.

60 North America's Landscapes (3). A survey of the cultural and physical landscapes of the United States and Canada. Emphasis on landscape evolution, present distributions, and interactions between people and their environment. Florin, Hawley.


70 Introduction to Geographic Information (3). A survey of geographic data sources including maps, photos, digital images, census information and others. Emphasis is on appropriate uses, limitations, and skilled interpretation in physical and human geography applications. Hawley.

71 Cartography and Map Design (3). Emphasis on computer mapping for representing geographic information, fundamental mapping principles and techniques, types of thematic maps and their uses, and data selection, preparation, and processing. Hawley.

95 Topics in Geography (Var.). Permission of instructor required. Special reading and research in geography under the supervision of a selected instructor. Course may not be taken more than twice. Fall and spring. Staff.

98 Honors (3). Required of all senior students aspiring to honors in geography. Directed readings, research, and writing. Fall and spring. Staff.
99 Honors (3). Required of all seniors aspiring to honors in geography. Preparation of a senior thesis. Fall and spring. Staff.

110 Fundamental Concepts of Physical Geography (3). Prerequisite, Geography 10 or equivalent. Systematic study of the approaches, key concepts, and methods of physical geography. Emphasis given to geomorphic and biogeographic processes and techniques within a thematic framework. BA-level natural science perspective (no lab). Greenland.

112 Synoptic Meteorology (3). Prerequisite, Geography 10 or 11. An analysis of synoptic weather patterns and the processes responsible for them. Climatological aspects of these weather patterns are emphasized. Fall. Greenland, Konrad, Robinson.

114 Physical Climatology (3). Prerequisite, Geography 10 or 11. The factors causing climates and their spatial variation are considered. Particular attention is paid to climate models and to the nature, causes, and impacts of climate change. BA-level natural science perspective (no lab). Greenland, Konrad, Robinson.

116 Applied Climatology (3). Prerequisite, Geography 112 or Geography 114. An investigation of the ways climatic information and techniques can be applied to societal problems, such as energy production, food production, and health. Greenland, Konrad, Robinson.

119 Terrain Analysis (3). Terrain analysis involves the evaluation of landscape features by examining the nature and biophysical elements that influence landscape form and function. Course emphasizes integration of physical geography and remote sensing and GIS for terrain evaluation. Spring and summer. Moody, Walsh.

120 Fundamental Concepts of Human Geography (3). A systematic study of the approaches, key concepts, and methods of human geography. Emphasis is given to the cultural landscape and location analysis within a thematic rather than a regional framework. Fall. Florin.

123 Social Geography (3). A study of the spatial components of current social problems, such as poverty, race relations, environmental deterioration and pollution, and crime. BA-level social science perspective. Cravey, Johnson.

125 Space, Place and Difference (WMST 125) (3). Gender, race, and class are examined in terms of the spatial patterns of everyday life, regional patterns, and global patterns. Fall. Cravey.

128 Urban Geography (3). A geographical study of the spatial structure and function of urban settlements. Emphasis is on the regional relations of cities and central place theory. Johnson.

132 The World's Food Supply (3). A study of environmental parameters, cultural preferences, technological developments, and spatial economic infrastructure which result in world patterns of food consumption, production, and distribution. Hawley, Meade.

134 The Cultural Ecology of Agriculture and Disease (3). Examines the role of the interactions of cultures, environments, and human diseases in the quest for sustainable agriculture by examining the cultural ecology of agricultural systems and their human diseases. BA-level social science perspective. Meade, Whitmore.

137 Natural Resources (3). An analysis of selected biological and mineral resources of the world with particular emphasis on their distribution, utilization, management policies and on their social and economic implications. Hawley.

143 Ecological Plant Geography (BIOL 143) (3). Description of the major vegetation types of the world including their distribution, structure, and dynamics. The principal causes for the distribution of plant species and communities, such as climate, soils, and history will be discussed.

144 Landscape Biogeography (3). This course is concerned with the application of biogeo graphical principles and techniques to the study of natural and human-modified landscapes. It includes local and extra-regional case studies. Walsh.

145 Medical Geography (3). The human ecology of health is studied by analyzing the cultural/environmental interactions that lie behind world patterns of disease distribution, diffusion, and treatment, and the ways these are being altered by development. Fall. Meade.

146 Geography of Health Care Delivery (3). This course covers basics, including personnel and facility distributions, accessibility, regionalization, and location/allocations modelling; spatial analysis and GIS; and the cultural geography of health care, including humanist and political economic perspectives. BA-level social science perspective. Spring. Gesler.

150 Population Geography (3). A study of the spatial dimensions of population growth, density, and movement and of the shifts in these patterns as they relate to changes in selected socioeconomic and cultural phenomena. BA-level social science perspective. Florin, Meade, Whitmore.

153 Political Geography (PWAD 153) (3). The geography of politics is explored at the global, the nation-state, and the local scale in separate course units, but the interconnections between these geographical scales are emphasized throughout. BA-level social science perspective. Cravey.

154 Historical Geography of the United States (3). A study of selected past geographies of the United States with emphasis on the significant geographic changes in population, cultural, and economic conditions through time. BA-level Western Historical perspective. Florin.

157 Rural Latin America: Agriculture, Environment, and Natural Resources (3). Prerequisite, GEOG 59 or permission. This course explores a systems and cultural-ecological view of agriculture, environment, natural resources, and rural development issues in Latin America. It serves as a compliment to Urban Latin America. BA-level social science perspective. Spring. Whitmore.

158 Urban Latin America: Politics, Economy, and Society (3). Prerequisite, GEOG 59 or permission. This course examines urban social issues in contemporary Latin America. Cities and their residents will be considered in relation to each other and to North American examples. BA-level non-Western or Cultural Diversity perspective. Cravey.

161 South (3). Present-day southern United States, approached historically through a study of its physical, economic, and cultural environment. Florin.

164 Europe Today (3). A survey by topic and country of Europe west of Russia. Those features that made Europe a distinct and important region today are emphasized. Hawley.

166 Eastern Asia (ASIA 166) (3). Spatial structure of population, urbanization, agriculture, industrialization, and regional links in China, Japan, and Korea. BA-level non-Western perspective. Spring. Eyre.

167 Tropical Asia (ASIA 167) (3). The cultural diversity and regional organization, emphasizing the spatial structure and contemporary dynamics of population, agriculture, urbanization, and economic development, primarily of the nations of Southeast Asia. BA-level non-Western perspective. Meade.

168 Africa (3). Primary emphasis on the dynamic spatial organization of Africa south of the Sahara. Individual countries will be studied in view of their geographic characteristics and problems. BA-level non-Western or Cultural Diversity perspective. Gesler.

173 Geographic Information and Analysis (3). Prerequisite, Geography 70 or 71. Survey course of geographic digital data, spatial concepts, and analytical approaches for using remote sensing, geographic information systems, and computer mapping in geographic studies. Moody, Walsh.

177 Introduction to Remote Sensing and Digital Image Processing (PLAN 135) (3). Prerequisite, Geography 173 or equivalent. Emphasizes methods of data analysis that offer an automated approach to spatial and nonspatial data synthesis which combines a system of data capture, storage, management, retrieval, analysis, and display. Fall. Moody, Walsh.

190 Quantitative Methods in Geography (3). Introduction to the application of statistical methods of geographic problems with some computer use in their solution. Attention given to analysis of areal data and areal sampling. Gesler, Konrad.
191 Technical Issues in Geographic Information Systems (PLAN 136) (3). Prerequisite, Geography 173. Stresses the spatial analysis and modeling capabilities of organizing data within a geographic information system. Fall. Moody, Walsh.


Department of Geology

PAUL D. FULLAGAR, Chair

Professors

Associate Professor
Kevin G. Stewart.

Assistant Professor
Charles E. Jones.

The Department of Geology offers two undergraduate degree programs: a B.S. in geology, and a B.A. degree with a major in geology. Most students planning to do graduate work or to become professional geologists should take the B.S. program; however, the flexibility of the B.A. program may be advantageous to some with special interests.

Some students may want to combine a major in geology with a concentration in other fields of science, mathematics, or economics. Multidisciplinary curricula of this sort are encouraged, and interested students should discuss a modified set of course requirements with the department’s undergraduate adviser(s).

More departmental information may be found on the World Wide Web at <http://www.geosci.unc.edu/web/>.

B.A. Degree Requirements

For the B.A. degree with a major in geology, the student must satisfy the specific requirements of the General College and the College of Arts and Sciences (see General Education Requirements) and must complete the following departmental requirements: (1) Introductory Geology (one of the following): Geology 11 and 11L, 12, 13, 15, 18 and 18L or 41; (2) Physics 24 and 24L, 25 and 25L, or 26 and 27; (3) Chemistry 11 and 11L, 21 and 21L; (4) core courses: Geology 52, 53, 56, 57, 58; (5) a minimum of two Geology electives from courses numbered 98 or above.

B.S. Degree Requirements

B. S. candidates in geology may elect to concentrate in the areas of environmental geology, geophysics, or geochemistry. Following are specific requirements of the Department of Geology which are in addition to the General College requirements (see General Education Requirements).

Introductory Geology:
One of the following: 11 and 11L, 12, 13, 15, 18 and 18L or 41.

Core Courses:
Geology 52, 53, 56, 57, 58.

Geology Electives:
Three geology courses numbered 98 or above (geophysics concentrators should take Geology 142).

Geology Field Camp:
Geology 128 and 129 or, with permission of departmental adviser, geophysics concentrators may take Physics 52, 58; geochemistry concentrators may take Chemistry 181, 182.

Mathematics:
Math 31 and 32 plus one of: Math above 32, or Statistics above 23, or Computer Science (except 4, 96), or Biostatistics 101, 135. Geophysics concentrators should take Math 33 and 83, or another approved course. Students preparing for graduate work in geology are strongly encouraged to take additional courses in mathematics.

Physics:
Physics 24, 24L, 25, 25L, or 26 and 27.

Chemistry:
Chemistry 11, 11L, 21, 21L.

Allied Science Courses (5):
May be geology, math, or allied science courses chosen from the following list:
Anthropology: only 43, 110, 112, 114, 115, 117, and 151;
Biochemistry: any course except 40;
Biology: any course except 8, 9, and 10;
Chemistry: any course above 21;
Computer Science: any course except 4 and 96;
Environmental Sciences: any course except 101;
Geography: only 70, 110, 112, 115, 116, 117, 122, any course above 171;
Geology: any course except 11, 12, 15, and 41;
Marine Sciences: any course;
Mathematics: any course above 32;
Physics and Astronomy: any course except Physics 20, 37, 84, and 113;
Psychology: no courses;
Statistics: any course above 23;
Biostatistics: 101, 135.
All students are urged to take as much work in mathematics, statistics, computer science, and biostatistics as possible. Students concentrating in geophysics should take: Physics 52 and 58, Math 33 and 83, Geology 142, and either Physics 61 or Geology 121. Students concentrating in geochemistry, petrology, or other areas that incorporate chemistry should take chemistry courses, particularly Chemistry 181 and 182.

B.S. degree candidates do not have to satisfy upper-level Arts and Sciences perspective requirements. With written permission of the departmental adviser, certain courses in the Division of Health Affairs may be taken as allied science electives.

Independent Research/Honors Program

The Department of Geology encourages qualified undergraduate students to conduct independent research under the direction of a geology faculty member on an interesting geologic topic. This research can be conducted as a one to four credit hour project (Geology 199, Special Problems in Geology), or in conjunction with the Geology Honors Program. The Geology Honors Program is open to undergraduates with an overall grade point average of 3.2 or better as of the beginning of the fall semester of the senior year. To participate in this program, the student chooses a research topic in consultation with his or her chosen faculty sponsor and conducts the research during the last two semesters in residence. The research project should represent the equivalent time expenditure of six hours of course credit, and is taken as Geology 98 (fall semester) and Geology 99 (spring semester).

Environmental Track

Environmental geology concentrators will complete the basic geology courses required for the B.S. degree. MATH 31, 32, and 23, and PHYS 26 and 27 are required. Eight electives must be taken from an approved list (available from the departmental secretary), and at least four of these courses must be from one of the following departmental groups: 1) Biology, Biophysics, 2) Chemistry, Environmental Science and Engineering, 3) Economics, City and Regional Planning, 4) Geography, Anthropology, 5) Marine Sciences. With permission, substitutions may be made for the Geology Field Camp (GEOL 128, 129).

Minor in Geology

In addition, the Department of Geology offers the minor in geology. Requirements are: one introductory Geology course (11, 12, 13, 15, 16, 18, 41) and at least three geology courses above Geology 41, for a minimum of twelve semester hours.

Course Descriptions

11 Introduction to Geology (3). Geologic materials: minerals and rocks. Major geologic events: earthquakes, volcanic activity, mountain formation, plate tectonics, and continental drifts. Landscape development by glaciers, streams and groundwater, ocean currents and waves, wind. Not open to students with credit in or currently enrolled in Geology 13, 15, 18, or 41. (Optional lab) Fall and spring. Staff. Natural Science perspective.

11L Introductory Geology Laboratory (1). Prerequisite or corequisite. Geology 11. Study of common minerals and rocks. Use of topographic and geologic maps to illustrate geologic processes. Two laboratory hours a week. Fall and spring. Staff.

12 The Marine Environment (MASC 012) (3). Introduction to natural science emphasizing physical, chemical, biological, and geological phenomena in oceanic and coastal environments. Human use of, and impact on, marine resources. (Science majors see GEOL 101). Fall and spring. Frankenberg and Martens. Natural science perspective.

13 Geohazards and the Environment (3). The effects of natural and human geologic hazards on the environment. Topics include the effects of volcanoes, earthquakes, flooding, landslides, and wastes on the atmosphere, oceans, and solid earth. Not open to students with credit in or currently enrolled in Geology 11, 15, 18, or 41. Spring. Powell. Natural science perspective.

15 The Dynamic Earth (3). Elementary treatment of the earth as a constantly evolving planet. Volcanoes, earthquakes, mountain building, plate tectonics, continental drift, and the internal structure of the earth are emphasized. The earth in relationship to other planets is used to understand terrestrial geology and structure. Not open to students with credit in or currently enrolled in Geology 11, 13, 18, or 41. Fall. Rial. Natural science perspective.

16 Prehistoric Life (3). Origin and evolution of life as examined from the perspectives of earth history and the fossil record. (Optional lab) Spring and summer. Carter. Natural science perspective.

16L Prehistoric Life (1). Prerequisite or corequisite, Geology 16 lecture. Collection, identification, and phylogenetic analysis of common animal and plant fossils from North Carolina, including collecting trips to field sites and study at the Smithsonian Institution. Three laboratory hours or one Saturday field trip each week. Spring and summer. Carter.


18L Earth, Climate, and Life Through Time Laboratory (1). Prerequisite or corequisite, Geology 18. Rocks and crustal evolution; plate tectonics, seismology and seismic hazards; atmospheric change; fossil invertebrates, the record of mass extinctions; dinosaurs and hominids. Many of the labs will use interactive software. Fall and spring. Staff.

41 Physical Geology for Science Majors (4). Introduction to geology. Geology majors and other science majors. Origin of minerals and rocks. Structure of the earth. Erosion, volcanoes, earthquakes, plate tectonics. Not open to students with credit in or currently enrolled in Geology 11, 13, 15, or 18. Three lecture and two laboratory hours a week. Fall or spring. Staff. Natural science perspective.

42 Historical Geology (3). Prerequisite ONE of the following introductory courses: Geology 11, 12, 13, 15, 16, 18, or 41. Geologic history of earth as recorded in rocks. Evolution of continents and oceans. Fossils and the development of life from its ancient beginnings through prehistoric man. (Optional lab) Fall or spring. Staff. Natural science perspective.

43 Mineral Resources (3). Prerequisite, ONE of the following introductory courses: Geology 11, 12, 13, 15, 16, 18, or 41. A consideration of the distribution, extraction, economics, and demand for mineral resources. Specific topics will include: the impact of the mineral industry on industrial and pre-industrial economies, the unique economic factors associated with the mineral industry, the realities associated with the global misdistribution of energy and metallic resources as well as the problems associated with the depletion of resources, and the environmental impact of the mineral extraction industry. Fall or spring. Staff.
46 Geology of North America (3). Prerequisite, one of the following introductory courses: Geology 11, 12, 13, 15, 16, 18, or 41. A general introduction to the geologic evolution of North America, designed to provide students with an understanding and appreciation of the diverse natural regions of the United States and Canada. The geology of selected National Parks will be used as case studies and examples of regional geologic history. Fall or spring. Staff. Natural science perspective.

48 Environmental Geology (3). Prerequisites, one of the following introductory courses: Geology 11, 12, 13, 15, 16, 18, or 41. Environmental and human problems connected with use of earth materials and with geological processes. Mineral resources, land-use planning, and engineering geology. Fall or spring. Staff. Natural science perspective.

52 Earth Materials: Minerals (4). Prerequisites, Geology 11 or 41 or permission of instructor; Chemistry 11 (may be corequisite). Minerals in sedimentary, igneous, and metamorphic environments; their properties, occurrence, and uses. Methods of identifying minerals, including use of optical properties. Three lectures and three laboratory hours a week. Fall. Fullagar.

53 Igneous and Metamorphic Petrology (4). Prerequisite, Geology 52 or permission of instructor. Studies of the origin and evolution of igneous and metamorphic rocks, including microscopic, x-ray, and field methods; volcanology: plate-tectonic interpretation of rock sequences. Three lectures and three laboratory hours a week. Spring. Glazner.

56 Sedimentary Environments (4). Prerequisites, Geology 11, 41, or permission of instructor. Survey of clastic and carbonate depositional environments and their sedimentary deposits. Emphasis on linking process to type of sediment deposited. Includes field trips to barrier islands and Appalachians. Three lectures and three laboratory hours a week. Fall. Jones.

57 Stratigraphy (4). Prerequisites, Geology 56 or permission of instructor. Principles of measuring time and making correlations in stratified rocks. The principles of paleontology also will be introduced. Examples will illustrate both the resolution and pitfalls of lithologic, biostratigraphic, isotopic, magnetic, and seismic reflection techniques. Three lectures and three laboratory hours a week. Spring. Faull.

58 Structural Geology (4). Prerequisites, ONE of the following introductory courses: Geology 11, 12, 13, 15, 16, or 41. Introduction to the mechanical behavior and dynamic evolution of the earth's crust through the study of deformed rocks. Includes weekend field trip to western North Carolina. Fall. Stewart.

59 Physiography of Anglo-America (GEOG 58) (3). Prerequisite, Geography 10 or 11, or permission of instructor. Regional analysis of the physiography of the United States and Canada, including their landforms, climate, vegetation, and soils. Spring. Staff.

98, 99 Honors Courses (3). For details, see Geology degree requirements. Fall and spring. Staff.

101 Oceanography (MASC 101, BIOL 126, ENVR 127) (3). Prerequisites, a major in a natural science or at least two college-level courses in natural sciences. The origin of ocean basins, chemistry and dynamics of seawater, biological communities and processes, the sedimentary record, and the history of oceanography. Term paper. Intended for students with college science background; other students should consider Geology 12. Fall. Neumann. Spring. Staff.

102 Archaeological Geology (ANTH 102) (3). Prerequisite, permission of instructor. The application of geological principles and techniques to the solution of archaeological problems. Geological processes and deposits pertinent to archaeological sites, geologic framework of archaeology in the southeastern United States, and techniques of archaeological geology and site analysis are studied. Field trips to three or more sites are conducted; written reports on geological aspects of the sites required. On demand. Staff.

106 Physical Oceanography (MASC 106) (4). Prerequisites, Math 31, 32, Physics 24, 25, or permission of instructor. Descriptive regional oceanography, equations of motion, the Ekman layer, wind-driven currents, thermohaline circulation, modern observations, waves, tides. Four lecture hours a week. Fall. Bane.

115 Economic Geology (4). Prerequisites, Geology 56, 57, 58. An introduction to metallic ore deposits. Emphasis is placed on their description, origin, and distribution. Three lecture and two laboratory hours a week. On demand. Staff.


123 Marine Carbonate Environments (MASC 123) (4). Prerequisite, permission of instructor. Chemical and biological origins of calcium carbonate, skeletal structure, and chemo-mineralogy, preservation, sedimentation, and early diagenesis are studied in a variety of deep and shallow environmental settings to understand skeletal genesis, limestone origin and carbonate facies variability. Field trip to Florida, Bahamas, or Bermuda. Lab exercises; research report. Spring. Alternating years. Neumann, Crenshaw.

125 Coastal Sedimentary Environments (MASC 125) (3). Prerequisite, Geology 56. Introduction to modern shallow-water clastic environments and their sediments, emphasizing barrier islands, deltas, estuaries, wetlands, and tidal flats. Includes local field trips and discussion/application of data-collecting techniques. Spring, 1999-2000 and alternate years. Wells.


128, 129 Summer Field Courses in Geology (6). Prerequisites, Geology 52, 53, 56, 57, and 58. Six-week field camp conducted in New Mexico, Arizona, and Colorado. Field interpretation of rocks and their deformation; construction of geologic maps; introduction to hydrology. Includes field trips to classic localities such as the Grand Canyon. First summer session only. Staff.

130 Topics in Physical Geology (Var.). A two-week workshop concentrating on an in-depth evaluation of topics typically covered in high school earth science courses. The course emphasizes background material needed for teachers to teach these subjects, materials (audiovisual, readings, lab materials, etc.) available for classroom use, and supplemental demonstrations, labs, and in-class and field exercises that can be used. Depending on teacher interest, some evaluation and design of science fair projects may be addressed. Summer, on demand. Staff.

132 Invertebrate Paleontology (BIOL 110) (4). Prerequisites, Geology 16 or Biology 11, or permission of instructor. A survey of the major invertebrate phyla represented in the geologic record, with emphasis on broad skeletal morphology, evolutionary trends, ecology, and biostatigraphic significance. Three lecture and two laboratory hours a week. Fall. Carter.

133 Micropaleontology (MASC 133) (4). Prerequisites, Geology 132, Marine Sciences 146, or permission of instructor. An in-depth study of the biostatigraphy, paleoecology, and taxonomy of various microfossil groups (i.e., Foraminifera, ostracodes, conodonts, coccoliths, Radiolaria, diatoms, acritarchs, dinoflagellates, etc.) dependent upon individual student objectives. Three lecture and three laboratory hours a week. On demand. Bralower.
137 Coastal Plain Stratigraphy and Biostratigraphy (4). Prerequisite, Geology 11, 16, 18, or 41 and Geology 57 or 132, or permission of instructor. A field-oriented course on the Triassic through recent strata of the southeastern United States, including their geological framework and their litho- and biostratigraphic classification. Three lecture and two laboratory hours a week. Fall, 1998-1999 and alternate years. Carter.

138 Geomorphology (3). Prerequisite, Geology 11 or 41. The origin of landforms. Includes those formed by weathering, mass wasting, streams, dissolution of limestone, coastal processes, glaciation, and wind. Fall. Dennison.

138L Geomorphology Laboratory (1). Prerequisite or corequisite, Geology 138. Two laboratory hours per week. Fall. Dennison.

139 River Systems of East Coast North America (3). Prerequisite, Geology 11 or 41; Geology 48 or 138; at least one junior status. Analysis of twenty-three rivers from St. Lawrence to the Everglades, from headwaters to oceanic terminus of turbidite fan. Focus on stream processes, geomorphic development, hydrology, utilization history, ecology, and planning. Spring, 1999-2000 and alternate years. Dennison.

140 Biogeochemical Cycling (MSC 140) (3). Prerequisite, Geology 145, 146, or 164, or Environmental Sciences 133 or Marine Sciences 105 or permission of instructor. Biogeochemical cycling explores interfaces between marine, aquatic, atmospheric, and geological sciences emphasizing processes controlling chemical distributions in sediments, fresh and salt water, the atmosphere, and fluxes between these reservoirs. Spring. Martens, Alperin, Arnosti.

141 Introduction to Earth and Marine Systems and Modeling (MSC 152) (3). Prerequisite, Math 32 or permission of instructor. Mathematical modeling of the dynamic systems, linear and nonlinear. The fundamental budget equation. Case studies in modeling convective transport, biogeochemical processes, population dynamics. Analytical and numerical techniques, chaos theory, fractal geometry. Spring. Werner, Rial.

142 Shallow Surface Geophysics (3). Prerequisites, Physics 24, 25. Exploration of the earth's near surface using remote sensing techniques including seismology, gravity, magnetics, ground penetrating radar, and electromagnetic methods. Application of the methods to geological and environmental problems. Fall. Powell.

142L Shallow Surface Geophysics Laboratory (1). Prerequisite or corequisite, Geology 142. Three laboratory hours a week. Fall. Powell.

143 Descriptive Physical Oceanography (MSC 156) (3). Prerequisite, Marine Sciences 105 or Chemistry 61 or permission of instructor. Observed structure of the large-scale and mesoscale ocean circulation and its variability, based on modern observations. In situ and remote sensing techniques, hydrographic structure, circulation patterns, ocean-atmosphere interactions. Spring. Alternate years. Bane.

144 Organic Geochemistry (MSC 144) (3). Prerequisites, Marine Sciences 105 or Chemistry 61 or permission of instructor. Sources, transformations, and fate of natural organic matter in marine environments. Emphasis on interplay of chemical, biological, and physical processes that affect organic matter composition, distribution, and turnover. Fall. Alternate years. Arnosti.

145 Geochemistry (MSC 145) (3). Prerequisites, Geology 11 or 41, Chemistry 21, or permission of instructor. Introduction to the application of chemical principles to geological problems, with emphasis on isotopic methods. Spring. Benninger.

146 Physical Geochemistry (4). Prerequisites, Chemistry 21, Math 32, or permission of instructor. An introduction to physical geochemistry and chemical thermodynamics with special emphasis on geological applications. Three lecture and three laboratory hours a week. Fall, 1998-1999 and alternate years. Benninger.

150 History of the Earth (3). Prerequisites, Geology 11, 13, 15, 18, or 41 and 52, 53, 56, 57, and 58, or permission of instructor. History of the earth's surficial and internal systems, including: biologic evolution; development of oceans, atmosphere, and climate; plate tectonic processes; evolution of crust and mantle. Fall. Bralower, Rogers.


157 Problems in Vertebrate Evolution (BIOL 157) (3). Prerequisite, Biology 63, or permission of instructor. Study of the major transitions in vertebrate evolution and associated problems in evolutionary biology, structural change, paleoecology, biogeography and earth history, physiology and behavior. On occasion. Feduccia.


162L Energy Resources Laboratory (1). Prerequisite or corequisite, Geology 162. Laboratory problems and field trips related to Geology 162. Three laboratory hours a week. Spring, 1999-2000 and alternate years. Dennison.

163 Applied Hydrology (3). Prerequisites, Geology 11 or 41, Math 31, Physics 25, or permission of instructor. An introduction to methodologies and instrumentation for quantifying the movement of water in the earth system focusing on components of the hydrologic cycle. Emphasis is divided between analytical aspects and field procedures. Spring. Daniel.

164 Geochemistry of Natural Waters (3). Prerequisites, Geology 11, 13, 15, 18, or 41, Chemistry 21, Math 31, or permission of instructor. Survey of processes affecting the compositions of streams, lakes, the ocean, and shallow groundwaters. Spring, 1999-2000 and alternate years. Benninger.

165 Groundwater (3). Prerequisites, Geology 11, 13, 15, 18, or 41, Chemistry 21, Math 31, Physics 24, 26, or permission of instructor. Introduction to physics, chemistry, and geology of groundwater. Fall, 1999-2000 and alternate years. Benninger.

173 Topics in Petrology (4). Prerequisites, Geology 53. Origin of magmas and evolution of igneous and metamorphic rocks, combined with petrographic study of selected sites and individual examples. Two lecture and six laboratory hours a week. Spring. Glazner.

181 Fluid Dynamics (MSC 151, PHYS 131) (3). Prerequisite, Physics 103 or permission of instructor. The physical properties of fluids, kinematics, governing equations, viscous incompressible flow, vorticity dynamics, boundary layers, irrotational incompressible flow. Fall. Shay.

184 Advanced Field Seminar in Geology (1-4). Prerequisites, Geology 128 and 129 or equivalent. A field course that emphasizes advanced field methods. Emphasis is placed on large-scale, detailed field work in complex structural terrains and on independent mapping that will lead to thesis/dissertation and/or publication. On demand. Glazner.

188 Geological Oceanography (MSC 103) (4). Prerequisites, Geology 11, 41, or permission of instructor. Ocean basin origin, continental margin development, coastal geology, carbonate platforms, and pelagic sediments are subjects covered; paleo-oceanographic reconstructions are emphasized. Three lecture and two laboratory hours a week. Fall. Neumann.

197 Paleobotany (BIOL 181) (4). Prerequisites, Biology 11, 11L, or permission of instructor. An introduction to the morphology, stratigraphic occurrence, and evolutionary relationships of fossil plants. Both macrofossils and microfossils are considered. Three lecture and three laboratory hours a week. Spring. Alternate years. Gensel.

199 Special Problems in Geology (1-4). Registration requires approval of the departmental chair. For details, see discussion of geology degree requirements. Fall and spring. Staff.
Department of Germanic Languages

CLAYTON KOELB, Chair

Professors
Clayton Koeb, Siegfried Mews, David Pike, Paul Roberge.

Associate Professors
Helga Bister, Walter Francke, Alice Kuzniar, Marilyn Scott, Christopher Wild

Assistant Professor
Jonathan Hess.

The department seeks to offer courses tailored to the needs of several different groups of students. While many courses are designed to provide a rich program for German majors (including the numerous double majors), others are suitable for students seeking a more modest level of involvement in the language, literature, and culture of German-speaking Europe. Still other courses are designed for those students who cannot take the time to learn German as a prerequisite; these courses are conducted in English, with translated texts. A further group of courses gives the student an introduction into the Afrikaans, Dutch, or Norwegian languages and literatures.

Most students enter UNC-Chapel Hill German courses with no prior experience in the language, but those who have had previous exposure are placed according to their skills. Upon completion of fourth-semester German, quite a number of students take further courses simply to improve their skills or to learn more about the German language, literature, and culture; many others decide at this point to major in German, for which purpose they must consult the departmental majors adviser. It is quite common for students to “double major,” combining German with another field appropriate to their needs; in such a case students should consult advisers in the German Department and in the other department concerned.

The German major requires eight courses beyond German 4: German 11, 21 (German 11 may be taken concurrently with 21), 32, 90, and four courses taught in German on the 70-80-90 level (or, with permission, on the 100-level). Normally, two courses conducted in English count toward the major. German majors qualified for honors work may arrange with the departmental honors adviser to take German 98 (which counts as one of the eight courses for the major), followed by German 99 (writing of honors thesis), which counts as a German elective credit. Honors work should be done during the senior year.

Students seeking certification to teach in public schools should consult advisers in the School of Education.

The department offers a German Studies track leading to the B.A. The track consists of four courses taken in the department (German 11 and 21 plus two literature courses taught in German from the 70-80-90 and/or 100-level), one course each taken in the departments of history and political science, two courses with significant German content offered by other departments in the humanities and social sciences, and an interdisciplinary seminar (German 90).

All students interested in further study of German may obtain A Guide to Undergraduate Studies from the department.

Minor in Germanic Languages

The undergraduate minor in German consists of four German courses beyond German 4:

Two required courses:
GERM 11 Conversation and Composition
GERM 21 Introduction to German Literature
and two courses above GERM 11 and 21 taught in German.

(Students wishing to pursue a minor in German should have grades at B level or higher in German 3 and 4.)

Other Opportunities

The department offers advice on foreign study and job opportunities and encourages students to participate in programs arranged by the UNC Study Abroad office, including long-established programs in Göttingen, Tubingen, and Vienna, as well as programs at all universities in Baden-Württemberg. A summer study program is available in Tubingen, and a self-contained UNC-Chapel Hill fall semester is available in Berlin.

Prospective majors should consider applying for residence in the German House, a German-speaking section of a coed dormitory. Membership in Beta Rho chapter of Delta Phi Alpha, the German Honorary Society, is available to students completing German 1-4 with grades of B or better. Numerous social and educational events provide an atmosphere for effective learning and for enjoyment of cultural aspects of German life. Students anticipating further study in business, law, medicine, and other professional programs are encouraged to study German for humanistic values and as practical preparation for flexible career options in the increasingly international community of professionals.

Undergraduate Courses

Language Courses
1 Elementary German (4). Fall and spring. Staff.
2 Elementary German (4). Fall and spring. Staff.
1A Elementary German (4). Honors. Fall. Staff.
2A Elementary German (4). Honors. Spring. Staff.
1-2 Intensive Elementary German (6). Prerequisite, permission of instructor. An accelerated, intensive course that essentially covers materials of German 1 and 2 in one semester. Fall. Staff.
3 Intermediate German (3). Intensive reading and review of grammar; discussion in German. Fall and spring. Staff.
3A Intermediate German (3). Honors. Fall. Staff.
4 Intermediate German (3). Reading of selected texts with discussion in German. Fall and spring. Staff.

4A Intermediate German (3). Honors. Spring. Staff.

3-4 Intensive Intermediate German (6). Prerequisite, German 1-2 or Germ 2 or permission of instructor. An accelerated intensive course that covers the materials of German 3 and 4 in one semester. Spring. Staff.

10 Business German (3). Prerequisite, German 4 or permission of instructor. An introduction to the German business world and an overview of its practices with strong emphasis on acquisition of advanced business-related language skills with a general study of German economics, politics, history, and culture. Fall or spring. Staff.

11 Conversation and Composition (3). Prerequisite, German 4 or permission of instructor. Emphasis is on speaking, with shorter readings on contemporary German life to provide subject matter for in-class discussion and regular written compositions. Further goals include improvement of pronunciation and a mastery of grammar. Fall and spring. Staff.

22 Advanced Conversation and Composition (3). Prerequisite, German 11 or permission of instructor. Continues the goals of German 11, but with added emphasis on stylistic improvement in speaking and writing. Fall and spring. Staff.

Literature Courses in German

21 Introduction to German Literature (3). Prerequisite, German 4 or equivalent. Presents major authors (such as Goethe, Mann, Kafka, and Brecht), genres, and textual analysis. An appropriate conclusion to German 1-4. It also provides the background for more advanced graduate literature courses. Discussion and essays in German. Fall and spring. Staff.

68 German Culture (3). Prerequisites, German 11 or 21, or permission of instructor. Major trends in intellectual, artistic, musical, and political life in the German-speaking countries, ca. 1300-1980. Lectures in German, readings in German and English. Fall or spring. Pfeifer.

70 The Age of Goethe (3). Prerequisites, German 11 and 21, or permission of instructor. German literature from the Enlightenment to Romanticism. Readings include works by Lessing, Goethe, Schiller, Kleist, and the Romantics. Fall or spring. Kuzniar, staff.

71 Modern German Literature (3). Prerequisites, German 11 and 21, or permission of instructor. German literature from 1890 to the present. Study of masterpieces by authors such as Thomas Mann, Kafka, Brecht, Hesse, and Grass. Fall or spring. Staff.

72 German Literature in East and West (3). Prerequisites, German 11 and 21, or permission of instructor. An examination and comparison of writings published in the two Germanies, 1945-1989. Readings of works by Böll, Grass, Wolf, Becker, Fühmann, and others. Fall or spring. Pfeifer.

73 Die Jahnhundertwende (3). Prerequisites, German 11 and 21, or permission of instructor. Investigation of the interconnectedness of turn-of-the-century arts, philosophy, and psychoanalysis with focus on Berlin and Vienna. Works by Nietzsche, Hauptmann, Schnitzler, Freud, Hesse, Hofmannsthal, Strauss, Kafka, Rilke, T. Mann. Fall or spring. Kuzniar.

74 Austrian Literature (3). Prerequisites, German 11 and 21, or permission of instructor. Presents Austria from the Biedermeier period to the end of the monarchy. Literary readings as cultural documents. Works by authors such as Stifter, Schnitzler, Roth, Freud, Herzl, depicting artistic, political, historical themes. Fall or spring. Scott.

76 Readings in German Intellectual History (3). Prerequisites, German 11 and 21, or permission of instructor. Introduction to German intellectual history from the Enlightenment to the rise of fascism. Close readings and discussions of texts by Kant, Schiller, Hegel, Marx, Nietzsche, Freud, and Benjamin. Fall or spring. Hess.

80 The German Novella (3). Prerequisites, German 11 and 21, or permission of instructor. The development of the genre from Romanticism to the present. Reading of the novellas by such authors as Kleist, Brentano, Meyer, Keller, and Kafka. Fall or spring. Staff.

81 German Drama (3). Prerequisites, German 11 and 21, or permission of instructor. German drama from the late Enlightenment to the present. Readings include plays by dramatists such as Goethe, Schiller, Kleist, Hauptmann, Brecht, and Dürrenmatt. Fall or spring. Staff.

82 German Lyric (3). Prerequisites, German 11 and 21, or permission of instructor. Survey of German poetry according to major poets, forms, and literary movements. Fall or spring. Scott.

95 Studies in German Literature (3). Prerequisites, German 11 and 21, or permission of instructor. Study of a literary genre, theme, writer, period, movement, or problem. Fall or spring. Staff.

98, 99 Honors Course (3 each). Reading and special studies under the direction of department advisers. For majors only. Fall and spring. Staff.

Courses in English Translation (No German required.)

29 Honors: German Topics (3). Exploration of language or literary issues and problems with focus on German and comparison with related issues in other languages and cultures. Readings, discussion in English. Fall or spring. Staff.

40 Great Works of German Literature in Translation (3). A study of masterpieces from medieval romances (Parzival, Tristan, Nibelungenlied), the era of Goethe and Schiller, and the modern period (Mann, Kafka, Hesse, Brecht). Fall or spring. Staff.

41 Twentieth-Century German Literature in Translation (3). Modern German literature in relation to its social, political, and aesthetic background. Study of masterpieces of authors such as Thomas Mann, Kafka, Grass. Fall or spring. Staff.

44 Women in German Cinema (WMS 44) (3). Introduction to feminist aesthetics and film theory by the examination of the representation of women in German cinema from Expressionism to the present. All films subtitled. Fall or spring. Kuzniar.

46 Studies in German Literature (3). Study of literary genre, theme, writer, period, movement, or problem. Fall or spring. Staff.

94A Ideology and Aesthetics: Marxism and Literature (Slavic 94A) (3). Examination of clash between 20th-century writers and the state in countries where a single political government or party used an exclusive ideology as justification for interference in cultural and literary affairs. Fall or spring. Pfeifer. (Does not count for the German major.)

94B South Africa in Literary Perspective (3). Prerequisite, permission of instructor. Course aims at an understanding of the South African experience as it is represented by that country's important writers. Readings include works by Gordimer, Coetzee, Mbikie, Breytenbach, Fugard, Ndebele, Fatou, Is:uma. Fall or spring. Robeger. (Does not count for the German major.)

Methods in Teaching K-12 German

83 Materials and Methods in K-12 German (EDUC 89G) (6). Prerequisite, senior status. Fall. Heinig-Boynton.

84 Directed Teaching of K-12 German (EDUC 84G) (12). Prerequisite, German 83. Spring. Heinig-Boynton.

German Studies

90 Contemporary German Studies: An Interdisciplinary Seminar (HIST 93, POLI 51, SOC 120) (3). Prerequisites, German 1-4, or permission of instructors. The interdisciplinary, team-taught seminar will explore cultural, historical, and political problems of contemporary Germany and analyze German developments from the postwar period to the present.
Courses for Undergraduate and Graduate Students

German Language and Literature

100 Advanced German Grammar (3). Prerequisites, German 11, 21, 22, or equivalent. A study of current German grammar and usage. This course strengthens the writing of graduate students and helps them confront the problems most frequently faced in speaking and teaching. Fall. Bister.

111 History of German Literature I (3). This course is the first part of a two-semester sequence offering students a comprehensive, text-based survey of German literary history from the High Middle Ages to the present. Fall.

112 History of German Literature II (3). This course is the second part of a two-semester sequence offering students a comprehensive, text-based survey of German literary history from the High Middle Ages to the present. Spring.

115 Early Modern Literature (3). German literature of the fifteenth, sixteenth, and seventeenth centuries. Close readings, lectures, and discussions of representative texts. Fall or spring.

120 Eighteenth-Century Literature (3). German literature in the Age of Enlightenment. Close readings, lectures, and discussions of representative texts. Fall or spring.

125 Early Nineteenth-Century Literature (3). German literature of the Romantic period. Close readings, lectures, and discussions of representative texts. Fall or spring.

130 Later Nineteenth-Century Literature (3). The literature of Realism, Naturalism, and related movements. Close readings, lectures, and discussions of representative texts. Fall or spring.

135 Early Twentieth-Century Literature (3). Major figures of the period from the turn of the century to the Second World War. Close readings, lectures, and discussions of representative texts. Fall or spring.

140 Later Twentieth-Century Literature (3). Literature since World War II in both the Federal Republic and the former GDR. Close readings, lectures, and discussions of representative texts. Fall or spring.

155 Stylistics: Theory and Practice (3). Prerequisites, German 11, 21, and 100, or equivalent and permission of instructor. A study of stylistic theories and practices in literature and linguistics; analysis of a large variety of texts; written exercises; training in the use of stylistic devices. Spring. Bister.

160 History of the German Language (3). Development of sounds and forms from ancient times to present. Political, social, and literary forces influencing the language. Prerequisite, a good reading knowledge of German. Fall. Roberge.

165 The Structure of Modern German (3). Prerequisite, proficiency in German. Introduction to formal analysis of German grammar (phonology, morphophonemics, prosodies, morphology, syntax) within the framework of generative grammar. Fall or spring. Roberge.

172 Pidgins and Creoles (LING 172, ANTH 192) (3). Examination of the linguistic features of pidgin and creole languages, the sociohistorical context of their development, and their import for current theoretical issues (acquisition, universals, language change). Staff.

175 Variation in German (3). A comprehensive account of major topics in German sociolinguistics: development of the German language, traditional dialects, variation in contemporary colloquial speech, German as a minority language (Alsace, Belgium), German outside of Germany (Austria, Switzerland, Luxembourg). Fall or spring. Bister.

180 Problems in German Linguistics (3). Special problems will be selected for intensive investigation. The subject matter of the course will be adapted to the particular interests of the students and instructor. Fall or spring.

Dutch

105 Elementary Dutch (3). Prerequisite, reading knowledge of German or permission of instructor. Rapid introduction to modern Nederlandse with emphasis on both speaking and reading. Fall. Alternate years. Francke.

106 Intermediate Dutch (3). Prerequisite, Dutch 105 or equivalent. Reading of modern Dutch literature with discussions in Dutch. Spring. Alternate years. Francke.

Scandinavian

181 Elementary Norwegian (3). Rapid introduction to modern Norwegian (bokmål) with attention to both speaking and reading. Fall. Smith.

182 Intermediate Norwegian (3). Prerequisite, German 181 or equivalent. Speaking and reading of Norwegian, with focus on twentieth-century literature. Brief introduction to Nynorsk, Danish, and Swedish. Spring. Smith.

Department of History

PETER A. COCLANIS, Chair

Professors

Associate Professors

Assistant Professors
Alison E. Isenberg, Katherine R. Jolluck, Sarah D. Shields, Keith A. Wailoo.

Semi-Retired Professors
William E. Leuchtenburg, Gerhard L. Weinberg.

Professors Emeriti

The study of history is an essential part of a liberal arts education and offers valuable preparation for many careers: in law, journalism, libraries, and museums; in local, state, and national public service; in business; in international
work; and, of course, in historical research and teaching. More broadly, by an exposure to a variety of cultures and human experience and by training in the interpretation of conflicting evidence, the department of history seeks to prepare a person for the responsibilities of citizenship and for dealing with the ambiguities of human existence.

Diversity in the program of the history major encourages a comparative approach to human problems and discourages parochialism; specialization in the program promotes an appreciation of the complexity of human affairs and the difficulties involved in interpreting them. Finally, the discipline of history stimulates imagination and analytical thinking.

**Requirements for the Major**

Students must complete the following requirements for a major. Each major shall concentrate in one area (American, Ancient/Medieval, Modern European, or Third World/Non-Western) or devise a thematic concentration and have it approved by the chair of the Undergraduate Studies Committee.

A history major consists of ten history courses. These can include two history courses used to fulfill the historical perspective of the General College. A minimum of four and a maximum of six courses of these ten courses will fall in the student’s field of concentration. A minimum of four and a maximum of six courses will be outside of the student’s field of concentration. All majors will take at least one history department course in Third World/Non-Western history. A minimum of six of the courses that a student takes for the major must be numbered “50” or above. Each major will take a History 90 seminar (Undergraduate Seminar in History).

Of these ten courses, at least seven must be completed with a grade of C or higher. No history course may be taken for Pass-Fail credit (even if the course serves as a free elective). A maximum of thirteen history courses (forty hours) may be applied towards the B.A. degree. Any courses beyond the minimal ten (but not above the maximum of thirteen) will count as free electives. No more than five courses of AP and transfer credit can count toward the major.

In addition to the major requirements, history majors also must complete General Education requirements regarding BA-level perspectives. These courses may not be taken pass/fail. Students taking a major in history may not use a history department course to fulfill a perspective at the B.A. level unless the course is a capstone course.

**NOTE:** Courses in Directed Teaching of the Social Sciences and in Materials and Methods of Teaching the Social Sciences will be found under the School of Education.

**History Honors**

The departmental honors program is open to any qualified history major with at least a 3.2 overall average and, under normal circumstances, a 3.4 in history courses, and experience in research and writing derived from a History 90. The student pursuing a degree in History with Honors must take History 98A and 98B. The student, in consultation with the honors director, will choose a topic and locate an appropriate faculty member to supervise the essay. In 98A the mechanics of researching and writing a senior essay will be discussed, and a start made on the essay itself. In 98B the essay will be completed, and the student examined by the supervisor and at least one additional faculty member to be agreed upon by the student and supervisor. To receive highest honors the essay must be recommended by the examiners and a review committee. The director of honors, in consultation with the examiners and review committee, will recommend that the student who has defended the essay graduate with either honors or highest honors, or merely with course credit.

Students should submit applications for the honors program by early March during their junior year. For detailed guidelines, contact the director of honors in the Department of History.

**The Minor in History**

The minor in history consists of five courses taken in the Department of History. A maximum of two courses can be below 50; no more than one course can be used to fulfill perspective requirements for General College. Students must have a grade of C or better in at least four of the five courses; three must be taken at UNC-Chapel Hill or a program officially sponsored by the University. Students taking a minor in history may not use a history department course to fulfill a BA-level perspective unless the course is a capstone course.

**Course Descriptions**

4H Honors in Third World History (3). This course will focus on problems dealing with the historical formation of non-Western, developing societies generally referred to as the Third World. Specific themes and geographic region vary from year to year. As announced. Staff.

5H Honors in Western Civilization to 1650 (3). An examination and analysis of major themes and topics in the political, social, intellectual, cultural, and economic history of the West from ancient times to the seventeenth century. Fall. Staff.

6H Honors in Western Civilization since 1650 (3). An examination and analysis of major themes and topics in political, social, and intellectual, cultural, and economic history of the West from the seventeenth century to the present. Spring. Staff.

7H Honors in American History to 1865 (3). An exploration and analysis of major themes and events in the political, economic, cultural, social, and intellectual history of the United States from its founding to the Civil War. Fall. Staff.

8H Honors in American History since 1865 (3). An exploration and analysis of major themes and events in political, economic, cultural, social, and intellectual history of the United States from the Civil War to the present. Spring. Staff.

11 History of Western Civilization to 1650 (3). The emergence of western civilization from Greek antiquity to the mid-seventeenth century. Fall and spring. Staff.

12 History of Western Civilization since 1650 (3). The development of western civilization from the middle of the seventeenth century to the present. Fall and spring. Staff.

14 Ancient History (3). A topical survey of the ancient world, especially the civilization of the Near East, Greece, and Rome. Fall. McCoy.

16 Early Modern European History, 1450-1815 (3). Intellectual and social structures, dynamics of social and political change, principles of authority and bases of revolution from the Reformation to the French Revolutionary and Napoleonic period. Fall. Staff.

17 Twentieth Century Europe (3). A critical overview of twentieth-century European history, with particular attention to the constant ethnic, religious, social, economic, and cultural struggles (including Holocaust, Cold War) in various sub-units of the old continent. Spring. Jarashes.

18 The Contemporary World in Historical Perspective: The World since 1945 (3). Analyzes the Cold War, the challenge of decolonization, America's role in international politics, the world as an economic and political unit, the multipolar diplomacy of the 1970s. Fall and spring. (Cannot receive credit for both History 18 and 19.) Fletcher, Hunt, Raleigh, Reid, staff.

19 Diversity and Post-1945 World History (3). This course presents an overview of world history since 1945 with special emphasis on cultural and social diversity in specific historical situations during this period. (Cannot receive credit for both History 18 and 19.) Fall and spring. Reid.

21 American History to 1865 (3). A survey of various aspects of American development during the colonial, revolutionary, and national periods, with stress upon major themes and interpretations. Fall and spring. Staff.

22 American History since 1865 (3). A survey of various aspects of American development during a century of rapid industrial, social, political, and international change, with stress upon major themes and interpretations. Fall and spring. Staff.

24 Latin America under Colonial Rule (3). Social and economic development under Colonial rule; especially in Mexico and Peru. Fall.

25 Latin America since Independence (3). A general introduction to Latin American society, culture, politics, and economics from a historical perspective. Focus will be on the events of the past two centuries. Spring. Chasteen, Perez.

27 English History to 1688 (3). Prehistoric and Roman Britain; Dark Age and Medieval England; Reformation, founding of the Colonies, revolutions scientific and political. An introductory survey for freshmen and sophomores. Fall, Harris.

28 English History since 1688 (3). A general survey emphasizing the social, economic, political, and intellectual development of modern English society. Spring, Soloway.

30 Russian History to 1861 (3). The major themes of this survey are the development of the unified, centralized state, the growth of serfdom, and the origins of the Russian revolutionary movement. Fall. Griffiths, Brooks.

31 History of Russia from 1861 to the Present (3). This survey of modern Russia analyzes the abolition of serfdom, the Russian revolutions, continuity and change, the pre- and postrevolutionary periods, and the relationship between Russia and the West in the last century. Spring. Brooks, Griffiths.

33 Traditional East Asia (ASIA 33) (3). Comparative and interdisciplinary introduction to the major political, social, and cultural traditions of China and Japan before their societies were disrupted in the nineteenth century by Western intrusion. Fall. Kessler.

34 Modern East Asia (ASIA 34) (3). Comparative and interdisciplinary introduction to China and Japan in the nineteenth and twentieth centuries, focusing on impact of the West, nation-building, industrialization, and evolution of mass society. Spring. Fletcher.

36 Introduction to Islamic Civilization (RELI 25) (3). A broad, comprehensive, and interdisciplinary introduction to the traditional civilization of the Muslim world. Fall. Shields.

37 Later Islamic Civilization and the Modern Muslim World (RELI 26) (3). A broad interdisciplinary survey of the later Islamic empires since the fifteenth century and their successor societies in the modern Muslim world. Spring. Shields.


41 History of Africans in the Americas through Emancipation (3). A survey of the pre-emancipation history of the peoples of African descent in Latin America and the Caribbean with some attention to developments in North America. Fall.

42 History of Africans in the Americas since Emancipation (3). A survey of the history of Blacks since the end of slavery in Latin America and the Caribbean with some attention to developments in North America. Spring.

52 History of Greece (3). A survey of Greek history and culture from the Bronze Age to the Hellenistic period. Spring. McCoy.

53 History of Rome (3). Origins to the first two centuries A.D. Focuses upon Rome's growth as a world power and the shift from republican government to autocracy. Fall or spring. Talbert.


55 Women and Marriage in Medieval and Renaissance Europe (3). Gender and family in European culture, 600 - 1600. Changes in religious and political principles regarding women and marriage practices. Evolution of domestic relationships in different classes, countries, and periods. Fall. Chopacki. GC Pre-1700 western historical perspective.

56 Manor to Machine: The Economic Shaping of Europe (3). From agriculture to industry, Europe's march to industrialization. Survey from the medieval manor through revival of trade, rise of towns, credit and capitalism, overseas expansion and mercantilism to the Industrial Revolution. Spring. Bullard.

57 Origins of Modern Germany, 1350 - 1815 (3). A survey of Germany's political, social, and cultural history, including the Reformation and Counter Reformation, the Thirty Years' War, the development of the Prussian and Austrian states, and the Enlightenment. Fall or spring. McIntosh. BA-level western historical perspective.

58 Women in Europe before 1750 (WMST 58) (3). The female experience in preindustrial Europe (from Ancient Greece to the Industrial Revolution). Fall. Alternate years. Bennett, Harris.

59 Women in Europe since 1750 (WMST 59) (3). The impact of industrialization on women's work, her position in the family, her role and social status during the nineteenth and twentieth centuries. Spring. Alternate years. Bennett, Harris.

60 Eastern Europe since 1815 (3). A study in the emergence of nations of Eastern Europe, their internal development, mutual conflicts, and struggle for independence. Fall. Joluck.

61 Women in Russian and Soviet History, 1860 - Present (WMST 60) (3). This course traces the development of the woman question in tsarist Russia, how the Soviet regime affected women's lives, and how women's experiences compare to the Party's claim of equality. Spring and summer. Raleigh, staff.

62 Women in American History (WMST 62) (3). Women's roles and contributions from the colonial period to the present. Themes include the family and sexuality, the impact of industrialization, reform movements, and difference of race, class, and region. Fall or spring. Hall, Hoffert.

63A History of Sea Power (PWAD 63) (3). The influence of seapower on international affairs will be surveyed from ancient times to the present. Emphasis on U.S. Naval History and its interaction with diplomacy, economics, and technology. Fall or spring. Staff.
History of American Business (3). A survey of the rise and development of the major financial, commercial, manufacturing, and transportation enterprises which transformed the United States from an agricultural into a leading industrial nation. Spring, Cothran.

The Worker and American Life (3). From the experience of colonial artisans to contemporary factory and office workers, organized and unorganized, this course examines the effect of the industrial revolution on the American social and political landscape. Spring, Fink.

*66 North Carolina History before 1865 (3). The history of North Carolina from the original Indian cultures to the end of the Civil War. Important topics include colonization, the American Revolution, evangelical religion, slavery, economic and political reform, the rise of sectionalism, and the Civil War. Fall. Leloudis, Watson.

*67 North Carolina History since 1865 (3). The history of North Carolina from the end of the Civil War to the present. Important topics include Reconstruction, agrarian protests, disfranchisement and segregation, industrialization and workers' experience, the civil rights movement, and twentieth-century politics. Spring, Leloudis, Watson.

War and American Society to 1903 (PWAD 76) (3). The American military experience from colonial times to the early twentieth century. Major themes include the problem of security, the development of military policies and institutions, and the way in which the country waged and experienced war. Fall, Kohn.

War and American Society, Twentieth Century (PWAD 77) (3). Survey of America's military experience in the twentieth century, focusing on national security policy, military institutions, World Wars I and II, the Cold War, the Korean and Vietnam Wars, and recent interventions. Spring, Kohn.

Women in the Age of Victoria (3). See WMST 70.

Emancipation in the New World (3). See AFAM 074.

History of Native Americans (3). A survey of Native American cultures of North America from the earliest times to the present with a focus on the period after 1500. Fall and spring.

History of Native Americans in the Southeast (3). An examination of selected topics concerning the most significant Native American cultures and tribes in the Southeastern United States from the earliest times to the present. Fall and spring.


The American West, 1800 to the Present (3). A survey and interpretation of the American West in the nineteenth and twentieth centuries, emphasizing the special role of the West in the evolution of American history and the development of contemporary American society. Fall, Lochtlin.

The Middle East in the Modern Era (3). This course introduces students to the last two hundred years of Middle Eastern history and focuses on the themes of global context, gender, legitimacy of the state, and religious political movements. These themes will also be used to compare the Middle East to the United States. Cultural diversity requirement.

The Trans-Atlantic Slave Trade (3). Slavery in select African communities, economic and political foundations of the trans-Atlantic slave trade, and its impact on African and New World societies. Fall, Newbury.

South Africa: The Apartheid Years (3). South African history from before European establishment to the mid-1980s. Focuses on the economic/political foundations of apartheid, its social effects, and African responses that transformed South Africa in the 1980s. Fall, Newbury. Cultural diversity requirement.

Women and Gender in Latin American History (WMST 80) (3). Examines the experiences of women and gender relations in Latin American societies from pre-Columbian times to the present, providing a new perspective on the region's historical development. Spring, Chambers.

Revolutionary Change in Latin America (3). Comparative approach to the question of continuity and social change. Case studies include: Mexico, Cuba under Castro, Chile under Allende, and Central America. Emphasis given to the quest for economic development and political stability, and to revolutionary ideologies. Spring, Alternate years. Staff.

Origins of the Chinese Revolution (ASIA 83) (3). The struggle for revolutionary change in China from the turn of the century to the establishment of the People's Republic in 1949. Fall, Kessler.

Revolutionary Change in Contemporary China (ASIA 86) (3). Political and economic reconstruction in China since 1949: the transition to a post-Mao order and life and society in China today. Spring, Kessler.

Thought and Society in Japan (3). Topical approach to the intellectual and social history of Japan. Topics include: the role of the family and women, keys to economic growth, development of antimodernism, search for Japanese values. Spring, Fletcher.

Imperial Japan: From "Revolution" to World War (ASIA 87) (3). This course studies Japanese feudalism, the Meiji "revolution," modernization, the formation of Japan's empire, the beginnings of Japanese democracy, and the coming of the Pacific War. Fall, Fletcher.

Japan since 1945: The Fragile Superpower (ASIA 88) (3). Examines Japan's recovery from defeat in World War II to rise again as a major power. Topics include: the American occupation, Japanese democracy, economic recovery, changes in social values, and foreign relations. Spring, Fletcher.

Peace and War (PWAD 78) (3). The emphasis will be historical, with conceptual tools from other disciplines used when appropriate. Theoretical explanations, militarism, the international system, internal order, and the search for peace will be examined. Spring, Brooks.

Undergraduate Seminar in History (3). The subject matter of the courses will vary with the instructor and topic. Each course will concern itself with a study in depth of some problem in history. Permission must be received from the Undergraduate Secretary in HM 556 to register for the course, and the course is in general limited to fifteen students. Both semesters. Staff.

Independent Studies in History (3). Permission required. For the history major who wishes to create and pursue a historical project under supervision of selected instructor. Course is limited to three credit hours per semester. Fall and spring. Staff.

The Culture of the Ancient Near East (RELI 20) (3). Fall, Sonesson.

The History of Religion in America (RELI 29) (3). Spring.

History and Culture of Ancient Israel (RELI 50) (3). Spring, Van Seters.

Religion in Colonial Society (RELI 71) (3). Spring.

Contemporary German Studies: An Interdisciplinary Seminar (GERM 90, POLI 51) (3). See German 90 for description.

Myth and History (3). Myths and legends are the stuff of history. An interdisciplinary Capstone course treating topics such as Alexander the Great and George Washington as mytho-historical heroes; The Holy Grail; and uses of myth in the modern world. Fall or spring. Alternate years. Bullard.

Interdisciplinary Seminar in Renaissance Studies (ROML 94A, CMPL 94A) (3). An interdisciplinary, thematic study of Renaissance (fourteenth, fifteenth, and sixteenth centuries) letters, art, historic movements in Europe. Fall or spring. Headley, Masters.

Revolution in Modern East Asia (3). Non-western in focus and analytic and comparative in approach, this course deals with the revolutions that have defined the national life of Japan, China, Vietnam, and the Philippines. Fall or spring. Alternate years. Hunt.

Topics in Comparative History (3). Each section of this course is taught jointly by two faculty. The subject matter varies with the instructors and the topic but definition comparative analysis forms a central feature. Fall, spring. History faculty.
96 An Introduction to History as a Discipline (3). This course integrates an introduction to approaches for studying history, an introduction to research methods, and intensive work in the skills of oral expression, reading critically, and writing. Staff.

98A, B Honors in History (3 each). Permission of instructor required. Introduction to the methods of historical research, designed to lead to the completion of an Honors essay. 98A, Fall; 98B, Spring. Filene.

100 Special Topics in History (3). Subject matter will vary with instructor but will focus on some particular topic or historical approach. Course description available from departmental office. Staff.

101 Alexander (3). The rise of Macedonia; the careers of Philip II and Alexander; and the emerging Hellenistic Age. Fall or spring. McCoy.

102A Ancient Greek Warfare (PWAD 106) (3). War and the warrior in the archaic and classical Greek world, seventh-fourth centuries B.C. Fall or spring. McCoy.

102B Ancient Greek Society and Culture (3). Topical approach to the social and cultural history of the ancient Greek city states, c. 800 - 336 B.C. History strongly recommended. Fall, spring. McCoy.

103 Roman History, 154 B.C. - 14 A.D. (3). Explores the transformation from Republic to Principate. Conducted in considerable part by student reports and classroom discussions. Fall or spring. Talbert.

104A The Early Roman Empire, 14 A.D. - 193 A.D. (3). Focuses upon administrative, social, and economic themes. Conducted in considerable part by student reports and classroom discussions. Fall or spring. Talbert.

104B The Later Roman Empire, 193 A.D. - 378 A.D. (3). Focuses upon administrative, social, and economic themes. Conducted in considerable part by student reports and classroom discussions. Fall or spring. Talbert.

105 Greek and Roman Historical Literature (CLAS 109) (3). The study in English translation of selections from Herodotus, Thucydides, Livy,Tacitus, and others with consideration of their literary qualities and their readability as historians. Fall. Alternate years. McCoy.


107 Europe in Early Middle Ages (3). A survey of the Mediterranean World and northern Europe from the Later Roman Empire until the end of the ninth century. Fall. Alternate years.

108 Europe in the Middle Ages, 900 - 1300 (3). A survey of the political and institutional development of primarily Western Europe from late Carolingian times to the end of the thirteenth century. Fall.

109 Medieval Thought and Learning (3). A survey of the educational traditions and major (Latin) writers in Western Europe from late Roman times through the thirteenth century. Fall. Alternate years.

110 The Medieval University (3). The origins and development of the university during the period 1000 - 1400; types of organization, curricula and degrees, intellectual life, town-gown and student-master relationships. Spring. Alternate years. McVaugh.

111 Women and Men in the Renaissance (3). Gender roles and relationships in Europe, 1350 - 1550. Renaissance state and domestic patriarchy; marriage, sexuality, and religious change; new ideas about sex and gender; economic change and domestic roles. Chojnacki.

112 The Renaissance (3). Italy, birthplace of the Renaissance, 1300-1550. A study of the people, culture, and intellectual achievements of the Italian Renaissance with emphasis on the interaction between culture and society. Fall. Bullard.

113 Mediterranean Societies and Economics in the Renaissance World (3). A picture of Mediterranean social and economic life 1300 -1600, with special focus on rural and urban society, family structure, patronage, work and wages, public and private finance. Spring. Bullard.


115 Europe in the Seventeenth Century (3). The century marks the watershed in European development. Emphasizes: statecraft, the emerging state system, the new scientific world-view, the impact upon European society. Spring. Alternate years. Headley.

116 France in the Age of Reason (3). This course examines the Age of Enlightenment in France (1660 - 1787). The ideas of the "philosophes" will be placed in a broad social, political, and international context. Fall, spring. Smith.


118 Europe, 1871 - 1918 (3). Emphasizes the disintegration of Europe, culminating in the First World War and the fall of the continental empires. Fall or spring. Alternate years. Staff.

119 Europe since 1918 (3). The main currents in European history since the First World War. Special attention will be given to the interaction between national and international events and developments and to the emergence of the European Communities. Fall. Weinberg.

120A France From Joan of Arc to Louis XIV (3). This course covers the social, political, and cultural history of France from the later Middle Ages to 1715. The monarchy's evolution from near extinction to "absolutism" provides the main storyline. Fall, spring. Smith.

120B France from 1787 to 1870 (3). The French people from the era of the Revolution to the Commune; cultural and social sources of political instability, the revolutionary tradition, liberal and conservative movements, industrialization. Fall. Reid.

121 France since 1870 (3). French society and culture from the Paris Commune of 1871 to the student revolt of May 1968. Fall or spring. Alternate years. Reid.

122 Germany, 1815 - 1918 (3). The nature of Prussian society, the rivalry between Prussia and Austria for the command of German affairs, and the quality of Prussian leadership in the German Empire of 1871. Fall. Alternate years. Jarausch.

123 History of Germany since 1918 (3). Politics and culture in the Weimar Republic, Nazi totalitarianism, and the reshaping of East and West Germany since World War II. Spring. Weinberg.

124 History of Spain (3). A survey of Spanish history from the Islamic invasion to Napoleon. Particular attention will be given to the period of the Habsburgs, 1516 - 1700. Spring. Alternate years. Headley.

125 Intellectual History of Europe, Early Period (3). The course examines the gradual erosion of and criticism within the classical Christian tradition that led to the emergence of a new mentality by the end of the seventeenth century. Two lectures, one discussion per week. Fall. Headley.

126 Modern European Intellectual History (3). The main developments in European thought from the Enlightenment to the twelfthenth century, with some attention to social context. Readings include Voltaire, Rousseau, Hegel, Marx, Toqueville, Sand, Flaubert, Nietzsche, Freud. Spring. Kramer.

127A Society and Family in Early Modern Europe (3). A survey of changes in social organization, family life, courtship practices, sexual behavior, and the relations between the economy and population that occurred in preindustrial Europe, 1500 - 1815. Spring. McIntosh.

127B War and Society in Early Modern Europe (PWAD 127B) (3). A critical examination, from the Renaissance to the Napoleonic period, of the changes in European land and naval warfare and their impact on society and government. Fall or spring. McIntosh.
128 European Social History, 1815 - 1970 (3). The social transformation of Europe from agrarian through postindustrial society, discussing population growth, family history, spread of education, class structure, social conflict, group ideologies, and mass politics, as well as everyday lives and popular lifestyles. Fall. Alternate years. Jarausch.

129 The Scientific Revolution (3). Traces the creation of scientific thought 1500 - 1700, from Leonardo to Newton, examining the various strands—Greek science, art, engineering, experimentation, occultism, etc.—woven into it. Fall. McVaugh.

130 History of Science from Newton to Einstein (3). A survey of the development since 1700 of the various branches of physical and biological science, culminating in the twentieth-century revolution in physics. Spring. McVaugh.

131 Medicine and Health in Early Modern Europe (3). Shows how the age of Shakespeare and Newton (sixteenth-seventeenth century England) fused old and new ideas about medicine and health, anticipating some of our own beliefs and practices. Fall. McVaugh. BA-level western historical perspective.


134 Medieval England (3). A consideration of England's origins, unification, and development as a national monarchy. Primary emphasis is on political, ecclesiastical, and cultural aspects. Fall. Pfaff.

135 Tudor and Stuart England, 1485 - 1660 (3). A lecture course, open to juniors, seniors, and graduate students. Fall. Harris.

136 England in the Eighteenth Century, 1660 - 1815 (3). A lecture course, open to juniors, seniors, and graduate students. Spring.

137 Great Britain in the Nineteenth Century, 1815 - 1901 (3). Emphasizes the social and economic foundations of the political, intellectual, religious, and cultural history of Victorian Britain. Fall. Soloway.

138 Great Britain in the Twentieth Century (3). Explores the economic and social foundations of British political, intellectual, and cultural history from 1901 to the present. Spring. Soloway.

140 Imperialism and the Third World (3). This course explores the processes by which nineteenth-century Imperialism set the contours of the modern world, establishing relations among societies and reconfiguring both colonial cultures and European cultures. Spring. Newbury. BA-level non-western/comparative perspective.

141 History of International Relations, 1870 - 1919 (PWAD 140) (3). Examines the interaction of European alliances, the impact of imperialism on international politics, the outbreak of World War I, and the diplomacy and peacemaking of that war. Fall. Alternate years.

142 History of International Relations, 1919 to Present (PWAD 142) (3). A study of the "new diplomacy," totalitarian foreign policy in the 1930s, the diplomacy of World War II, the Cold War, and the re-emergence of the multipolar balance of power. Spring. Alternate years.

143 History of Socialist Thought (3). An examination of the origins and development of Marxist ideas, and their application to specific historical conditions: in Germany, Russia, China, Algeria, Cuba, and modern industrial society. Spring. Griffiths.

144 The History of the Second World War (PWAD 143) (3). Origins, course, and effects of World War II, including all theaters, the impact at home, the Holocaust, the role of intelligence, and new technologies like radar, jets, and atomic bombs. Spring. Weinberg.

145 The American Colonial Experience (3). Major topics: European renaissance; founding of new societies; character and structure of institutions; thought and feeling from Cotton to Franklin; privilege and cost of empire. Fall. Nelson, Higginbotham.

146 Revolution and Nation-Making in America, 1763 - 1815 (PWAD 146) (3). Major topics: constitutional conflict in the British empire; independence and war; Confederation and Constitution; growth of political parties and nationality in a period of domestic change and international conflict. Spring. Higginbotham, Nelson.

147 Jacksonian America, 1815 - 1848 (3). The society and politics of the United States during the period dominated by President Andrew Jackson. Topics include economic development, the expansion of slavery, religion and reform, the changing roles of women, and the political movements associated with "Jacksonian democracy." Fall. Watson.

148 Civil War and Reconstruction, 1848 - 1900 (PWAD 148) (3). Focus is on causes, nature, and consequences of the Civil War. Fall. Barney.

149 United States Gilded Age/Progressive Era, 1877-1920 (3). Examines United States history around the turn of the century, concentrating on theme of "the price of progress." America's rise as an industrial and world power is explored against the background of intense political and cultural conflict. Spring. Fink.

150 United States History since 1945 (3). Diverse developments as interpreted within the framework of certain broad and open-ended themes: particularly individual freedom, social welfare, mass culture, and community. Fall and spring. Filene, Leuchtenburg.

152 United States Foreign Relations in the Twentieth Century (PWAD 152) (3). How the United States came to occupy a leading role in world affairs as a diplomatic, military, economic, and cultural power and what role that has meant to Americans and to other peoples, especially during the Cold War. Spring. Hunt.

153A The Vietnam War (PWAD 117, ASIA 153) (3). A wider-ranging exploration of America's longest war - from nineteenth-century origins to 1990s legacies, from village battlegrounds to the Cold War context, from national leadership to popular participation and impact. Fall. Hunt.

154 Intellectual and Cultural History of the United States, 1630 - 1865 (3). A survey of early American philosophical, religious, social, political, and cultural thought, with an emphasis on leading figures and movements from Puritanism and the Enlightenment to evangelicism and Romanticism. Fall. Capper.

155 Intellectual and Cultural History of the United States, 1865 to Present (3). A survey of early American philosophical, religious, social, political, and cultural thought, with an emphasis on leading figures and movements from Darwinism and pragmatism to modernism and postmodernism. Spring. Capper.

156 Popular Culture and American History (3). Study of the popular arts and entertainments of the nineteenth and twentieth centuries and the ways in which they illuminate the values, assumptions, aspirations, and fears of American society. Fall or spring. Alternate years. Kasson.

157 American Constitutional History to 1876 (3). In a classroom environment characterized by discussion, simulation, and interaction, the antecedents, formation, and interpretation of the Constitution are confronted in a broad historical matrix. Fall. Semonche.

158 American Constitutional History since 1876 (3). Using a classroom environment similar to 157, constitutional adjustments and change are related to psychological, political, social and economic factors, and to Supreme Court members. Spring. Semonche.

159 Public Religion in U.S. History (RELI 159) (3). Prerequisite, Introductory History or Religious Studies course. A study of public religion in U.S. history including the relations of religion and government, the idea of American exceptionalism and destiny, the role of religious movements. Fall. Mathews.
160 United States Women and Religion (WMST 160) (3). Prerequisites are introductory courses in religious or women's studies or U.S. history. An interdisciplinary consideration of women's roles, behavior, and ideas in the religious life of America from 1626 to 1982. Spring, Mathews.

161 Technology and American Culture (3). Technology's impact on American thought and society and the response it has engendered. Topics will include: the factory town; search for utopia; impact of Henry Ford; war and depersonalization. Fall or spring. Alternate years. Kassen.

162 The Promise of Urbanization: American Cities in the Nineteenth and Twentieth Centuries (3). A survey of the development of American cities since 1815 and their influence upon American history. Spring, Lotchin.

163 The Old South (3). Economic, cultural, and social history of the ante-bellum South. The region's political history will serve as a supporting part of the study. Spring, Watson.

164 The South since Reconstruction (3). A survey of the South during the past 100 years, covering developments in politics, economics, culture, and society. Course begins at the end of Reconstruction. Fall.

165 History of Afro-Americans to 1865 (3). Survey of Afro-American history from origins to abolition of slavery. Examination of role of Blacks in U.S. history to 1865. Focus on unique subculture of Afro-Americans. Fall, McNeil.


167 White Culture and Race Relations in the South (3). This course describes and analyzes the evolution of southern white culture with emphasis on the years since 1831. It describes Southern white culture as the result of the Black presence. Fall and spring. Williamson.

168 Women in the South (WMST 168) (3). An exploration of the distinctive themes in southern women's lives, using the evidence of history and literature. Spring, Hall.

169 African American Women's History (AFAM 169, WMST 169) (3). The course covers the history of Black women in the U.S. history from the eighteenth century to the present. It deals with such themes as work, family, community, sexuality, politics, religion and culture. Spring.

170 Introduction to Oral History (FOLK 174) (3). Introduces students to the uses of interviews in historical research. Questions of ethics, interpretation, and the construction of memory will be explored, and interviewing skills will be developed through field work. Fall, Hall.

171 Religious History of the South (3). A historical analysis of the religious life of Southerners from the Great Awakening to the present with an emphasis on how religion, social institutions, and cultural practices interact. History 21 or 22 or Religious Studies 29 recommended. Spring, Mathews.

172 Medicine and Society in America (3). A survey of major developments in the history of American medicine. Emphasis will be placed upon setting the practice of medicine as well as the experience of health and disease into broad social, cultural, and political contexts. Spring, Wailoo.

173 Oral History and Performance (COMM 161, WMST 173) (3). This course will combine readings and fieldwork in oral history with study of performance as a means of interpreting and conveying oral history texts. Emphasis on women's history. Fall, spring, Hall, Pollock.

175 History of Mexico (3). Topical approach to the history of Mexico, from pre-Columbian civilizations through the Spanish conquest and colonial system. Emphasis will be given to the nineteenth and twentieth centuries. Fall, spring, Pérez.

176A History of the Caribbean (3). Thematic approach to the history of the West Indies, with emphasis on the period between European conquest through the twentieth century. Topics include colonialism, slavery, monoculture, U.S.-Caribbean relations, and decolonization. Fall, spring, Pérez.

176B History of Cuba (3). Thematic approach to Cuban history, from conquest to the revolution. Attention is given to socioeconomic developments, slavery and race relations, the nineteenth century independence process, and the twentieth century republic. Fall, spring, Pérez.

177 History of Brazil (3). This course is concerned primarily with the creation of a new society through race mixture and culture change, and with the political and economic development of Brazil. Fall or spring. Alternate years. Chasteen.

178 The Development of Latin American Society (3). Prerequisite, some contact with Latin America through courses or personal experience. Selected aspects of Latin American social history, such as race relations, land tenure, labor systems, violence, and social upheaval. Spring. Alternate years.

180 Slavery in the New World (3). A comparative approach to the institution of slavery in North America, Latin America, and the Caribbean. Fall.

181 Intellectual History of Blacks in the Americas (3). Examines Black writers in the Americas since 1829, especially in North America and the Caribbean. Emphasizes the ideas of such individuals as DuBois, Garvey, Fanon, James, Guillen, Rodney, and Cesaire. Spring.

184 Russia and the West in the Eighteenth Century (3). A comparative approach. Centering on Russia's contacts with the West, the resulting interaction, and the efforts of Russians to define the unique nature of their own society. Spring. Alternate years. Griffiths.

185 Russia, 1796 - 1917 (3). The diplomatic, military, and ideological confrontations with the West; the decline and fall of the Russian autocracy; the evolution of reform thought and revolutionary opposition. Spring, Brooks.

186A Revolution in Russia, 1900 - 1930 (3). A close study of Russia's age of revolution from the reign of the last tsar to the turbulent Stalin Revolution of 1929, with emphasis on the revolutions of 1917. Fall, Raleigh.


187 Intellectual History of Imperial Russia (3). Interpretive lectures examine the most significant ideas and personalities and major social trends in modern Russia, emphasizing the decline of serfdom, growth of capitalism (and Marxism), and the impact of the West on Russia. Fall, Brooks.

188 The Rise and Fall of the Habsburg Empire, 1526 - 1918 (3). A study of the development of this multinational empire, its special role in the fortunes of Central Europe, and its demise under the impact of modern nationalism and great power conflicts. On demand.

190 Eastern Europe since World War II (3). An examination of the countries of Eastern Europe, their origins and development since World War II, their cohesion and conflict. Fall, Jollick.

193 Resistance Movements and Nationalism in Africa (3). An attempt to define the features of various movements in Africa during the nineteenth and twentieth centuries which sought to resist foreign domination in the cultural and political spheres. Spring, Newbury.

194A African Peasants in Historical Perspective (3). Through case studies and readings on theory, this course considers the factors of change in peasant societies in Africa: ecology, agrarian traditions, gender relations, colonial policy, capitalism, and peasant initiatives. Newbury.

194B Christianity in Africa: Priests, Pastors, and Preachers (3). This course analyzes the historical impact of missions on African societies, the redefinition of missionary practices by African Christians, and the development and varieties of Independent Christian churches in Africa. Newbury.

195A Women in the Middle East (WMST 195A) (3). Explores the lives of women in the Middle East and how they have changed over time. Focus will change each year. Spring, Shields.

196 Revolution in the Modern Middle East (3). This course will focus on revolutionary change in the Middle East during the last century, emphasizing internal social, economic, and political conditions as well as international contexts. Shields.

* Graduate students can participate in History 66 or History 67 by first consulting with the instructor and then enrolling in History 299.
Curriculum in Industrial Relations

HOWARD E. ALDRICH, Chair

Given its focus on the institutional context and inner workings of organizations, the Industrial Relations Curriculum prepares students for a variety of entry-level positions in private or public sector organizations. Students who want to specialize in human resource management should seek further training in graduate or professional school.

Bachelor of Arts in Industrial Relations

For students entering the major as first-semester juniors in fall 1985 or later, the following requirements apply:

General College:

All General College requirements must be met. Specific courses that must be taken, and that can be used to fulfill General College requirements, include:

Economics 10 (with a grade of C or higher); History 22; Mathematics 22 or 31; Psychology 10; and Sociology 10.

In addition, students are required to complete one statistics course: Economics 70, Psychology 30, Sociology 52, or Business Administration 24; and one course in social psychology: Sociology 12 or Psychology 33 (Psychology 33 can also be used to satisfy the Arts and Sciences Social Sciences perspective).

Core Requirements:

The core consists of nine courses (twenty-seven hours) grouped into four areas. Students must earn at least eighteen hours of C or higher in the core. Note that some of these courses have prerequisites — students should consult departmental listings.

A. Economics prerequisite. All students must complete Economics 100 by the end of their junior year.

B. Employer-Employee Relations (two courses required). One course must be taken from each of the following two subareas:
   1) Human Resource Management: Sociology 31 or Psychology 148.
   2) Social Interaction and Conflict in the Workplace: Sociology 143; Psychology 186, 187, or 188; or Communications 23 or 123.

C. Human Resources and Work (two courses required):
   1) Economics 190.
   2) Sociology 127.

D. The Institutional Context of Work (four courses required):
   1) Economics 145.
   2) Sociology 110.
   3) Two courses chosen from the following three offerings:
      a. either Economics 135 or History 64;
      b. either Economics 193 or History 65;
      c. Sociology 115.

Program for Honors Work

A student may, as a result of distinguished work (3.2 CGPA or above), be awarded a degree with honors or highest honors. This requires completion of a senior honors thesis. Interested students should contact the Industrial Relations Office for more information. Honors students should enroll in the following two courses (INDR 98 will fulfill one of the course requirements in D3 above):

Course Descriptions

INDR 98 Honors Fall Course (3). Directed independent research under the supervision of a faculty adviser who teaches in the Industrial Relations Curriculum Staff.

INDR 99 Honors Spring Course (3). Prerequisite, INDR 98. Preparation of an honors thesis and an oral examination on the thesis Staff.

Curriculum in International Studies

DAVID GRIFFITHS, Chair

Rosa Perelmuter, Adviser
Julia Mack, Adviser

Globalization of the economy, cross-cultural relations, international media, ecological crises, and political transformations are all making international studies more important today. The Curriculum in International Studies offers an interdisciplinary program of study focusing on these and many other issues. It draws on courses throughout the social sciences and humanities, and offers students the chance to concentrate on any area of the world or an issue of global significance.

Courses deal with topics as diverse as the relations of the United States to other countries around the world; peoples and cultures of Europe, Latin America, Africa, or Asia, international economics, human rights, problems of poverty in the Third World, and international environmental issues.

Students prepare for careers in business, diplomacy, international aid, economic development, and other forms of public service. The INTS major is also excellent preparation for graduate school in one of the social sciences, in professions such as law, business, and journalism, or in international affairs and area studies. About 250 juniors and seniors major in international studies.

Bachelor of Arts with a Major in International Studies

International studies (INTS) majors must complete all requirements of the General College. They must also show proficiency in one modern foreign language at the sixth semester level when possible, or if not, in one at the fourth and another at the second semester level.

In addition to foreign languages, international studies majors must take INTS 77 (Global Issues) and complete at least ten more upper-division courses in the social sciences
and relevant humanities. These must include courses in at least three social science disciplines. Five of these courses must concentrate on one of the following:

A. a socio-geographic or cultural area  
   (e.g., East Asia, Europe, Africa, Latin America)
B. a combination of two or more areas  
   (e.g., the Hispanic world, the Third World)
C. a global issue that transcends specific areas (e.g., economic development, ecological problems, population dynamics, or human rights). All such focuses must be approved by the curriculum through its appointed advisers.

Finally, INTS majors must complete at least five courses in a social science discipline. These five courses must follow specific guidelines set by the curriculum in consultation with the given department.

No courses fulfilling major requirements may be taken pass/fail.

**Recommendations**

The curriculum urges that in addition to fulfilling requirements, INTS students continue study of foreign language to a level as close as possible to fluency. All INTS students also should make every effort to include a study abroad program in their undergraduate education, preferably in their sophomore or junior year.

**Honors**

Student who wish to submit a thesis for honors in international studies should enroll in INTS 90 and 91 as two of their eleven required courses. Consent of the curriculum adviser is required.

**Course Descriptions**

77 Global Issues in the Twentieth Century (3). Survey of international social, political, and cultural patterns in selected societies of Africa, Asia, America, and Europe, stressing comparative analysis of twentieth-century conflicts and change in different historical contexts. Fall, spring. BA-level non-western/comparative perspective, cultural diversity perspective

80 Social Theory and Cultural Diversity (3). Introduction to basic paradigms of thinking about cultural difference (race, gender, nationality, religion, etc.), encouraging students to examine how those paradigms shape how we act, think, and imagine as members of diverse cultures. Fall and spring. Staff.

90 Honors in International Studies (3). Directed independent research leading to the preparation of an honors thesis. Fall and spring. Tiedemann, Coelanis.

91 Honors in International Studies (3). Completion of the honors thesis and an oral examination of the thesis. Fall and spring. Tiedemann, Coelanis.

92H Current Topics in International Studies (Var.). An interdisciplinary approach to the study of the background, current status, and future prospects for one of a series of global issues, such as the nuclear age, the environment, technological transition. Spring. Ulin.

93 Great Decisions (1). Eight evening guest lectures, with a discussion session after each, on eight issues in current foreign policy. May be taken more than once. Spring. Ulin.

99 Independent Study (Var.). Reading and research on special topics in international studies. Permission of instructor and advisor required.

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**Latin**

*(See Classics)*

**Latin American Studies**

EVELYN HUBER, Director

**Professors**

Richard Biltsborrow (Biostatistics/Carolina Population Center), Lucia Binotti (Romance Languages), Donald Brockington (Anthropology), Sarah Chambers (History), John Chasteen (History), Fred Clark (Romance Languages), Richard Cole (Journalism and Mass Communication), Patrick Conway (Economics), Altha Cravey (Geography), Marisol de la Cadena (Anthropology), Richard Elam (Radio, TV, and Motion Pictures), Alfred Field (Economics), Kaja Finkler (Anthropology), William Glaze (Environmental Sciences), Christopher Goertzen (Music), Jonathan Hartlyn (Political Science), Audrey Heinig-Boynton (Education), Evelyne Huber (Political Science), William Ilgen (Latin American Bibliographer), C. L. Kendall (Business), Dana Loomis (Public Health/Epidemiology), Colin Palmer (History), William Peck (Religious Studies), Rosa Perelman (Romance Languages/Spanish), Mónica Rector (Romance Languages), Seth Reice (Ecology), Alicia Rivero-Potter (Romance Languages), María Salgado (Romance Languages), Lars Schoultz (Political Science), Robert Stevenson (Journalism and Mass Communication), Adam Versenyi (Dramatic Art), David Whisnant (English/ American Studies/Folklore), Thomas Whitmore (Geography), Bruce Winterhalder (Anthropology), Cecilia Zapata (Maternal and Child Health).

**Professors Emeriti**

Julia Crane (Anthropology), Federico Gil (Political Science), Henry Landsberger (Sociology).

The University of North Carolina at Chapel Hill has a long and distinguished tradition of scholarly interest in Latin America. Courses in the region's languages, history, politics, geography, and the social life were offered by the beginning of the twentieth century, and in 1915 were coordinated in special curriculum. As a result of continued growth of interest in Latin America among faculty and students, the Institute of Latin American Studies (ILAS) was created in 1940 to coordinate campus activities. The institute thus became one of the first educational centers in the United States specifically dedicated to the study of Latin America.

Over the ensuing half-century, the institute has developed into a major center of scholarship and teaching on subjects related to Latin America. Today the institute’s major functions are:

(I) to encourage and stimulate study and research on Latin America at UNC-Chapel Hill;
(2) to serve as a campus medium, for interdisciplinary communication on Latin America, including the sponsorship of a wide variety of campus activities that bring together interested faculty and students from a large number of academic disciplines; and

(3) to promote the exchange of senior scholars and students, and to encourage close collaborative relationships between the University and institutions of higher learning in Latin America and the Iberian Peninsula.

After more than a century of information cooperation, in the late 1980s UNC-Chapel Hill joined with nearby Duke University to create the Duke-UNC Program in Latin American Studies. The Duke-UNC Program enables the two universities to offer an exceptionally broad range of courses and provide supplementary educational opportunities that neither institution could offer separately.

In 1990 the Duke-UNC Program received a major grant from the Andrew W. Mellon Foundation for additional cooperation. This enabled the Duke-UNC Program to offer a structured program of cross-campus teaching, bringing a Duke faculty member to the UNC campus each semester in return for a UNC-Chapel Hill faculty member teaching at Duke. In addition, research and training working groups on a various topics such as culture, politics, economics, the environment, health, inter-American relations, and public opinion meet throughout the academic year, bringing students and faculty together to conduct research. Undergraduate participation in the working groups is encouraged.

A combined seminar brings together undergraduate students from both Duke and UNC. The Latin American Research Seminar permits juniors and seniors majoring in Latin American Studies at UNC-Chapel Hill or Comparative Area Studies at Duke to receive training and conduct research as members of one of the working groups mentioned above.

In 1991 the Duke-UNC Program was designated a National Resource Center under Title VI of the Higher Education Act. As one of fourteen such centers nationwide, the Duke-UNC Program is provided with resources that significantly enrich the curriculum. In addition to encouraging research and teaching of Latin American subjects, the Duke-UNC Program is a campus medium for interdisciplinary communication of information related to Latin American Studies, including the sponsorship of a various gatherings on both campuses—Latin American guest lectures, seminars, films, slide shows, and luncheons—that bring together faculty and students from different disciplines. The Duke-UNC Program promotes the exchange of scholars and students, and encourages close relations among UNC-Chapel Hill, Duke, and institutions of higher learning in Latin America.

The University’s long-standing commitment to the study of Latin America is reflected in its library collections, which are rich in resources of Latin American literature, history, and political science. Extremely valuable materials can be found in the rare books and the manuscripts collections. Complementing the resources on Latin America are the library’s strong collections in Spanish and Portuguese literature, history, and culture. In addition, the University library maintains a cooperative program for the acquisition and sharing of Latin American materials with nearby Perkins Library at Duke University, a program that vastly expands the comprehensiveness and availability of local resources for the study of Latin America. The joint collections of the Duke and UNC-Chapel Hill libraries are the only major holdings of research-level Latin American resource materials in the Mid-South, containing 7.6 million volumes.

Each semester the institute distributes a list of Latin American-related course offerings from the Duke-UNC Program. More than one hundred courses dealing directly with Latin American Studies are offered by the Duke-UNC faculty members in their respective disciplinary departments. UNC-Chapel Hill students are encouraged to enroll in Latin American Studies courses at Duke.

The Program

The degree offered is a B.A. in Latin American Studies.

General College

All General College perspective requirements apply. Students at the General College level are strongly encouraged to enroll in LTAM 40, an interdisciplinary introductory course offered in the fall.

The institute recommends the following courses for fulfillment of the General College perspective requirements to students interested in majoring in Latin American Studies.

Foreign Language

May be completed in two semesters through enrollment in intensive courses: PORT or SPAN 1-4

Aesthetic Perspective

Literature

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
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<tbody>
<tr>
<td>PORT 35</td>
<td>Modern Brazilian Literature in English Translation</td>
</tr>
<tr>
<td>PORT 40</td>
<td>Portuguese and Brazilian Fiction in Translation</td>
</tr>
<tr>
<td>SPAN 21</td>
<td>Introduction to Spanish and Spanish American Literature</td>
</tr>
<tr>
<td>SPAN 35</td>
<td>Contemporary Latin American Prose</td>
</tr>
<tr>
<td>SPAN 40</td>
<td>Masterpieces of Spanish Literature in Translation</td>
</tr>
<tr>
<td>SPAN 46</td>
<td>Cervantés in English Translation</td>
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</tbody>
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Social Science Perspective

(two courses from different departments)

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
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<tbody>
<tr>
<td>ANTH 42</td>
<td>Folk Cultures in the Modern World</td>
</tr>
<tr>
<td>ECON 10</td>
<td>Introduction to Economics</td>
</tr>
<tr>
<td>GEOG 20</td>
<td>World Religions</td>
</tr>
<tr>
<td>POLI 41</td>
<td>Introduction to Government in the United States</td>
</tr>
<tr>
<td>POLI 52</td>
<td>Introduction to Politics in Western Europe</td>
</tr>
<tr>
<td>SOCI 52</td>
<td>Introduction to Politics in Western Europe</td>
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</tbody>
</table>
Western and Non-Western Comparative Perspective

Pre-1700 Western History
POLI 56 Contemporary Latin American Politics
HIST 24 Latin America under Colonial Rule
HIST 25 Latin America since Independence

HIST 90 Topics in History
HIST 91 Independent Studies in History
HIST 174 Pre-Columbian and Colonial Mexico
HIST 175 History of Mexico since Independence
HIST 176 Inter-American Relations
HIST 177 History of Brazil
HIST 178 The Development of Latin American Societies
HIST 180 Slavery in the New World

Language-Literature Sequence

Portuguese
PORT 35 Modern Brazilian Literature in Translation
PORT 40 Portuguese and Brazilian Fiction in Translation
PORT 51 Composition and Conversation
PORT 53 Luso-Brazilian Civilization
PORT 103 Survey of Brazilian Literature: I
PORT 104 Survey of Brazilian Literature: II
PORT 135 Brazilian Drama

Spanish
SPAN 35 Contemporary Spanish American Prose Fiction in Translation
SPAN 38 Spanish American Culture and Civilization: Mexico, Central America, and the Andes
SPAN 54 Spanish American Culture and Civilization: The River Plate and the Caribbean Countries
SPAN 61 Advanced Conversation and Composition
SPAN 73 Survey of Spanish American Literature
SPAN 81 Spanish and Spanish American Poetry
SPAN 87 Contemporary Spanish American Prose
SPAN 113 Spanish American Literature: Colonial and Nineteenth Century
SPAN 114 Spanish American Literature: Modernism to the Present
SPAN 120 Women in Hispanic Literature

Dramatic Arts and Music Sequence
DRAM 86 Latin American Theater

II. Social Sciences Concentration

Journalism and Political Science Sequence

Journalism
JOMC 146 International Communications
JOMC 191 Journalism and Mass Communication in Mexico and Cuba

Political Science
POLI 56 Contemporary Latin American Politics
POLI 56H Contemporary Latin American Politics for Honors
POLI 87 Latin America and the United States in World Politics
POLI 116 Politics of Mexico, Central America, and the Caribbean
POLI 120 Politics of South America
POLI 127 Democracy and Development in Latin America
POLI 140 International Political Economy
POLI 147 The United States and Latin America

College of Arts and Sciences

All College of Arts and Sciences perspective requirements apply.

The major in Latin American Studies requires the completion of ten courses, including an interdisciplinary core seminar (LTAM 90), plus a minimum level of proficiency in Spanish or Portuguese.

The Curriculum in Latin American Studies is divided into two concentrations, humanities and social sciences. These concentrations are further divided into sequences. To ensure depth in a single area of Latin American Studies, four of the ten courses required for the major must be selected from one of the sequences. To ensure breadth of exposure to other areas of Latin American studies, two courses must be selected from each of three other sequences.

For students to decide to write an honors thesis, an independent honors research (LTAM 91) may be used as one of the ten courses, with credit given in the sequence that best describes the thesis content. A second honors research course (LTAM 92) will count as an eleventh course in the major.

In addition to the ten required courses, each major must complete either Spanish 1-4 or Portuguese 1-4 plus one higher-level course, not including courses in translation. While this is a minimum requirement, majors are encouraged to work toward proficiency in both Spanish and Portuguese. Many language courses may be counted as Perspective courses, thereby satisfying College of Arts and Sciences requirements.

Listed below are the most commonly offered courses in each sequence. Please note that not all the courses on Latin American topics are listed here. Majors should check the Curriculum Course List each semester for new offerings, as well as for a complete listing of Latin American courses at Duke.

Major Concentration and Sequences

I. Humanities Concentration

History Sequence
HIST 24 Latin America under Colonial Rule
HIST 25 Latin America since Independence
HIST 80 Women and Gender Issues in Latin America
HIST 81 Revolutionary Change in Latin America
HIST 82 An Introduction to the Society and Culture of Latin America: History, Literature, and Cinema
**Anthropology-Economics-Geography Sequence**

**Anthropology**

ANTH 42 Folk Cultures in the Modern World
ANTH 50 Anthropological Perspectives on the Third World
ANTH 62 Population Anthropology
ANTH 127 Aboriginal Cultures of Mexico and Central America
ANTH 131 Archaeology of South America
ANTH 132 Latin American Cultures
ANTH 133 Peoples of the Caribbean
LTAM 160 Intensive Yucatec Maya (one to six credit hours)

**Economics**

ECON 158 Health Economics
ECON 161 International Economics
ECON 162 Topics in International Economics
ECON 163 Economic Development
ECON 165 Economics of Population
ECON 199 Economic Development in Latin America

**Geography**

GEOG 30 Development Issues of the Third World
GEOG 159 Latin America

**Graduate School and Career Opportunities**

Prospective majors should contact the administrative assistant of the institute for information concerning career and graduate school opportunities.

**Special Opportunities**

**Study Abroad:**

One of the most attractive aspects of the major in Latin American Studies is the opportunity for students to broaden their knowledge of Latin America and the Iberian tradition through participation in one of the University's study abroad programs. Living and studying in Latin America is an experience that all majors should consider; however, study abroad is not a requirement of the major. The College of Arts and Sciences offers programs at the Universidad de Belgrano in Buenos Aires, Argentina, at the Universidad San Francisco de Quito, Ecuador, and at the Universidad Nacional Autonoma de Mexico in Mexico City. The Department of Romance Languages also conducts a program at Seville, Spain.

Students interested in these opportunities should contact the study abroad officer in the Office of International Programs, Caldwell Hall.

**Intensive Yucatec Maya:**

The Duke-UNC Program in Latin American Studies offers in the summer a three-part intensive introduction to modern Yucatec Maya, with a secondary focus on ancient and colonial Maya literature. Students receive six hours credit.

I. Classroom Instruction: The first part consists of four weeks of intensive classroom instruction and conversational practice (six hours a day, five days a week with additional evening practice). Conversation, grammar, and classical Yucatec texts are featured, and students have the opportunity to focus individually on the acquisition of skills of special interest.

II. Hieroglyphics Workshop: The second part consists of a weekend workshop focusing on the structure and content of the ancient Maya writing system with comparison to Yucatec grammar and literature. This workshop is held at the Duke University Museum of Art, which houses one of the nation's largest collections of pre-Columbian and especially Mayan artifacts.

III. Field Study: The third part involves a two-week field orientation in Yucatan. Students live in the community of Opichén, Yucatan, eighty-five kilometers from Mérida, where they are in contact with monolingual Maya families and share in their daily lives. Students also spend time in the city of Mérida where they continue language classes conducted by native Yucatec speakers and participate in seminars and lectures led by distinguished Yucatecan historians, ecologists, and anthropologists. Special field trips introduce participants to the rich pre-Hispanic and colonal heritage of the area. Summer. MacLeod, Reents-Budet, and Vermont-Salas.

**Independent Study**

Any student may enroll in the institute's course in individual study (LTAM 80) with the permission of the institute director and the agreement of the institute's faculty member who will supervise the student's study project. This course may be used to fulfill the requirements of the major, and is often linked to undergraduate grants for summer research travel (see Awards).

**Awards**

Each year the institute uses funds from its endowment income to recognize superior achievement by its students and to encourage students to travel and conduct research in Latin America. Awards are given for the best honors thesis in Latin American studies and for the best master's thesis on a topic related to Latin America. A number of modest travel and research grants are also awarded to graduate and undergraduate students who plan to conduct original research in Latin America. One of the awards is named in honor of Federico G. Gil, Kenan Professor Emeritus of Political Science and director of the institute from 1959 to 1983. Another travel award is named in honor of Julia Crane, Professor Emerita of Anthropology.

**Honors Program**

Latin American Studies majors with an overall grade point average of 3.25 are invited to pursue a degree with honors by writing an honors thesis during their senior year. Each honors thesis is written under the direction of an appropriate faculty adviser; when completed, the thesis
must be defended orally before an examining board of institute faculty members. Honors candidates may substitute the two honors courses (LTAM 91 and 92) for two of the eight courses in their primary concentration.

For more information contact Josie McNeil (Administrative Assistant), Professor Federico G. Gil (Kenan Professor Emeritus), Institute of Latin American Studies, CB 3205, 310-316 Hamilton Hall, 962-2418, or Rosa Perelmutter, Associate Professor, Romance Languages Department, Adviser, College of Arts and Sciences, 962-1164.

Curriculum in Leisure Studies and Recreation Administration

KARLA A. HENDERSON, Chair

Professor
Karla A. Henderson.

Associate Professor
M. Deborah Bialeschki.

Assistant Professor
Jan S. Hodges

Research Associates
Karen Luken, Elizabeth Sorenson.

Professors Emeriti

Recreation and leisure are inextricably tied to personal and community quality of life. As a profession in the field of human services, the Curriculum in Leisure Studies and Recreation Administration focuses on people, with an emphasis on underserved and diverse populations, and their opportunities to pursue recreational services.

The Curriculum in Leisure Studies and Recreation Administration is committed to educating individuals who 1) can function effectively as professionals in the field of recreation and leisure services and 2) understand and advocate for the value and the importance of leisure in their lives and the lives of others in the community.

The curriculum’s pedagogical orientation reflects the social and behavioral roots of the field of recreation and leisure services. The curriculum faculty encourage the preparation of the recreation professional through a broad interdisciplinary-based education coupled with practical work experience. This professional education enables the student to understand and relate to a changing social order as well as to assume professional positions in public, private, and commercial recreation and other human services and health care agencies.

The curriculum faculty place importance on the consideration of the social and psychological values of leisure activities, the relationship between quality of life and leisure choices, the analysis of play behavior, and the right of all individuals to leisure.

The Curriculum in Leisure Studies and Recreation Administration offers courses as a part of the general elective process of the University, as well as courses designed primarily for majors and minors. The curriculum’s program of study is accredited by the National Recreation and Park Association/American Association of Leisure and Recreation’s Council on Accreditation.

Students interested in Leisure Studies and Recreation Administration should declare this major during their sophomore year. This declaration enables them to take some of the courses suggested by the curriculum while enrolled in the General College.

Required and Elective Courses

The required core courses are LSRA 70, 120, 130, 150, 160, 180, and 181. One elective is required for a total of twenty-four hours, not including LSRA 10, which is required and prerequisite to most LSRA 100-level courses. LSRA majors must earn a C or better in LSRA 10. They must also take one course in statistics (STAT 11 or its equivalent), a basic course in Sociology and Psychology and, in accordance with the regulations of the College of Arts and Sciences, they must earn eighteen hours of C or better in their major course work.

In addition to the required courses, students are expected to take classes in art, business administration, dramatic art, economics, English, music, physical education, political science, psychology, sociology, and speech. A list of suggested courses in the LSRA Undergraduate Program Handbook can be found in the curriculum office.

Minor in Recreation Administration

The minor consists of five courses. Three courses are required:

LSRA10  Introduction to Leisure Services
LSRA70  Special Recreation Services
LSRA120  Program Planning for Recreation Services

The two remaining courses may come from other LSRA courses (below the 200 level) but may not include:

LSRA160  Administration of Recreation Spaces
LSRA176  Clinical Skills in Therapeutic Recreation
LSRA177  Disabling Conditions and the Practice of Therapeutic Recreation
LSRA180  Supervised Field Training in Recreation
LSRA181  Supervised Field Training in Recreation

Course Descriptions

10 Introduction to Leisure Services (3). An introduction to the field of leisure services and its various elements, developed from a historical perspective. The course surveys the park and recreation movement, the leisure service delivery system, and the theoretical and conceptual basis of that system. Fall, spring, Bialeschki.
40 Outdoor Recreation and Environmental Issues (3). A survey course taught from a psychosocial perspective addressing the roles of public and private agencies in meeting increased demand for outdoor recreation. Emphasizes the implications of environmental awareness on outdoor recreation. Spring. Bialeschi. Arts and Sciences social science perspective.

70 Special Recreation Services (3). An analysis of the problems confronting disadvantaged individuals and groups including the aging, economically disadvantaged, mentally retarded, physically disabled, and youth. Specific attention is given to meeting their leisure needs in community settings. Fall and spring. Hodges.

96 Independent Studies in LSRA (Var.). Individual readings, research, and/or field study of a recreation issue, problem, service system, or activity pattern. The course may take the form of an independent study or seminar depending upon student interests and enrollment. Staff.

101 Women, Work, and Leisure (3). Implications of the relationship between women and leisure from a lifestyle perspective, and an analysis of the changing role of women and changing leisure concepts from a feminist perspective. Fall and spring. Bialeschi. Arts and Sciences social science perspective.

111 Play in America (3). A study of play as a personal and cultural phenomenon. Consideration is given to the impact that religion, philosophy, social structure, economics, technology, and education have had on the valuing of play in America. Fall. Henderson. Arts and Sciences social science perspective.

112 Leisure in a Diverse Society (3). An analysis of diverse populations and the meaning and impact of leisure on the lives of these individuals. Race, class, gender, culture, age, disability, employment, and sexual orientation will be addressed related to implications for leisure. Fall. Henderson. Arts and Sciences social science and cultural diversity perspective.

120 Program Planning for Recreation Services (3). A study of the principles of planning recreation programs and the factors which affect its implementation and functioning. Fall. Bialeschi.

130 Introduction to Group Dynamics and Community Leadership (3). An analysis of the techniques, methods, and motives of group and community leaders. Special attention is focused upon the roles of organizational structure, personnel policies, and inservice training programs. Fall and spring. Henderson.

140 Recreation Spaces: Their Design and Use (3). Prerequisite or corequisite, LSRA 10. Principles of planning recreation areas and facilities and the relationship of human needs to environmental resources. Spring. Bialeschi.


160 Administration of Recreation Services (3). Analysis of recreation systems from the standpoint of organization, administration, finances, training, legislation, public relations, and coordination of community resources. Fall. Henderson.

175 Introduction to Therapeutic Recreation Services (3). History and philosophy of therapeautic recreation. A survey of basic counseling/interational styles, clinical and administrative skills, and inter/intra disciplinary approaches in a variety of clinical settings. Fall. Hodges.

176 Clinical Skills in Therapeutic Recreation (3). Development of helping skills for the practice of therapeutic recreation emphasizing rationale, techniques, and role responsibilities of therapeutic recreation in the area of leisure education. A five-hour practicum is required. Fall. Hodges.

177 Disabling Conditions and the Practice of Therapeutic Recreation (3). Prerequisite, LSRA 175 and LSRA 176. A study of the relationship between various disabling conditions and the practice of therapeutic recreation. Spring. Hodges.

180/181 Supervised Field Training in Recreation (3 each). Prerequisites, three or more courses in recreation; students will have an opportunity to receive varied practical on-the-job experience in one of many agency types. Hodges.

199 Selected Issues Seminar (Var.). Current issues, techniques, and research of a topical short-term nature are the focus of these seminars.

Department of Linguistics

CRAIG MELCHERT, Chair

Professors
Randall Hendrick, H. Craig Melchert, Máriá Tsiapera.

Associate Professor
Gert Weibelthu.

Assistant Professors
Megan Crowhurst, Henry Gerfen.

Courses in the department are offered for the general student and for those who wish to receive the B.A. in linguistics. Courses in linguistics are intended to open up systematic perspectives on the nature of human language by means of detailed studies of language structure and language change, the sound system of language, and the syntactic system of language.

Successful completion of the undergraduate major in linguistics leads to the award of the degree of Bachelor of Arts. The major is designed to provide a fundamental understanding of modern linguistics for the student seeking a general education in the liberal arts as well as for the student preparing for graduate study. Students interested in the linguistics major must consult with the department undergraduate adviser.

With respect to the General College requirements in foreign language and mathematics, the following recommendations should be noted:

1) Students choosing to satisfy the requirement by taking a language other than the one used to meet the entrance requirement are strongly encouraged to satisfy the General College foreign language requirement with a non-Indo-European language.

2) The basic requirement in Mathematical Science should be met by a selection from the following: PHIL 21, COMP 14, MATH 22, STAT 11.

Linguistics majors should fulfill the General College Social Science perspective with LING 30, which is a prerequisite for all linguistics courses listed below. LING 30 may not be counted as one of the seven courses required for the major.

Majors are required to take the introductory series LING 60, 61, and 62, plus LING 83 and at least three additional linguistics courses numbered 50-199, excluding 100. (LING 100 is closed to students taking the LING 60, 61, 62 sequence.)

Students majoring in linguistics are expected to complete
at least through level four of a foreign language and are encouraged to study more than one language.

Students majoring in linguistics may either concentrate entirely in linguistics, following an approved program of linguistics courses beyond those listed above, or they may elect to pursue a program of study which combines the courses above with an approved sequence of courses in a field related to linguistics. Suggested second-field options are: linguistic anthropology, computer processing of language data, psychology of language, philosophy of language, sociology of language, study of a particular language or language family, applied linguistics. The second-field option will be planned in consultation with the student’s adviser. There is a special track for pre-Speech and Hearing Sciences students. For further information see Professor Gerfen.

Minor in Linguistics

The undergraduate minor in linguistics consists of four linguistics courses numbered 60 or higher. Two of these courses must be selected from LING 60, 61, and 62. In order to fashion a coherent program of study that complements the student’s major, the Department of Linguistics encourages students to select the remaining two courses in consultation with the department undergraduate adviser.

Course Descriptions

9 Freshman Seminar (3). Topics vary. Fall and spring. Staff.

30 Introduction to Language (3). A survey of the many aspects of human language, including the history of language, similarities and differences among languages, language and culture, dialects, writing systems, child language acquisition, animal "languages," and the use of computers in analyzing languages. Linguistic methods used to describe and relate languages. Fall and spring. Staff.

35 Language and Communication (See Philosophy 35) (3).

60 Sound Patterns in Language (3). Prerequisite, Linguistics 30 or consent of instructor. Introduction to the analysis and description of phonological systems. Includes some preliminary training in phonetics. Fall. Crowhurst.

61 Introduction to Transformational Grammar (3). Prerequisite, Linguistics 30 or consent of instructor. Introduction to the goals and methods of transformational analysis, using English primarily, but examining how these techniques can be used to describe syntactic processes in other languages. Spring. Hendrick, Webeiluth.

62 Linguistic Variation and Language Change (3). Prerequisite, Linguistics 30 or consent of instructor. Introduction to the analysis and description of language change, relationships among languages, and types of linguistic structure. Spring. Tsiapera.

70 Issues in Linguistics (3). Prerequisite, Linguistics 30 or consent of instructor. In-depth treatment of a selected issue or topic in linguistics. Topic will vary with the instructor. Course may be taken more than once when the topic varies. Fall or spring. Staff.

71 Language and Computers (Computer Science 71) (3). Prerequisite, Linguistics 30. Uses simple linguistic problems to introduce students to the use of programming languages especially suited to analyze and process natural language on the computer. No prior programming knowledge is presupposed. BA-level social science perspective. Fall. Webeiluth.

72 Language and Power (Anthropology 84, Women’s Studies 71) (3). This course provides an overview of language and power studies. Issues: sexist and sex-neutral language; languages of subcultures defined by gender, sexual orientation, ethnicity; hate speech; "politically correct" language. Fall. Spring. Crowhurst. BA-level social science perspective and cultural diversity requirement.

75 Language and Nationalism (SLAV 75) (3).

83 Linguistic Structuralism: Sources and Influences (3). Linguistic structuralism as a background for modern theories of language. Tsiapera.

97, 98 Honors (6). See the program for honors in the College of Arts and Sciences, and the department honors adviser. Fall and spring. Tsiapera.

100 Introduction to General Linguistics (Anthropology 179) (3). An introduction to the scientific study of language. The nature of language structure. How languages are alike and how they differ. Fall. Melchert.

101 Introduction to Historical and Comparative Linguistics (Anthropology 181) (3). Theories and methods of historical and comparative linguistics, with emphasis upon the Indo-European family. Spring. Melchert.

104 Symbolic Logic (See Philosophy 101) (3).

105 Computer Organization (See Computer Science 120) (3).

106 Greek Dialects (See Greek 106) (3).

107 Advanced Structure of a South Slavic Language (See Slavic 107) (3).

108 Advanced Structure of a South Slavic Language (See Slavic 108) (3).

109 Cognitive Linguistics (See Slavic 109) (3).

110 Philosophy of Language (See Philosophy 110) (3).

115 Topics in Linguistics (3). Directed readings on linguistic topics not covered in specific courses. Fall and spring. Staff.

120 Linguistic Phonetics (Anthropology 180) (3). Introduction to the general principles of linguistic phonetics; anatomy of vocal tract, physiology of speech production, universal phonetic theory. Practice in the recognition and transcription of speech sounds. Fall. Crowhurst.


127 Morphology (3). Prerequisite, Linguistics 30, 100, or permission of instructor. Crosslinguistic investigation of internal word structure: inflection and derivation, word formation rules versus affixation, autosegmental morphology, morpholexical and morphophonemic rules, and the interaction of morphology with phonology and syntax. Fall. Hendrick, Webeiluth.

130 Syntax I (Anthropology 190) (3). Prerequisite, Linguistics 100 or equivalent, or consent of instructor. Methods and theory of grammatical analysis within the transformational generative framework. Special emphasis on analyzing syntactic and semantic structures of English. Fall. Hendrick, Webeiluth.


136 Modern English Grammar (See English 136) (3).

139 Language of Time (3). Prerequisite, Linguistics 30, 100, or permission of instructor. The representation of time and temporal relations in natural languages. Cross-linguistic study of tense and aspect distinctions, modality, temporal adverbials, temporal anaphora, and sequences of tenses. Hendrick.

140 Mathematical Linguistics (3). Introduction to topics in logic, set theory, and modern algebra with emphasis on linguistic application. Automata theory and the formal theory of grammar with special reference to transformational grammars. No previous mathematics assumed. On demand. Staff.

142 Indo-European Culture and Society (See Folklore 143) (3). Survey of nonmaterial aspects of Indo-European society recoverable by linguistic reconstruction, including law, religion, economics, poetics. Review of the Urheimat problem. No knowledge of comparative grammar is assumed. On demand. Melchert.

145 Language and Mind Linguistics and the Brain (3). Prerequisite, Linguistics 30, 100, Philosophy 35, English 36, or permission of instructor. The course treats the relationship among linguistics, artificial intelligence, neurobiology, cognitive psychology, and the philosophies of mind, language, and science. On demand.

147 Language Deficits and Cognition (3). Prerequisite, Linguistics 30 or consent of instructor. Survey of the linguistic properties associated with aphasia, autism, Williams Syndrome dyslexia, and schizophrenia. Emphasis on the implications of these conditions for theories of mind. Spring. Hendrick.


151 Introduction to Indo-European: Morphology (3). Prerequisite, Linguistics 150 or permission of instructor. Introduction to the major morphological categories in the Indo-European languages and their development from the proto-language. Spring. Alternate years. Melchert.

154 History of the Spanish Language (See Spanish 126) (3).

155 Spanish Phonetics and Phonology (See Spanish 145) (3).

156 The Structure of Modern Spanish (See Spanish 146) (3).

160 The Structure of Early English (3). Prerequisite, permission of instructor. Topics in the linguistic structure of old, middle, and early modern English in the light of theories of phonology, morphology, and syntax. Topics vary. Spring. Staff.

161 Native Languages of the Americas (3). Prerequisites, Linguistics 30 or 100 or permission of instructor. This course explores the phonological and morphological structure of selected Amerindian languages indigenous to the Americas. Emphasis is on the linguistic analysis of original as well as published primary data. Fall, spring. Crowhurst, Cerfên.

162 The Structure of Chinese (Chinese 162) (3). Prerequisite, permission of instructor. Introductory linguistic description of Modern Mandarin Chinese. For students in linguistics with no knowledge of Chinese, and students of Chinese with no knowledge of linguistics. Melchert.

164 History of the French Language (See French 126) (3).

165 French Phonetics (See French 145) (3).

166 Structure of French (See French 146) (3).

170 Sociolinguistics (See Anthropology 171) (3). Prerequisite, Ling 30, 100, or permission of instructor. Introduction to the study of language in relation to society; variation as it relates to socioeconomic status, region, gender, the social motivation of change; language and ethnicity; language maintenance, planning, shift. Robege, King.

172 Pidgins and Creoles (See German 172, Anthropology 192) (3).

175 Language in Politics (3). Examines language as a political issue in the nineteenth and twentieth centuries. Emphasis placed on American and British politics but attention to one other national context as well. Hendrick.

183 History and Philosophy of Linguistics (3). Linguistic theories from classical times to the present with special emphasis on the origins of contemporary theories. Fall. Tsiapera.

184 Language and Culture (See Anthropology 184, Folklore 184) (3).

Department of Marine Sciences

JOHN M. BANE JR., Chair

Professors

Associate Professors
Timothy J. Bralower, Niels Lindquist, Richard A. Luettich.

Assistant Professors
Marc J. Alperin, Carol Arnosti.

Research Assistant Professor
Thomas J. Shay.

Adjunct Professors
Frederick Bingham (UNC-W), Miles A. Crenshaw (Dental Research Center), Max H. Hommersand (Biology), William M. Kier (Biology), Kenneth J. Lohmann (Biology), Joseph Pawlik (UNC-W), Martin H. Posey (UNC-W), Stanley Riggs (ECU), John J. W. Rogers (Geology), Stephen A. Skrabal (UNC-W), Mark D. Sobsey (Environmental Sciences and Engineering), Arthur J. Spivack (UNC-W), Robert H. Stavn (UNC-G), Joan D. Willey (UNC-W).

The Department of Marine Sciences provides instruction and conducts research in biological, chemical, geological, and physical oceanography. Although it emphasizes graduate training, the department offers basic course work, opportunities for supervised practical experience, and an academic minor to all advanced undergraduates. The minor is designed to allow students access to curriculum courses, facilities, and advisers in order to develop marine specializations related to their majors and to prepare for postgraduate study in marine sciences or a related field. The department's director of undergraduate studies serves as primary contact for students participating in the minor program. Student advisement and approval of equivalent courses are handled through the director's office. Introductory courses are also offered for all undergraduates who are interested in marine sciences. These courses (e.g., MASC 12) are available through the regular University, Continuing Studies, and the Summer School.
Minor in Marine Sciences

To fulfill the requirements for the Marine Sciences minor, a student should take four courses, as follows:

1) A course emphasizing global oceanic processes (choose one of the following):
   MASC 12 The Marine Environment
   MASC 101 Oceanography (also listed as GEOL 101, BIOL 126, and ENV 127)

2) A course emphasizing the coastal ocean (choose one of the following):
   MASC 125 Coastal Sedimentary Environments
   MASC 136 Coastal Processes
   MASC 138 Barrier Island Ecology and Geology or equivalent

3) A course featuring practical experience in marine sciences (choose one of the following):
   • a field course
     MASC 104 Biological Oceanography
     MASC 123 Marine Carbonate Environments
     MASC 137 Ecology of Wetlands
     MASC 143 Biogeochemical Techniques or equivalent
   • a laboratory course
     MASC 104 Biological Oceanography
     MASC 111 Algae
     MASC 133 Micropaleontology or equivalent
   • a mathematical modeling or data analysis course
     MASC 152 Marine Systems Modeling
     MASC 153 Time Series and Spatial Data Analysis or equivalent
   • a supervised special topics course
     MASC 197 Special Topics in Coastal Studies
     MASC 198 Special Topics in Physical Oceanography
     MASC 199 Special Topics in Marine Science or equivalent

4) A fourth marine sciences course of the student’s choosing.

Marine Sciences courses available to undergraduates through the Department of Marine Sciences and allied departments include the following:

Course Descriptions

12 The Marine Environment (GEOL 12) (3). Introduction to natural science emphasizing physical, chemical, biological, and geological phenomena in oceanic and coastal environments. Human use of, and impact on, marine resources. (Science majors see MASC 101). Fall and spring. Frankenberg, Martens.

101 Oceanography (BIOL 126, ENV 127, GEOL 101) (3). Prerequisites, major in a natural science or at least two college-level courses in natural sciences. The origin of ocean basins, chemistry and dynamics of seawater, biological communities and processes, the sedimentary record, and the history of oceanography. Term paper. Intended for students with college science background; other students should see Geology 12. Three lecture hours a week. Fall, Neumann. Spring, Staff.

103 Geological Oceanography (GEOL 188) (4). Prerequisite, Geology 11 or 41, or permission. Ocean basin origin, continental margin development, coastal geology, carbonate platforms, and pelagic sediments are subjects covered; paleo-oceanographic reconstructions are emphasized. Three lecture and two laboratory hours a week. Fall, Neumann.

104 Biological Oceanography (BIOL 140, ENV 136) (4). Prerequisites, Biology 54 or 105 or permission. Physical, chemical, and biological factors characterizing estuarine and marine environments emphasizing factors controlling animal and plant populations, including experimental approaches and methods of analysis, sampling, and identification. Five lecture and four laboratory hours a week. Summer. Alternate years. Offered on demand at the Institute of Marine Sciences, Morehead City, N.C. Staff.

105 Chemical Oceanography (ENV 129) (4). Prerequisite, one semester of physical chemistry or Environmental Sciences 122 or Chemistry 180, or permission of instructor. Variation and abundance of sea water constituents, the chemical, physical, and biological processes contributing to their distribution as well as problems of dispersion of conservative and nonconservative substances. Three lecture and two recitation hours a week. Spring. Martens, Arnott, Alperin.

106 Physical Oceanography (GEOL 106) (4). Prerequisites, Math 31, 32, Physics 24, 25, or permission. Descriptive regional oceanography, equations of motion, the Ekman layer, wind-driven currents, thermohaline circulation, modern observations, waves, tides. Four lecture hours a week. Fall. Baer.

110 The Science of Global Environmental Change (3). Prerequisites, at least two college-level courses in natural sciences or permission of instructor. This course investigates how human activities have perturbed the global environment. Students will gain a scientifically sound understanding of topics such as acid rain, ozone depletion, and global climate change. The course will cover the causes of environmental change, the potential future impact of continuing anthropogenic activity, as well as the costs and benefits of various mitigation measures. BA-level Natural Science perspective. Fall. Alperin.

111 Algae (BIOL 111) (3). Prerequisites, Biology 11, 11L. An introduction to the development, biology, ecology, and evolutionary significance of the algae. Three lecture hours a week. Spring, Hammersand.

113 Marine Algae (BIOL 113) (4). Prerequisites, Biology 11, 11L. Structure, reproduction, systematics, and ecology of marine algae. The laboratory will include field studies and culture techniques. Two lecture and four laboratory hours a week. Spring. Hammersand.

119 Marine Biogeochimistry (ENV 119) (3). Integrated application of biological and chemical concepts to understand the processes controlling the cycling of carbon, nutrients, and bioactive trace elements in seawater and marine sediments. Intended for science majors who have completed at least one year of biology plus organic and/or physical chemistry; or MASC 101; or GEOL 164; or ENV 122. In all other cases, permission of the instructor is required. (Note: Advanced graduate students should consider MASC 140.) Fall (alternate years). Amato.

123 Marine Carbonate Environments (GEOL 123) (4). Prerequisite, permission of instructor. Chemical and biological origins of calcium carbonate, skeletal structure, and chemomineralogy, preservation, sedimentation, and early diagenesis are studied in a variety of deep and shallow environmental settings, in order to understand skeletal genesis, limestone origin and carbonate facies variability. Field trip to Florida, Bahamas, or Bermuda. Lab exercises; research report. Spring. Alternate years. Neumann, Crenshaw.

125 Coastal Sedimentary Environments (GEOL 125) (3). Prerequisite, Geology 56 or permission of instructor. Introduction to modern shallow-water clastic environments and their sediments, emphasizing barrier islands, deltas, wetlands, and tidal flats. Includes local field trips and discussion/application of data-collecting techniques. Spring. Alternate years. Wells.
133 Micropaleontology (3). Prerequisite, Invertebrate Paleontology 132, or Marine Ecology 146, or permission of instructor. An in-depth study of the biostratigraphy, paleoecology, and taxonomy of various microfossil groups (e.g., Foraminifera, ostracodes, conodonts, coccoliths, Radiolarians, diatoms, acritarchs, dinoflagellates, etc.) dependent upon individual student objectives. Three lecture and three laboratory hours a week. On demand. Bralower.

136 Coastal Processes (4). An interdisciplinary description and analysis of environmental processes that form and maintain coastal habitats. Coastal aspects of geology, fluid dynamics, chemistry, and biology are considered. Two lectures per week and two coastal field trips. Spring. Frankenberg.

137 Ecology of Wetlands (ENVR 137) (4). Prerequisites, one year of biology, one year of chemistry, one semester of ecology, and permission of instructor. An introduction to the function of freshwater and estuarine marsh and swamp ecosystems, with emphasis on systems of the southeastern U.S. Fall. Staff.

138 Barrier Island Ecology and Geology (6). Prerequisite, courses in general ecology or geology, or permission of instructor. Integration of barrier island plant and animal ecology within the context of physical processes and geomorphological change. Emphasis on management and impact of human interference with natural processes. Summer. Peterson, Wells.

140 Biogeochemical Cycling (GEOL 140) (3). Prerequisites, MASC (GEOL) 145 or 146, or GEOL 164, or ENVR 153, or MASC 105, or permission of instructor. Biogeochemical cycling explores interfaces between marine, aquatic, atmospheric, and geological sciences emphasizing processes controlling chemical distributions in sediments, fresh and salt water, the atmosphere, and fluxes between these reservoirs. Spring. Martens, Alpert, Arnosti.

141 Special Problems in Marine Biology (BIOL 141) (3-6). Prerequisites, BIOL 140 and permission of instructor. Survey of current problems and intellectual approaches in any of the following areas: Marine Ecology (Hay, Peterson); Marine Chemical Ecology (Hay, Lindquist); Marine Microbes (Kohnlmen, Paerl). Hours and credits by prior agreement (with five or more laboratory and conference hours a week per unit credit). Fall, spring, first or second summer sessions (offered on demand at Morehead City, N.C.). Staff of Institute of Marine Sciences.

143 Biogeochemical Techniques (2). Pre- or corequisite, MASC 105. Introduction to fundamental techniques used in biogeochemical research including sampling, instrumental and wet chemical analytical measurements, use of stable isotopes and rate measurements using radioactive tracers. Spring. Albert.

144 Organic Geochemistry (GEOL 144) (3). Prerequisites, MASC 105 or CHEM 61, or permission of instructor. Sources, transformations, and fate of natural organic matter in marine environments. Emphasis on interplay of chemical, biological, and physical processes that affect organic matter composition, distribution, and turnover. Fall. (Alternate years.) Arnosti.

145 Geochemistry (GEOL 145) (3). Prerequisites, Geology 11 or 41, Chemistry 21, or permission of instructor. Introduction to the application of chemical principles to geological problems, with emphasis on isotopic methods. Spring. Bennenger.

146 Marine Ecology (BIOL 146) (3). Prerequisite, Biology 54 or 105. A survey of ecological and oceanographic processes structuring marine communities in a broad range of habitats with an emphasis on experimental approaches to addressing both basic and applied problems in marine systems. Three lecture hours a week. Spring. Alternate years. Peterson, Hay.

148 Marine Biology (BIOL 148) (3). Prerequisites, MASC 12 or BIOL 11. A survey of plants and animals that live in the sea: characteristics of marine habitats, organisms, and the ecosystems will be emphasized. Marine environment, the organisms involved, and the ecological systems that sustain them. Fall. Frankenberg.

151 Fluid Dynamics (GEOL 181, PHYS 151) (3). Prerequisite, Physics 103 or permission. The physical properties of fluids, kinematics, governing equations, viscous incompressible flow, vorticity dynamics, boundary layers, irrotational incompressible flow. Three lecture hours a week. Fall. Shay.

152 Modeling of Marine and Earth Systems (GEOL 141) (1-3). Prerequisite, Math 32 or permission of instructor. Mathematical modeling of dynamic systems; linear and nonlinear. The fundamental budget equation. Case studies in modeling transport, biogeochemical processes, population dynamics. Analytical and numerical techniques; chaos theory, fractal geometry. Three lecture hours a week. Spring. Werner, Rial.


155 Turbulent Boundary Layers (2). Prerequisite, MASC 106 or MASC 151 or permission of instructor. Turbulence and transport in near-bottom boundary regions. Turbulence and mixing theory in boundary layers. Field deployment and recovery of turbulence measuring instruments. Data analysis from turbulence measurements. Summer. Luetich.

156 Descriptive Physical Oceanography (GEOL 143) (3). Prerequisite, MASC 106 or permission. Observed structure of the large-scale and mesoscale ocean circulation and its variability, based on modern observations. In-situ and remote sensing techniques; hydrographic structure, circulation patterns, ocean-atmosphere interactions. Three lecture hours a week. Spring. Alternate years. Bane.

197 Special Topics in Coastal Studies (Var.). Prerequisites, science background or permission. Analysis of coastal zone environments and the processes that control them. Topic selection reflecting faculty specialization, emphasis on field study. Lecture and laboratory hours by arrangement. Fall, spring, summer. Staff.

198 Special Topics in Physical Oceanography (Var.). Topics in physical oceanography not covered in regularly scheduled courses. Fall, spring, or summer. Bane, Luetich, Shay, Werner.

199 Special Topics in Marine Sciences (2-6). Prerequisite, science background and permission of instructor. Directed readings, laboratory, and/or field study of marine science topics not covered in regularly scheduled courses. Lecture and laboratory hours by arrangement. Fall, spring, or summer. Staff.

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Curriculum in Mathematical Sciences

JON W. TOLLE, Chair

Advisers

Mathematical methodology has long been the characteristic feature of sciences such as physics and chemistry and of a variety of technological and engineering disciplines. In recent years, new mathematical tools and ideas have been used in areas not previously thought to be amenable to mathematical analysis. The development of large and fast computers has been a major factor in this expansion of mathematics. Biology, medicine, psychology, anthropology, sociology, political science, business and management, and linguistics have profited from the introduction of mathem-
ical techniques. As a result, an undergraduate degree in the mathematical sciences provides a good basis for a career in many different areas.

The Curriculum in Mathematical Sciences offers a Bachelor of Science degree program that permits a student to major in one of the five options: Actuarial Science, Applied Mathematics, Computer Science, Operations Research, and Statistics. (The Computer Science option is directed toward the mathematical aspects of computer science—in contrast with the Computer Science option of the Curriculum in Applied Sciences, which is oriented toward the design and operation of hardware devices for digital systems.)

Each option represents an area of practical and theoretical interest in the Mathematical Sciences; each will prepare the major for a variety of professional jobs or for graduate study in related subjects. The advisers in the curriculum are faculty members from the departments of Computer Science, Mathematics, Operations Research, Physics, and Statistics. Students are assigned to appropriate advisers according to their interests.

Students interested in one of the options should see the Chair of the Curriculum in Mathematical Sciences in 358 Phillips Hall. A program leading to an honors degree is available in each option.

A five-year program leading to an M.S. degree in Operations Research is also available.

**General College Requirements**

In the first two years all students in these programs must meet General College requirements. As part of or in addition to the requirements, the following courses should be taken:

- **A. Mathematics 31, 32, 33, 81, and Computer Science 14 or 15 (all options), and Mathematics 83 (all except the Computer Science option);**
- **B. A foreign language through language 4 (all options);**
- **C. Physics 26, 27 (Applied Mathematics and Computer Science options); Physics 28 (Applied Mathematics option); Physics 24, 25 or 26, 27 are recommended but not required for the other options.**
- **D. Economics 10 (Actuarial Science and Operations Research options); Business Administration 71 (Actuarial Science option).**
- **E. Computer Science 114 (Computer Science option).**

**Junior-Senior Requirements**

- **A. Actuarial Science Option**
  1. Mathematics 147, 161, 162, 166;
  2. One of Mathematics 121, 124;
  3. Operations Research 181;
  (Operations Research 183 recommended)
- **B. Applied Mathematics Option**
  1. Mathematics 121, 124, 147, 122;
  2. One of Mathematics, 123, 128;
  3. Mathematics 166;
  4. Physics 191, 192;

**C. Computer Science Option**

1. Mathematics 116 (or Mathematics 83 and 147), 148;
2. Statistics 126;
3. Computer Science 120, 121, 122;
4. Four courses from the following, with at least three chosen from group a:
   a. Computer Science 130, 140, 142, 144, 145, 181, Mathematics 166, or other computer science courses approved by the major adviser;

**D. Operations Research Option**

1. Mathematics 121, 147;
2. One of Mathematics 122, 124, 148, 149, Statistics 127, Computer Science 121;
3. Statistics 101, 102, 126 (Statistics 127 recommended);
4. Operations Research 140, 181, 183;
5. Computer Science 114.

**E. Statistics Option**

1. Mathematics 121, 147, and 122 or 128;
2. Statistics 101, 102, 126, 127;

**F.** Each student is required to take four elective courses outside of the Mathematical Science Department (Computer Science, Mathematics, Operations Research, and Statistics). Of these, at least one must be chosen from the divisions of Humanities and Fine Arts, one from the Division of Social Sciences, and one from the Division of Basic and Applied Natural Sciences. These courses cannot be taken pass/fail.

**G.** Students in all options must take sufficient electives to achieve at least 122 hours of academic credit, not including physical education activity courses. The student must attain a grade of C or better in eighteen hours of the junior-senior course requirements.

**Minor in Mathematical Sciences**

The minor in Mathematical Sciences requires:

- **A.** Mathematics 33 and either Mathematics 81 or Mathematics 83.
- **B.** A set of three upper-level courses chosen from the Mathematical Sciences departments. A Mathematical Sciences adviser must approve the selection of courses.

Students majoring in Mathematics may not minor in Mathematical Sciences.
Department of Mathematics

PATRICK B. EBERLEIN, Chair

Professors

Associate Professors
Roberto Camassa, Philippe DeFrancesco, Michael Minion.

Professors Emeriti
Robert L. Davis, Robert G. Heyneman, W. Robert Mann, Johann Sonner, Fred B. Wright.

Mathematics has always been a fundamental component of human thought and culture, and the growth of technology in recent times has further increased its importance. Today mathematics is an essential partner in fields where once it played no role. At the same time, mathematics itself continues to grow and develop through research, much of which is stimulated by the new interactions with other fields. Today every educated person needs at least a familiarity with the language of mathematics, and even some more substantial knowledge of the technical aspects than in the past. People working in many fields find that areas of mathematics only recently thought to be sophisticated and advanced have become part of the everyday tools in their sphere of activity.

UNC-Chapel Hill offers a variety of degrees in mathematics and the mathematical sciences, providing students a wide choice of careers in this field. Among the jobs in industry, government, and the academic world that involve mathematics as a central aspect are: actuary, analyst, modeller, optimizer, statistician, computer analyst. Students who have an interest in working in one of these highly technical professions or who intend to pursue an advanced degree in one of the mathematical sciences should seriously consider the B.S. in Mathematics or one of the options in the B.S. in Mathematical Sciences.

For those interested in teaching careers, the Department of Mathematics cooperates with the School of Education in the preparation of teachers for the elementary, middle school, and high school levels. (See the note below.) Finally, the B.A. in Mathematics is a true liberal arts degree that opens the door to the continuing intellectual growth, enrichment, and self-fulfillment that are the goals of a liberal education. Students intending to enter a professional school (law, medicine, business), will find that admissions officers of such schools find an undergraduate degree in mathematics an attractive part of an applicant's history.

Degree Requirements

Students majoring in mathematics may enter either the B.A. or the B.S. program. The B.A. program is more flexible than the B.S. program; it allows one to specialize in mathematics and at the same time either to follow a broad liberal arts program or to specialize in a second area (possibly even taking a second major). The B.S. program is more technically oriented; it provides solid preparation for work or study in mathematics or a related field.

Both the B.A. and the B.S. degrees require, beyond freshman-sophomore calculus, courses in algebra and analysis at a higher level. Students who plan a career in a technical field should also develop familiarity with computers and statistics, for example by taking COMP 14 or 15 and some of STAT 101, 102, 126, and 127.

The specific requirements (beyond those of the General College) for the B.A. and B.S. degrees are as follows.

B.A. Degree with a Major in Mathematics

A. 1. Mathematics 31, 32, 33, 81, 83
   2. Mathematics 147 or 137 (preferably before the senior year)
   3. Mathematics 121
   4. At least three more mathematics courses numbered 120 or above.

B. The four Perspective requirements of the College of Arts and Sciences.

C. Eighteen hours of C or better (not C-) in mathematics courses numbered 33 or higher.

B.S. Degree with a Major in Mathematics

Freshman and Sophomore Years

A. See “General College.”

Junior and Senior Years

B. 1. Mathematics 147 or 137 (preferably before the senior year)
   2. Mathematics 121 and one of 122, 123, 128, 166
   3. Mathematics 134 or 138
   4. At least three more mathematics courses numbered 120 or above.

C. Four or more courses in Division of Natural Sciences but not in Mathematics (in addition to the General College requirements).

D. Three nonscience Perspective courses (one each in three of the Aesthetic, Philosophical, Social Sciences, and Western Historical or Non-Western Comparative Perspectives).

E. Eighteen hours of C or better (not C-) in mathematics courses numbered 120 or higher.

Special Programs in Mathematics

Special honors (A) sections are given in mathematics courses as often as possible when student interest is sufficient. Promising students are encouraged to work toward a bachelor's degree with honors in mathematics.
The course program will consist of six or more courses approved by the departmental honors adviser. At some time during the semester in which he or she expects to graduate, the candidate for a degree with honors will either present an honors essay written under the direction of a faculty member or take an oral examination on courses approved by the honors adviser. Students writing an honors essay will be expected to make an oral presentation of the essay.

Interested students should consult the departmental honors adviser as early as possible and in no case later than the beginning of their senior year. Special activities for qualified students include an undergraduate Mathematics Club, a scholastic honorary society Pi Mu Epsilon, and a Putnam Examination Team. Students interested in these activities should consult the departmental honors adviser.

General College Mathematics Requirement

Students may use the following mathematics courses to fulfill the General College Mathematics requirement: Math 16, 17, 18, 22, 30, 31, 32. Other courses that fulfill this requirement and exceptions involving courses with similar subject matter are described in the General College section of this bulletin. No student can receive credit for Math 16 or Math 22 or Math 30 after receiving credit for Math 31. No student can receive credit for Math 16 after receiving credit for Math 22. Math 12 cannot be used to satisfy the General College requirement.

Advanced Placement

A student who makes a grade of 3 or higher on the AB Advanced Placement Examination will receive credit for Mathematics 31. A student who makes a grade of 3 or higher on the BC Advanced Placement Examination will receive credit for both Mathematics 31 and Mathematics 32. No credit for Mathematics 30 will be given on the basis of any advanced placement examination. A credit examination for calculus is given on a regular basis by the department. Information concerning this examination may be obtained by contacting the director of undergraduate studies. Any student who is placed in one of the courses Math 32 or 33 and receives a grade of C- or better in the course will be given credit (without grade) for all courses in the sequence 31 and 32 that precede the course taken.

Students in Mathematics Intending to Teach

Students intending to teach mathematics in the public schools and students enrolled in the School of Education who intend to major in mathematics should consult the School of Education section of the catalog or the director of mathematical education in the Department of Mathematics.

Minor in Mathematics

The minor in Mathematics requires:

A. Mathematics 33, 81, and 83.
B. Three Mathematics courses numbered 120 or higher, all with a grade of C or better.
C. Students majoring in Mathematical Sciences may not minor in Mathematics.

Course Descriptions

Review of Basic Algebra (3). Prerequisite, placement by Achievement Test. Placement in this course is by the Mathematics Department based on testing which indicates that the student will have difficulty with Math 10. The course provides a more gradual introduction to the material of Math 10. Hours credit for this course cannot be used for any Mathematics requirement and do not count for hours required for graduation. Fall, summer.

10 Algebra (3). Prerequisite, placement by Achievement Test. This course provides a one-semester review of the basics of algebra. Basic algebraic expressions, functions, exponents, and logarithms are included with an emphasis on problem solving. The course should not be taken by those with a suitable score on the Achievement Test. Fall and spring.

12 Mathematics in the Early Childhood and Intermediate Grades (EDUC 12) (3). Prerequisite, one college-level mathematics course. This course provides a study of the mathematical content of elementary programs together with materials, techniques, and aids for teaching that content. Fall and spring.

16 Intuitive Calculus (3). Prerequisite, Math 10. This course provides an introduction in as non-technical setting as possible of the basic concepts of calculus. The course is intended for the non-science major. A student may not receive credit for this course after receiving credit for Math 22 or Math 31. Fall and spring.

17 Finite Mathematics (3). Prerequisite, Math 10. This course provides an introduction in as non-technical setting as possible of the basic concepts of finite mathematics. Basic counting problems and finite probability problems are discussed. The course is intended for the non-science major. Fall and spring.

18 Selected Topics in Mathematics (3). Prerequisite, Math 10. This course provides an introduction in as non-technical setting as possible to selected topics in mathematics. Topics covered will vary each semester depending on the individual instructor's selection. The course is intended for the non-science major. Fall and spring.

22 Calculus for Business and Social Sciences (3). Prerequisite, Math 10. An introductory survey of differential and integral calculus with emphasis on techniques and applications of interest to business and the social sciences. This is a terminal course and not an adequate preparation for Math 32. A student cannot receive credit for this course after receiving credit for Math 31. Fall and spring.

30 Trigonometry and Analytic Geometry (3). Prerequisite, Math 10. Covers the basic concepts of trigonometry and analytic geometry. Covered are the trigonometric functions and their graphs, relationships, and applications. Basic analytic geometry topics include the conics, translations, and rotations. Basic ideas of vector geometry are introduced. A student may not receive credit for this course after receiving credit for Math 31. Fall and spring.

31 Calculus of Functions of One Variable I (3). Prerequisite, a grade of C- or better in Math 30 or placement by the department. Limits, derivatives, and integrals of functions of one variable. Fall and spring.

32 Calculus of Functions of One Variable II (3). Prerequisite, a grade of C- or better in Math 31 or placement by the department. Calculus of the elementary transcendental functions, techniques of integration, indeterminate forms, Taylor's formula, infinite series. Fall and spring.

31A, 32A Calculus of Functions of One Variable I and II (3 each). Prerequisite, special placement by examination or consent of instructor. These are the honors sections of Math 31, 32. A more comprehensive, deeper treatment of differential and integral calculus and infinite series. 31A, fall; 32A, spring and fall.

33 Calculus of Functions of Several Variables (3). Prerequisite, Math 32. Vector algebra, solid analytic geometry, partial derivatives, multiple integrals. Fall and spring.
3A Calculus of Functions of Several Variables (3). Prerequisite, Math 32A or consent of instructor. Continues the A-sequence with linear algebra for applications, multivariable differential calculus, maxima and minima, curves in space. Fall.

81 Discrete Mathematics (3). Prerequisite, Math 32. Topics from the foundations of mathematics: logic, set theory, relations and functions, induction, permutations and combinations, recurrence. Fall and spring.

83 Linear Algebra and Differential Equations (3). Prerequisite, Math 33. Systems of linear equations; vectors and matrices; basis and independence. Introductory ordinary differential equations; systems of linear differential equations. Fall and spring.

83A Linear Algebra and Differential Equations (3). The honors section of Math 83. Fall and spring.

90 Undergraduate Reading and Research in Mathematics (1-3). Permission of director of undergraduate studies required. This course is intended mainly for students working on honors projects. No one may receive more than three semester hours credit for this course. Fall and spring.

98 Undergraduate Seminar in Mathematics (1-3). Prerequisite, permission of instructor. A seminar on a chosen topic in mathematics in which the students participate more actively than in usual courses. Fall and spring.

101 Mathematical Concepts in Art (3). Prerequisite, Art 37. Mathematical theories of proportion, perspective (projective invariants and the mathematics of visual perception), symmetry and aesthetics will be expounded and illustrated by examples from painting, architecture, and sculpture.

106 Mathematical Methods in Biostatistics (Bios 106) (3). Prerequisite, Math 32 or equivalent. Special mathematical techniques in the theory and methods of biostatistics as related to the life sciences and public health. Includes brief review of calculus, selected topics from intermediate calculus, and introductory matrix theory for applications in biostatistics.

111 Developing Mathematical Concepts (3). Prerequisite, consent of instructor. An investigation of various ways elementary concepts in mathematics can be developed. Applications of the mathematics developed will be considered. This course ordinarily is offered as an inservice course for teachers.

115 History of Mathematics (3). Prerequisite, Math 81. A general survey of the history of mathematics with emphasis on elementary mathematics. Some special problems will be treated in depth. Spring.

116 Linear Algebra (3). Prerequisite, Math 32. An introduction to the theory of vector spaces, linear transformations, systems of linear equations, matrices, determinants, eigenvectors, diagonalization. A student may not receive credit for this course after receiving credit for Math 147 or 137.

118 Basic Concepts of Analysis (3). Prerequisites, Math 32 and consent of instructor. Limits, continuity, differentiability, uniform continuity. Riemann integration. Infinite sequences and series; uniform convergence; power series. A student cannot receive credit for this course after receiving credit for Math 193 or Math 121.

120 Probability (3). Prerequisites, Math 33 and Math 81. Foundations of probability; random variables and distribution functions; the binomial, Poisson, and normal distributions; expectations, moments, moment-generating functions; compound events and joint distributions; limit theorems; applications. A student cannot receive credit for this course after receiving credit for Math 146. Spring.

121 Advanced Calculus I (3). Prerequisites, Math 33 and Math 81. The real numbers; continuity and differentiability of functions of one variable; infinite series; integration. Fall and spring.

122 Advanced Calculus II (3). Prerequisite, Math 121. Functions of several variables; the derivative as a linear transformation; inverse and implicit function theorems; multiple integration. Spring.

123 Functions of a Complex Variable with Applications (3). Prerequisite, Math 83. The algebra of complex numbers, elementary functions and their mapping properties, complex limits, power series, analytic functions, contour integrals, Cauchy's theorem and formulae, Laurent series and residue calculus, elementary conformal mapping and boundary value problems, Poisson integral formula for the disk and the half plane. Fall.


125 Computer Assisted Mathematical Problem Solving (3). Prerequisite, Math 83. Personal computer as tool in solving a variety of mathematical problems, e.g., finding roots of equations and approximate solutions to differential equations. Introduction to appropriate programming language. Emphasis on graphics.

128 Mathematical Methods for the Physical Sciences I (3). Prerequisites, Math 83 and Physics 24-25, or equivalent. Ordinary differential equations; Laplace transforms. Matrices and determinants. Students taking Math 128 or Math 129 will be expected to do some numerical calculations on either a programmable pocket calculator or a computer. Fall.


130 Topology (3). Prerequisite, Math 33; corequisite, Math 83 or permission of instructor. Introduction to topics in topology, particularly surface topology, including classification of compact surfaces, Euler characteristic, orientability, vector fields on surfaces, tessellations, and fundamental group.

131 Euclidean and Non-Euclidean Geometries (3). Prerequisite, Math 32 or permission of instructor. Critical study of basic notions and models of Euclidean and non-Euclidean geometries, order, congruence, and distance. Spring.

133 Elementary Theory of Numbers (3). Prerequisite, Math 81. Divisibility, Euclidean algorithm, congruences, residue classes, Euler's function, primitive roots, Chinese remainder theorem, quadratic residues, number theoretic functions, Farey and continued fractions, Gaussian integers. Fall.

134 Elements of Modern Algebra (3). Prerequisite, Math 81. Binary operations, groups, subgroups, cosets, quotient groups, rings, polynomials. Spring.

137 Linear Algebra (3). Prerequisites, Math 81 and Math 83. Vector spaces, linear transformations, duality, diagonalization, primary and cyclic decomposition, Jordan canonical form, inner product spaces, orthogonal reduction of symmetric matrices, spectral theorem, bilinear forms, multi-linear functions. A much more abstract course than Math 116 or 147. Fall.

138 Algebraic Structures (3). Prerequisite, Math 137 or 147. Permutation groups, matrix groups, groups of linear transformations, symmetry groups; finite abelian groups; residue class rings, algebra of matrices, linear maps, and polynomials; real and complex numbers, rational functions, quadratic fields, finite fields. Spring.

146 Introduction to Probability (STAT 126) (3). See course listings for Department of Statistics.

147 Matrix Theory (3). Prerequisite, Math 83 or equivalent. Algebra of matrices with applications; determinants; solution of linear systems by Gaussian elimination; Gram-Schmidt procedure; eigenvalues. Math 116 covers elementary aspects of linear systems and matrices and may not be taken for credit after credit has been granted for Math 147. Fall and spring.

148 Combinatorial Mathematics (STAT 156) (3). Prerequisite, Math 81 or equivalent, or permission of instructor. Topics chosen from: generating functions, Pólya's theory of counting, partial orderings and incidence algebras, principle of inclusion-exclusion, Möbius inversion, combinatorial problems in physics and other branches of science. Fall.
149 Introduction to Graph Theory (STAT 158) (3). Prerequisite, Math 116, 137, or 147. Basic concepts of directed and undirected graphs, partitions and distances in graphs. Planar and nonplanar graphs. Matrix representation of graphs, network flows, applications of graph theory.

155 Introduction to Dynamics (3). Prerequisites, Math 83 and consent of instructor. Topics will vary and may include iteration of maps, orbits, periodic points, attractors, symbolic dynamics, bifurcations, fractal sets, chaotic systems, systems arising from differential equations, iterated function systems, and applications.

157 Topics in Matrix Theory (3). Prerequisites, Math 137 or equivalent, or Math 147 or equivalent, and some knowledge of computer programming. Quadratic and Hermitian forms, Sylvester's theorem; applications to systems of differential equations; approximation of eigenvalues and eigenvectors; nonnegative matrices; Perron-Frobenius theorem; integer matrices with applications in combinatorics. Spring.

161 Actuarial Mathematics I (3). Prerequisite, Math 33. An introduction to the basic mathematical models of actuarial science. Deterministic and simple stochastic models of compound interest and life contingency theory are studied. Fall.

162 Actuarial Mathematics II (STAT 107) (3). Prerequisites, Math 161 and Stat 126. The theory introduced in Actuarial Mathematics I is expanded to encompass more complex models of financial transactions and risks. Spring.

166 Introduction to Numerical Analysis (3). Prerequisites, Math 83 and some knowledge of computer programming. Iterative methods, interpolation, polynomial and spline approximations, numerical differentiation and integration, numerical solution of ordinary and partial differential equations. The subject matter of this course will include the material covered in the Society of Actuaries examination on numerical methods. Fall.

175 Topics in Analysis (3). Prerequisites, Math 122 or consent of instructor. Topics may include linear spaces, convexity, mathematical programming, duality, algorithms, and other subjects related to the mathematical theory of optimization. Spring.

176 Topics in Algebra (3). Prerequisite, consent of instructor. Topics may include number theory, algebraic number theory, field theory, or algebraic geometry. Spring.

177 Topics in Geometry (3). Prerequisite, consent of instructor. Topics may include non-Euclidean geometries, linear geometry, finite geometries, convexity, polytopes, topology, and algebraic geometry. Spring.

180 Geometry of Curves and Surfaces (3). Prerequisite, advanced calculus. Topics include: curves, Frenet formulas, isoperimetric inequality, theorems of Crofton, Fenchel, Fary-Milnor; surfaces) fundamental forms, Gaussian and mean curvature, special surfaces, geodesics, Gauss-Bonnet theorem. Fall.


186 Linear Algebra (3). 186 Modules, Linear Algebra, and Groups (3). Modules over rings, canonical forms for linear operators and bilinear forms, multilinear algebra, groups and group actions.

187 Groups, Representations, and Fields (3). Internal structure of groups, Sylow theorems, generators and relations, group representations, fields, Galois theory, category theory. Spring. Mewborn.

189 Enumerative Combinatorics (3). Prerequisite, Math 138. Basic counting, partitions, recursions and generating functions, signed enumeration, counting with respect to symmetry, plane partitions and tableaux. Proctor.

190 Combinatorial Structures (3). Prerequisite, Math 138. Graph theory, matchings, Ramsey theory, extremal set theory, network flows, lattices, Möbius inversion, q-analogs, combinatorial and projective geometries, codes and designs. Proctor.

191 Scientific Computation I (3). Prerequisite, some programming experience, basic numerical analysis. Error in computation, solutions of nonlinear equations, interpolation, approximation of functions, Fourier methods, numerical integration and differentiation, introduction to numerical solution of ODEs, Gaussian elimination. Fall.

192 Scientific Computation II (3). Prerequisite, Math 191. Theory and practical issues arising in linear algebra problems derived from physical applications, e.g., discretization of ODEs and PDEs, linear systems, linear least squares, eigenvalue problems, singular value decomposition. Spring.

193 Introductory Analysis (3). Prerequisite, advanced calculus. Elementary metric space topology; continuous functions; differentiation of vector-valued functions; implicit, inverse function theorem. Topics from: Weierstrass theorem; existence and uniqueness theorems for differential equations; series of functions. Fall.

195 Intermediate Probability (STAT 132) (3). See course listings for Department of Statistics.

196 Complex Analysis (3). Prerequisite, Math 193. A rigorous treatment of complex integration, including the Cauchy theory. Elementary special functions, power series, local behavior of analytic functions. Spring.

197 Qualitative Theory of Differential Equations (3). Prerequisite, linear algebra and Math 193, or consent of instructor. Existence and uniqueness theorems, linear and nonlinear systems, differential equations in the plane and on surfaces, Poincaré-Bendixson Theory, Liapounov stability and structural stability, critical point analysis.

198 Methods of Applied Mathematics I (3). Prerequisite, undergraduate differential equations. Contour integration; asymptotic expansions; steepest descent/stationary phase methods; special functions arising in physical applications; elliptic and theta functions; elementary bifurcation theory. Fall.

199 Methods of Applied Mathematics II (3). Prerequisite, Math 198 or permission. Perturbation methods for odes, pdes; WKBJ method, averaging, modulation theory for linear and nonlinear wave equations; long-time asymptotics of Fourier integral representations of pdes; Green's functions; dynamical systems tools. Spring.

Department of Military Science

JAMES RHoads, Lieutenant Colonel, Professor of Military Science and Chair

Robin Ellerbe, Captain, Recruiting Officer, Assistant Professor of Military Science

Mark Elliott, Master Sergeant, Operations Non-Commissioned Officer

Bobby Mullens, Sergeant First Class, Administrative Non-Commissioned Officer

The UNC-Chapel Hill Department of Military Science offers Army ROTC training to qualified students, allowing them to enroll in and complete the course of instruction required for commissioning as a second lieutenant in the United States Army. Numerous benefits can be gained from Army ROTC experience. They include leadership training, academic challenges, competitive scholarships for qualified students, and a wide variety of extracurricular activities.

Qualified students who successfully complete all course
requirements compete for an Army commission and compete for full-time Army active duty positions, or part-time National Guard and Reserve positions. Upon graduation and commissioning, students will serve on active duty or in the U.S. Army Reserves or the Army National Guard.

Interested students can call the department at (919) 962-5526/5547 or (800) 305-6687.

Academics

Four-Year Program

Students enrolled in the four-year program take one class during each semester of the four years of college study. The first two years of the program concentrate on an introduction to the Army, leadership development, ethics, and applied military skills such as topography and small unit tactics. After completion of the first two years, students progress to the advanced portion of instruction that includes hands-on application of leadership skills, land navigation, military history, and principles of military law. After completion of the third year, students attend six weeks of summer training at Fort Bragg, North Carolina, where leadership and other military skills are applied and evaluated. At graduation, students who have successfully completed all course requirements are commissioned as Second Lieutenants in the U.S. Army.

Two-Year Program

The two-year program provides an opportunity for students who were not enrolled in the initial two years of Army ROTC to meet the requirements for commissioning in the Army ROTC to meet the requirements for commissioning in the Army. Students who have previously served on active duty, the national guard, or reserves of any military branch are eligible to enroll in the Army ROTC advanced courses.

The two-year program also includes a six-week internship camp at Fort Knox, Kentucky, for students with no previous military service. This camp is called “Camp Challenge” and is designed to introduce prospective cadets to the Army and ROTC. Following successful completion of “Camp Challenge,” graduates are eligible to enroll in the advanced portion of ROTC and pursue an Army commission.

Extracurricular Activities

Army ROTC offers a wide variety of extracurricular events. Students who seek excitement and challenge can volunteer to attend Airborne, Air Assault, and Northern Warfare Training. During the academic year, students may participate in the Ranger Club, which stresses military tactics and physical fitness. Ranger Club participants compete each fall in regional and national Ranger Club competitions. Selected cadets may participate in a two-week summer apprentice training program during which they are assigned to an actual Army unit either in the U.S. or overseas.

Program Eligibility

The first two years of Army ROTC are open to students who are U.S. citizens with a GPA of 2.0 or higher. Entry into the last two years of the program is restricted to students who have displayed a genuine interest in pursuing a commission in the U.S. Army, students who have a minimum GPA of 2.0, have two years of school left before graduation, and meet medical and age criteria.

Scholarships

Four-year scholarships are available to high school seniors. Three- and two-year scholarships are available on a competitive basis for qualified students during their freshman and sophomore years. Students who attend “Camp Challenge” compete for two-year scholarships. Scholarships pay full tuition, $450 annually towards books, lab fees, and provide a $150 monthly tax free stipend. Nonscholarship students also receive the $150 monthly stipend commencing in the fall of their junior year.

Service Obligations

All ROTC students who complete the Army ROTC program and their university degree requirements incur a U.S. Army Reserve obligation. All students, scholarship and nonscholarship, compete for active duty assignments. Four- and three-year scholarship winners incur their Army service obligation at the beginning of their sophomore year, whereas two-year scholarship winners and nonscholarship students incur their obligation at the start of their junior year.

Course Descriptions

Military Science 1L. Fall Semester Laboratory (0). Drill and ceremony, marksmanship training, land navigation exercises, first aid, small unit tactics, and confidence course training. Mandatory for all ROTC cadets who are enrolled in Military Science 11, 31, 71, and 91. Must be repeated with each course. Rhoads.

Military Science 2L. Spring Semester Laboratory (0). Drill and ceremony, communications, and tactical exercises. Mandatory for all ROTC cadets who are enrolled in Military Science 12, 32, 72, and 92. Rhoads.

Military Science 11. Introduction to ROTC and the Army (1). The military organization with emphasis on tradition, doctrine, and contribution to national objectives. Laboratory required for cadets. Ellerbe.

Military Science 12. The Military Profession (1). Introduction to the concept of the military as a profession. Questions of ethics and values in the military; the issue of war and morality. Laboratory required for cadets. Ellerbe.


Military Science 32. Military Tactics and Leadership (2.0). Introduction to planning, organizing, and conducting small unit offensive and defensive operations. Consideration of the principles of war. Laboratory required for cadets. Ellerbe.

Military Science 71. Advanced Military Operations (3). Fundamentals of the conduct of military operations including advanced military topography; unit movements; route planning, nuclear, biological, and chemical defense; and military communications. Laboratory required for cadets. Rhoads.

Military Science 72. Advanced Military Operations (3). Study of threat forces to include doctrine, organization, equipment, and training. Conduct of platoon offensive, defensive, and patrolling operations for Army infantry units. Laboratory required for cadets. Prerequisite, Military Science 32. Rhoads.


Independent Study. Any serious student with an unsolvable scheduling conflict may sign up for any Army course through independent study. Permission and instructor interview is required prior to acceptance for independent study.

In addition to the above courses, students are required to complete History 68 or 69; or PWAD 76 or 77 and Philosophy 42 in order to qualify for commissioning from the Army ROTC program at UNC-Chapel Hill.

Department of Music

JOHN L. NÁDAS, Chair

Mark Evan Bonds, Associate Chair for Academic Studies
Brooks de Wetter-Smith, Associate Chair for Applied Studies
John Covach, Director of Undergraduate Studies

Professors
Mark Evan Bonds, Jon W. Finson, James Ketch,
James W. McKinnon, John L. Nádas, Severine Neff,
Donald L. Oehler, Brooks de Wetter-Smith,
Thomas A. Warburton, Michael W. Zenge.

Associate Professors
Allen Anderson, John Covach, Lynn D. Glassock,
Tonu Kalam, Susan A. Klebanow, Richard Luby,
Terry E. Rhodes, Michael Votta Jr., Francis M. Whang,
Stafford L. Wing, Brent S. Wissick.

Assistant Professors
Sean Gallagher, Brad Maiani, David L. Schulenberg,
Scott Warner.

Visiting Assistant Professor (1997-98)
Carol Muller.

Clinical Assistant Professors
Daniel Huff, Christine Rogers.

Athletic Bands
Jeffrey Fuchs, Brian Doyle.

Adjunct Faculty
Zinaida Astrakhon, Heather Causey, Michele Clark,
Kathy Dittmann, Tom Fahy, Martha Gardner, Mary Gayle Greene,
Pamela M. Halverson, Allen Harris, Debra Kotulski,
Michael Kris, Emily Laurance, David G. Lewis,
Thomas Limbert, Robert Link, N. Kay Lowe, Tasi Matthews,
Susan McAdoo, David McChesney, Sharon Miller,
Hugh Partridge, John E. Pederson, Barbara Rowan,
Julie Sargeant, Michael Schultz, Billy Stewart,
Sharon Szymanski, Marilee Vana, Laurel Zeiss.

Undergraduate Degrees in Music

The Department of Music offers two curricula for undergraduates who major in music. The Bachelor of Arts provides a focus on music in the context of a broad education in the liberal arts, while the Bachelor of Music degree puts emphasis on specialized training in music performance or composition. The requirements for these programs are described below.

Music Core Curriculum (31 hrs.). All students pursuing an undergraduate degree in music must complete the department's core curriculum, consisting of four courses in music history, four courses of music theory, and four semesters of ensemble. The distribution of courses in each area is shown below.

Music history (12 hrs.): 51, 52, 53, and 55.
Music theory (15 hrs.): 31/31L (4), 32/32L (4), 37/37L (4),
and one selected from 33, 35, 38, 64, or 65.
Ensemble (4 hrs.): four semesters of an appropriate departmental ensemble.

Additional Requirements for the B.A. in Music

All candidates for the B.A. in music must complete seventy-seven hours of course work outside of music, including all General College requirements and four Arts and Sciences Perspectives courses (General College and Arts and Sciences requirements are described elsewhere in this bulletin). In addition to completing the music department's core curriculum as described above, students pursuing the B.A. in music must complete an additional twelve hours in the department. Taken together with the thirty-one hours required by the music core, students will thus complete a total of forty-three hours in music; combined with the seventy-seven hours outside the department, students will complete 120 hours overall.

B.A. Concentrations. While students are not required to identify an area of concentration in the B.A., they may do so in consultation with the director of undergraduate studies. Possible areas of concentration include (but are not restricted to) jazz, popular music, performance, composition, theory, or history.

Additional Requirements for the B.Mus. Degree. All candidates for the B.Mus. degree must complete fifty-eight hours outside of music, including all General College requirements and four Arts and Sciences Perspectives courses. In addition to completing the music department's core curriculum as described above, students pursuing the B.Mus. must complete eight semesters of applied instruction (sixteen hrs. total) and four additional semesters of an appropriate departmental ensemble (eight hrs. total). Students must also complete eleven additional hours of
music elective credit to total sixty-two hours of music; combined with fifty-eight hours outside of music, students will complete 120 hours overall.

**B. Mus. Concentrations.** While students are not required to identify an area of concentration in the B. Mus., they may do so in consultation with the director of undergraduate studies. Possible areas of concentration are performance or composition. Students may also elect a course of study in preparation for the fifth-year M.A.T. program offered through the School of Education.

**Honors in Music:** Students interested in becoming candidates for a degree with honors in music should read the regulations governing the honors program in the College of Arts and Sciences and should consult the honors adviser of the department early in the junior year. Note, also, the freshman and sophomore honors program, as explained elsewhere in this bulletin.

**Undergraduate Minors in Music**

The department offers three minors in music. Music 31/31L is a prerequisite to all three curricula; additional requirements are outlined below.

**Music History and Music Theory.** In addition to the successful completion of Music 31/31L, students must complete 32/32L, two courses from the 51-53 sequence, and two electives from the following: Music 37/37L, the remaining course from the 51-53 sequence, 33, 35, 38, 64, 65, 95, 104, 161, or any 100-level course in music history (permission of the instructor needed for 64, 65, and 100-level courses). Applied study and participation in performance activities are recommended but not required, and performance credits do not count toward the minor.

**Musical Performance.** In addition to the successful completion of Music 31/31L, students must complete one course in Music History from Music 51, 52, or 53, and one additional course from the following: Music 32/32L, one of the remaining courses from the 51-53 sequence. In addition, students must complete 10 credit hours in performance, including a minimum of two semesters of applied lessons (1 credit hour each) and a minimum of two semesters of credit in a large ensemble, such as band, choir, orchestra (1 credit hour each). Pianists and guitarists may substitute small ensembles as appropriate.

**Jazz Studies.** In addition to the successful completion of Music 31/31L, students must complete Music 35, 45, 63a, 69, and 80.

**Lecture Courses in Music**

9A Winds and Percussion Techniques (2). This course will introduce students in the Pre-MAT Curriculum to basic performance skills on representative wind, brass, and percussion instruments. Topics will include tone production, fingerings, tuning, acceptable competency levels. Fall

9B Strings, Piano, and Voice Techniques (2). This course will introduce students in the Pre-MAT Curriculum to basic performance skills on strings, keyboard and voice. Topics will include bowing, scales, clefs, accompanying, vocal physiology, part-reading and literature. Fall

10J Junior Recital (1). Students elect this course to receive credit for their junior recital. By permission of the associate chair of applied studies in the Department of Music. Fall, spring.

10S Senior Recital (1). Prerequisite, Music 10J. Students elect this course to receive credit for their senior recital. By permission of the associate chair of applied studies in the Department of Music. Fall, spring.

17 Advanced Problems (3). Prerequisite, Music 9A and 9B. A continuation of MUSC 9A/9B, allowing students opportunity to further develop performance skills, and pedagogical techniques in Music Education through intensive study in wind, string, percussion and vocal areas. Spring.

20 Fundamentals of Music for Classroom Teachers (3). Not for music majors. Rudimentary theory and ear training, melody harmonization, keyboard, and other instrumental facility, ensemble arranging. Incorporates the latest trends of public school music in the curriculum. Mock.

21 Fundamentals of Music I (3). Notational and theoretical materials of music, with singing and keyboard skills developed. Intended for the non-major who wishes to learn to express musical ideas in clear, correct notational form. Fall and spring. Glasscock, Whang, Wissick, and staff. GC Aesthetic/Fine Arts perspective.

22 Fundamentals of Music II (3). Not for music majors. Prerequisite, Music 21 or equivalent. A continuation of Music 21 with the addition of basic instrumentation and arranging. Fall and spring. Staff.

27 Honors Seminar in the Fine Arts (3). Topics are announced. Not for music honors candidates; music majors admitted by permission of instructor. Staff.

31 Theory-Musicianship I (3). Prerequisite, Music 31L. An intensive introduction to music for students intending to continue in the department's music-theory core courses. The course also covers basic contrapuntal writing and introductory principles of harmony and voice-leading. For non-majors by permission. Fall. Anderson, Covach, Maiani, Neff, Warburton. GC Aesthetic/Fine Arts perspective.

31L Theory and Musicianship Lab I (1). Prerequisite, Music 31L. Computer-assisted instruction in basic musicianship skills, including music notation, basic composition, score analysis, keyboard, sight-reading, and ear-training. Fall. Anderson, Covach, Maiani, Neff, Warburton.


33 Analysis of Popular Music (3). Prerequisite, Music 37/37L. Analysis of blues, rock, ballad, and jazz, with an emphasis in rock music since 1955. Regular assignments, some requiring musical transcription from recorded sources. Spring. Covach.

35 Jazz Theory (3). Prerequisite, Music 21 or 31. An introduction to the musical materials of jazz, including chord/Scale relationships, functional keyboard skills, and harmonic analysis. Fall. Warner.

36X Introduction to Keyboard Skills (1). A systematic approach to the keyboard through the acquisition of fundamental skills. Required for music majors who have had no formal keyboard training. Staff.

36B Keyboard Skills II (1). Prerequisite, Music 36A. Music 36B continues the development of keyboard skills established in Music 36A. Required for music majors. Fall. Rowan, Whang.

37 Theory-Musicianship III (3). Prerequisite, Music 32/32L with a grade of C or better; corequisite, Music 37L. A continuation of Music 32 covering aspects of chromatic harmony, form, and modulation. Fall. Anderson, Covach, Neff, Warburton.


38 Analysis of Twentieth-Century Music (3). Prerequisite, Music 37/37L. The study of analytical techniques as applied to the music of Debussy, Stravinsky, Bartok, Schoenberg, and others. Fall. Anderson, Covach, Neff, Warburton.

39 Introduction to Music Technology (3). The course will deal with several aspects of computerized music technology. The primary emphasis will be on music notation. Other topics will include sequencing, MIDI keyboards, storing and manipulation of sounds. Fall, spring, summer.

40 The Language of Music (3). Not for music majors. Introduction to the language of music. Students develop skills of score reading, vocabulary for communicating about music, discriminating listening habits, and study several significant complete compositions. Reading knowledge of music desirable. Fall and spring. McKinnon, Nadas. GC aesthetic/fine arts perspective.

41 Survey of Western Music History (3). Students will study the history of style in Western Classical music from roughly 1500 to the present. Text comes with supporting tapes. Three papers on selected complete pieces. Fall, spring, summer. Andrews, Bonds, Finson, McKinnon. GC aesthetic/fine arts perspective.

42 Masterpieces of Music (3). Not for music majors. One major work of Western art music will be heard and discussed each week. Music vocabulary and background will be developed appropriate to comprehending each work. Fall and spring. Andrews, Finson, Haar, McKinnon. GC aesthetic/fine arts perspective.


45 Introduction to Jazz (3). No prerequisite. Not for music majors. An introduction to musical materials and the development of discriminating listening habits in conjunction with the study of the origins and the major stylistic developments of jazz, as well as its historical and cultural context. Fall and spring. Paolantonio, Smith. GC aesthetic/fine arts perspective.

46 Introduction to the Study of World Music (3). The study of music as a component of culture. Survey of selected music cultures including Native American, Northern Indian, Australian Aborigine, Ghanaian, and Black and white influences in modern popular music. Goertzen. GC aesthetic/fine arts perspective.

51 Studies in Music History to 1650 (3). Music in its historical context and the developing musical language from Classical antiquity through 1650. Works by Landini, Dufay, Josquin, Monteverdi, and others. Written papers and listening assignments. Spring.


53 Studies in Music History Since 1850 (3). Prerequisite, Music 31/31L. Music in its historical context since the mid-nineteenth century. Topics include nationalism, the crisis in tonality, neoclassicism, serialism, minimalism, and postmodernism. Works by Wagner, Mahler, Debussy, Schoenberg, Stravinsky, and others. Spring. Andrews, Bonds, Finson.

55 Topics in the History and Culture of Music (3). Prerequisites, Music 51, 52, 53. Topics will vary each semester and may address a particular genre, composer, compositional issue, or repertoire, including non-Western and popular music. May be repeated for credit with permission of the director of undergraduate studies. Fall, spring.

60, 61, 62 Diction for Singers I, II, III (1 each). Basic principles of diction for singers in English/Italian, German, and French. Introduction to diction through the use of International Phonetic Alphabet, which is presented first in the English/Italian course. Fall and spring. Rhodes, Wing.

63 Jazz Improvisation I (3). Prerequisite, Music 37/37L. An introductory course in the development of improvisational skills for the jazz idioms. The primary focus of this course is the introduction of nomenclature, the development of basic jazz vocabulary, and the application of this knowledge using basic jazz tune types. Warner, Ketch.

63B Jazz Improvisation II (3). Prerequisite, Music 63A. Music 63B extends the teaching initiated in Music 63A. This course examines more advanced improvisational techniques, harmonic materials, and compositional tune types. Spring. Warner, Ketch.

64 Classical Form (3). Prerequisite, Music 38. The analysis and writing of forms in imitation of the Classical style. Spring. Staff.

65 Counterpoint (3). Prerequisite, Music 37/37L. The study of two-, three-, and four-voice counterpoint in the style of Palestrina, Bach, or in twentieth-century idioms, designated according to need. Spring. Anderson, Neff, Warburton.

66 Introduction to Composition (3). Prerequisite, Music 38. The study of compositional techniques and the development of individual creative styles through imitative and original writing. May be repeated for credit. Fall and spring. Anderson.

67 Instrumentation (3). Practical exercises in scoring and arranging for various combinations from single instrumental choirs to full concert orchestra, with trial group performances. Fall. Anderson, Wisick.

68 Conducting (2). Basic conducting techniques, score reading, and music performance evaluation for choral and instrumental groups. Spring.

69 Jazz Composition and Arranging (3). Prerequisite, Music 21 or 31. An introduction to composing and arranging for small- and large-group jazz ensembles. Spring. Warner.

70, 71 Piano Pedagogy I and II (3 each). Prerequisite, two years of piano instruction at the college level. I: Problems, materials, and methods in teaching beginning piano to children; II: Problems, materials, and methods in teaching piano to older students of high school and early college age. (Primarily for B.M. candidates.) Fall and spring. (Alternate years.)

72, 73 Keyboard Skills: Music Education I (1 each). Prerequisite, Music 68. Development of skills in harmonization, improvisation, and transposition, especially for music education students. Fall and spring. Staff.

74 Orchestration (3) Prerequisite, music majors, minors, performance instruction. Practical orchestral scoring with emphasis on understanding and imitating historical styles from Mozart through Ravel. Fall, spring. Anderson.

78 Conducting Practicum (2). Prerequisite, Music 68. Continued study of conducting techniques, score reading, rehearsal techniques and procedures. Practical experience working with UNC-Chapel Hill student ensembles. Fall. Huff, Kalam.
80 Masters of Jazz (3). Prerequisites, Music 21, 31, or 45: The music of Armstrong, Ellington, Parker, Davis, and Coltrane. Technical, historical, and social issues are examined through score and transcription study, readings, guided listenings, lectures, discussions, videos, and performances. Spring. Ketch.

81 Popular Song in American Culture (3). Nonmajors only. The relationship between popular song and culture in American society is explored by focusing on an important historical repertoire or interpretive theme. Specific course topics vary. Fall or spring. Finson, Covach.

82 Bach and Handel (3). The culmination of Baroque music, emphasizing Bach’s cantatas, concertos, organ music and instrumental music, and Handel’s oratorios and operas in their cultural contexts. Fall or spring. McKinnon, Schülenberg.

83 Haydn and Mozart (3). The high point in Viennese music of the late eighteenth century, emphasizing Haydn’s symphonies and quartets, and Mozart’s operas and piano concertos. Fall or spring. Andrews, Bonds, Haar.

84 Beethoven and His Era. Beethoven’s music will be studied in the context of social structures and concepts about artists during Beethoven’s lifetime. Fall or spring. Bonds, Finson, Haar, Warburton.

85 Musical Modernism. Lectures will emphasize audible features evident in the work of diverse composers characteristic of modern style. Relationships to art and popular music will be considered. Fall or spring. Warburton.


87 Music in the Theatre (3). An introduction to music in its relationship to drama, especially the development of opera and related genres. Study of selected works from different periods and styles. Andrews.

88 The Orchestra and Its Music (3). Nonmajors only. Study of the symphony orchestra, its instruments, and its historical development from the mid-eighteenth century to the present, and the music it plays, including selected works of a variety of styles. Andrews, Bonds, Finson, Wissick.

89 Studies in Music Literature (3). More intensive study of a selected body of music literature. Topics, to be announced in advance of each semester’s offerings, might include: twentieth-Century Music, The String Quartet, Romantic Opera, and others according to demand and faculty availability. Staff.

90 Senior Seminar (3). For music majors. Topics vary: a composer, a genre, or specific music of an era. Historical, theoretical, or performance problems in the music selected for study. Oral presentations, term paper. Staff.

91 Women in Opera (WWMST 89) (3). Prerequisite, music majors, minors, performance instruction. An examination and exploration of women’s changing roles, onstage and behind the scenes, in the 400-year history of opera; the influence of women on the course of opera. Fall, spring. Rhodes.

92 Orchestration (3). Practical orchestral scoring with emphasis on understanding and imitating historical styles from Mozart through Ravel. Fall. Anderson.

93 Composition (3). Prerequisite, Music 66, music majors, minors, performance instruction. Original compositions in various forms. May be repeated for credit by composition majors. Fall, spring. Anderson.

94 Lieder Practicum (3). Prerequisite, music majors, minors, performance instruction. Analysis and performance study of German art song with emphasis on textual factors and accompanying skills. Permission of instructor required. Zenge.


96 Advanced Conducting I (3). Prerequisite, Music 78, music majors, juniors, performance instruction. Fall and spring. Kalam, Klebanow.

97 Advanced Conducting II (3). Prerequisite, Music 78, music majors, juniors, performance instruction. Fall and spring. Kalam, Klebanow.

98 Special Studies for Undergraduates (3). Intensive study on a particular topic under the supervision of a qualified member of the staff. For music majors, with special permission of the department. Fall and spring. Staff.

99 Honors Project in Music (3). The completion of a special project, approved by the department, by a student who has been designated a candidate for undergraduate honors. Fall and spring. Staff.

101 Resources and Methods of Musicology (3). Introduction to the scope, methodology, and bibliography of musicology. Extensive use of music library, preparation for advanced seminars, and sound research procedures are stressed. Fall. Bonds, Nádas.

103 Introduction to Asian Music (3). A survey of the traditional and folk music of the major civilizations and the island cultures of Asia. Methods, resources, and philosophies of ethnomusicology will also be considered.

104 Folk Music of Europe and the New World (3). A study of folk music in European countries, emphasizing similarities in the British Isles and southern United States.

110 Advanced Musicianship I (3). Advanced study in sightreading (including techniques related to solfège, reading in clefs, dictation and keyboard (including figured bass, harmonization, improvisation, and score reading). Fall and spring. Neff, Schülenberg, Warburton.

114 Twentieth-Century Harmonic Techniques (3). Prerequisite, Music 38.


133 Folk, Popular, and Art Music in Nineteenth-Century America (FOLK 107) (3). How identities and changes in selected genres of folk, popular, and art music illustrate social, racial, and economic aspects of nineteenth-century America. Music literacy not a prerequisite. Fall. Goertz.


135 American Music (3). Its growth and development from the early colonies to the present. Warburton.

136 Performance Practices (3). Problems of rhythm, ornamentation, articulation, and expression in both instrumental and vocal music, with emphasis on the period from 1550-1825 and practical applications in an informal collegium musicum. Luby, Schülenberg, Bonds, Wissick.

140 Oratorio (3). Study of the development of the genre from its origin to the present, with emphasis on the seventeenth and eighteenth centuries, the period of its most active cultivation.

141 The Madrigal (3). Its international flowering, especially at the peak of music’s Renaissance Era. Haar.

142 Opera (3). A survey of the types, national and international trends, conflicts, and chief masterworks from opera’s beginning around 1600 to the present. Andrews, Finson, Nádas, Warburton.

144 Art Song (3). A study of the development of this genre, especially during its great flowering in the Lieder, melodies, and other national types of the nineteenth century. Zenge.

147 The Symphony (3). The growth of the symphony as an independent orchestral genre, especially in the masterworks from the mid-eighteenth century to the present. Andrews.

148 Keyboard Music (3). A historical survey that follows either stringed keyboard music through the harpsichord, clavichord, and piano, or organ music in its successive stages. Zenge.

149 Genre Studies (3). Other specific surveys of genres, forms, and styles of music in keeping with Music 140-148. Staff.
150 Joseph Haydn (3). The man and his times, his music, and its styles. Bonds.
151 J. S. Bach (3). With special attention alternately to the vocal and the instrumental works. Schulanberg.
152 Mozart (3). Andrews, Haar.
153 Beethoven (3).
154 Handel (3).
155 Brahms (3).
156 Wagner and Verdi (3).
157 Debussy and Ravel (3). Warburton.
158 Stravinsky and Schoenberg (3). Warburton.
159 Composer Studies (3). Other specific surveys in keeping with Music 150-158.
160 Pedagogy of Theory (3). Prerequisite, Music 38, or permission of instructor. Techniques of teaching: evaluation of current books, scores and anthologies covering all aspects of sight-singing, keyboard, analysis, and written approaches to harmony and counterpoint. Practical classroom experience.

Applied Music Requirements and Credits

All study of applied music in the Department of Music, both individual and group, has a fourfold purpose: (1) full training in the skills and techniques of the particular instrument or voice, (2) broad exploration into its literature, (3) application of principles and stylistic approaches introduced in the theory and history courses, (4) varied experience in public performance.

The system of applied music credits differs for majors and nonmajors. One hour per week of individual instruction in the main performance medium earns two semester hour credits for all music majors in the B.A. and B.Mus. programs. One hour per week of individual instruction throughout a semester earns one semester hour credit for nonmusic majors, as well as for music majors in an area which is not the student's main performance medium. Class instruction in applied music for nonmajors will be given as the demand warrants, with one and one-half hours of class instruction weekly, plus daily practice.

The appropriateness of any student's study at a particular level is determined by audition before the time of enrollment and by jury examination at the end of each term. Every freshman music major and all nonmusic majors will enroll for individual instruction with credit under Music 1-6. To continue as a music major beyond the freshman year, a grade of C or better is required in the last freshman semester. After the first year, music majors will enroll under Music 11-16.

B.Mus. candidates must enroll throughout their undergraduate residency for at least one hour per week of individual instruction in the main performance medium. B.Mus. candidates will participate in ensembles for eight semesters; B.A. candidates must complete four semesters of an appropriate ensemble. Pianists will meet part of these requirements through studio accompanying, as directed by the chairman of the piano department. Pianists will include at least two semesters of choral ensemble. Instrumentalists in the B.Mus. program, with the exception of keyboard and guitar majors, will satisfy ensemble requirements through participation in Orchestra or Symphonic Band. A music major may enroll for individual instruction in other instruments, or class instruction in applied music, or other ensembles, depending upon his or her abilities, needs, interests, and available time.

Instruction in Applied Music

Instruction for academic credit in voice, piano, and most other instruments is available to University students; fees are described below. Music majors are given priority, but nonmajors are also welcomed, subject to the limits of available faculty time.

All students must enroll during the regular University registration period at the beginning of each term. For University students there are two important procedures:

1) Registration for academic credit is done in the manner as for other classes in the University (i.e., by, registration or "drop-add" with the student’s adviser, dean, and the registration office).

2) Procedures leading to billing and assignment to a teacher are initiated in the Music Office in Hill Hall.

Music fees are paid during the registration period. When the Music Office receives a receipt, the student will be allowed to begin lessons.

University students who are not music majors may receive 0.5 semester hours credit for one half-hour lesson per week during the semester, or one hour credit for one hour lesson (or one and one-half hours of class lesson) per week during the semester.

Applied Instruction Fees (per semester)

<table>
<thead>
<tr>
<th>Lesson Type</th>
<th>Credit Hours per Week</th>
<th>Fee</th>
</tr>
</thead>
<tbody>
<tr>
<td>One hour private lesson (or one and one-half</td>
<td>0.5</td>
<td>$290.00</td>
</tr>
<tr>
<td>hours of class lesson) per week</td>
<td></td>
<td></td>
</tr>
<tr>
<td>One half-hour lesson per week</td>
<td>1.0</td>
<td>$150.00</td>
</tr>
</tbody>
</table>

Practice Room and Facilities Fees (per semester)

<table>
<thead>
<tr>
<th>Description</th>
<th>Fee</th>
</tr>
</thead>
<tbody>
<tr>
<td>Music majors enrolled for private instruction</td>
<td>$45.00</td>
</tr>
<tr>
<td>Voice majors</td>
<td>$35.00</td>
</tr>
<tr>
<td>All other majors</td>
<td>$25.00</td>
</tr>
</tbody>
</table>

Others enrolled for applied instruction

<table>
<thead>
<tr>
<th>Description</th>
<th>Fee</th>
</tr>
</thead>
<tbody>
<tr>
<td>Piano, organ, harp, and percussion</td>
<td>$35.00</td>
</tr>
<tr>
<td>(one hour per day)</td>
<td></td>
</tr>
<tr>
<td>Voice (one hour per day)</td>
<td>$25.00</td>
</tr>
<tr>
<td>All other (one hour per day)</td>
<td>$15.00</td>
</tr>
</tbody>
</table>
Other Fees
Instrument rental (any instrument) for one semester: $30.00
Padlock rental, duration of student's stay in the department: $5.00

Note: The schedule of fees is subject to change each year.

Applied Music Teachers
Piano: Zenge, Chair; Astrakhan, Causey, Fahey, Gardner, McAdoo, Miller, Rowan, Sargeant, Warner, Whang
Organ: Harris
Harpischord: Schulenberg
Voice: Wing, Chair; Dittmann, Greene, Kotulski, Lowe, Rhodes, Szymanksi, Vana, Zeiss
Strings: Wissick, Chair
Violin: Luby, Matthews
Viola: Partridge
Violoncello: Wissick
Bass: Link
Guitar: Stewart
Harp: Laurance
Wind, Brass, and Percussion Instruments: Glasscock, Chair
Flute: Smith, Clark
Oboe: Schultz
Clarinet: Oehler
 Saxophone: Doyle
Bassoon: Pederson
Horn: Halverson
Trumpet: Ketch, McChesney
Trombone: Kris
Tuba: Lewis
Percussion: Glasscock, Limbert

Applied Music Courses
Individual instruction for one hour or one half-hour per week, each semester, is available in voice and most instruments, subject to the limits of available faculty time, with fees and variable credit as described above. A large variety of ensembles is open to students subject to approval of the conductor after audition. Undergraduates receive one hour of credit per semester for each ensemble course.

Applied Music Courses are designated as follows:
1A Piano
1B Organ
1C Harpsichord
1Z Class Piano
2 Voice
2Z Class Voice
3A Violin
3B Viola
3C Violoncello
3D String Bass
3E Harp
3F Guitar
3Z Class Strings
4A Flute
4B Oboe
4C Clarinet
4D Saxophone
4E Bassoon
4F Recorder
4Z Class Woodwinds
5A French Horn
5B Trumpet
5C Trombone
5D Tuba
5Z Class Brass
6 Percussion
6Z Class Percussion
7A University Symphony
7B Chamber Orchestra
7C Symphonic Band
7D New Music Ensemble
7E Jazz Lab Band
7F Brass Chamber Ensemble
7G Woodwind Chamber Ensemble
7H String Chamber Ensemble
7I University Chamber Players
7K Piano Ensemble
7L Marching/Pep/Lab Band
7M Guitar Ensemble
7N Percussion Ensemble
7P Concert Band
7U University Band
8A Carolina Choir
8B University Mixed Chorus
8C University Chamber Singers
8D Men's Glee Club
8E Opera Theatre
8F Women's Glee Club
8G Collegium Musicum
11A Piano Major
11B Organ Major
12 Voice Major
13A Violin Major
13B Viola Major
13C Violoncello Major
13D String Bass Major
13E Harp Major
13F Guitar Major
14A Flute Major
14B Oboe Major
14C Clarinet Major
14D Saxophone Major
14E Bassoon Major
15A French Horn Major
15B Trumpet Major
15C Trombone Major
15D Tuba Major
16 Percussion Major
Department of Naval Science
CAPTAIN DOUGLAS B. GUTHE JR., USN, Chair

Professor
Captain Douglas B. Guthe Jr., USN.

Associate Professor
Lieutenant Colonel Thomas S. Ceci, USMC.

Assistant Professors
Major Michael J. Snyder, USMC,
Lieutenant Commander Michael T. Vogel, USN.

Instructors
Lieutenant Joseph Carrigan, USN,
Lieutenant Frank G. Wakeham, USN.

Since its commissioning in 1941, the Naval ROTC unit of The University of North Carolina at Chapel Hill has commissioned hundreds of officers into the Navy and the Marine Corps. The proud tradition established at Chapel Hill is highlighted by the fact that at one time only the Naval Academy had commissioned more naval officers than this University.

The purpose of the Naval Reserve Officers Training Corps is to provide a source of highly qualified officers to serve on ships, as aviators, submariners, or in the Marine Corps. Additionally, the NROTC Program offers scholarships for students pursuing a degree in nursing. Students (midshipmen) who obtain a baccalaureate degree and who satisfy academic and physical requirements are commissioned as either an Ensign in the Navy or Second Lieutenant in the Marine Corps. Nursing degree students receive an Ensign commission in the Navy Nurse Corps. Students may participate in NROTC in one of two programs, the NROTC Scholarship or the NROTC College Program. NROTC Scholarships provide for books, fees, tuition, uniforms, and a monthly allowance of $150. Students participating in the College Program receive their NROTC books, uniforms, and a monthly allowance of $150 during the junior and senior years. A major advantage of the college program is the excellent opportunity to win two- and three-year NROTC scholarships.

Regardless of enrollment category, many things are common to both programs:

A. Most Naval Science courses are accredited.
B. No military obligation is incurred until the sophomore year for scholarship midshipmen and until the junior year for college program midshipmen.
C. The benefits of a Navy scholarship are not affected by other types of financial aid for which a student may qualify.
D. All midshipmen who successfully complete program and graduation requirements receive commissions as officers in the Navy or Marine Corps.
E. Applicants are considered without regard to race or sex.

Midshipman Life
Maximum attention is dedicated to ensuring that each midshipman leads a full and productive university life. Midshipmen are encouraged to participate on university athletic teams as well as in campus politics, fraternities, dormitories, intramurals, sororities, and other organizations. Additionally, midshipmen are provided an outstanding opportunity to examine and experience many alternative career patterns, social events, and experiences through field trips, summer cruises, and the midshipman military organization.

NROTC Program
Midshipmen take the same basic Naval Science courses and laboratories in the first two years. This involves a combination of Naval Science courses and a selection of Peace, War, and Defense Curriculum courses designed to provide a well-rounded individual to commissioned service. During the junior and senior years, students who desire a commission in the Marine Corps take Naval Science 53 and 54 in place of Naval Science 51, 52, 61, and 62. Midshipmen pursuing a nursing degree participate in an abbreviated NROTC curriculum.

Further information regarding application for and admission in the UNC-Chapel Hill Naval ROTC may be obtained by visiting the Naval Armory on campus, or addressing an inquiry to the Professor of Naval Science, CB# 3325, The University of North Carolina at Chapel Hill, Chapel Hill, NC 27599-3325 or by calling (919) 962-1198/2344. Further information regarding the national Naval ROTC program is available from any Navy or Marine Corps Recruiting Station or any established Naval or Marine Corps Reserve Unit.

Course Descriptions
31 Introduction to Naval Science (PWAD 31) (0). Fundamental orientation to Naval service emphasizing the mission, organization, regulations, customs and traditions, broad warfare components, and major challenges facing Naval/Marine Corps officers. Fall. Staff.

32 Naval Ships Engineering Systems (PWAD 32) (3). An introductory course and survey of ship design, characteristics, propulsion (including nuclear power) and control systems, and the principles of ship stability. Spring. Staff.

41 Naval Weapons Systems (PWAD 41) (3). A descriptive survey course in engineering aspects of ships weapons guidance, control, and propulsion systems and characteristics of ships weapons system. Fall. Staff.

51 Navigation (PWAD 51) (3). A comprehensive study of the theory, principles, and procedures of ship navigation, movements, and employment. Course includes spherical trigonometry, mathematics, analysis, study and practice, spherical, triangulation, sextants, navigation publications, and report logs. Covers rules of the road, lights, signals, and navigational aids, including inertial systems. Fall. Staff.

51L Navigation Laboratory (PWAD 51L) (1). Corequisite, NAVS 51. Practical application of the theories and principles of navigation as presented in the lecture series. Fall. Staff.

52 Naval Operations (PWAD 52) (4). A study of the maneuvering of ships in formation, the nautical rules of the road for inland and international waterways, and the operation in which naval vessels engage daily. Spring. Staff.
52. Naval Operations Laboratory (PWAD 52L). Prerequisite, NAVS 52. Practical application of the theories of naval operations as presented in the lecture series. Spring. Staff.

53. Evolution of Warfare (PWAD 53). Prerequisite, NAVS 52. Survey of the evolution of warfare through the study of selected campaigns and classic battles, with special emphasis on the principles of war, the military impact of leadership, and the evolution of tactics, weapons, and weaponry. Fall. Staff.

54. Amphibious Warfare (PWAD 54). A survey of the projection of sea power ashore, with special emphasis on the evolution of an innovation in amphibious warfare in the twentieth century, through the study of historical amphibious landings and campaigns. Spring. Staff.

55L. Marine Option Naval Science Laboratory (PWAD 55L). One laboratory hour per week designed to introduce topics and activities relevant to the professional development of the prospective Marine Corps Officer. Required for Marine Option 2/C. Fall and spring. Staff.

61. Naval Leadership and Management (PWAD 61). Prerequisite, NAVS 61. A study of organizational principles, management theory, and leadership styles as they apply in the Navy and Department of Defense. Fall. Staff.

62. Naval Leadership and Management (PWAD 62). Capstone leadership course in NROTC curriculum, emphasizing leadership skills and their ethical implications for the competent commissioned officer in areas of human resources and material management. Spring. Staff.

70L. Naval Science Laboratory (PWAD 70L). Prerequisite, NAVS 70L. Meets once a week to provide supplemental military training including close order drill, physical fitness, inspections, guest lectures, and leadership training. Required of all NROTC students each semester. Fall and spring. Staff.

Department of Operations Research

J. SCOTT PROVAN, Chair

Professors

Associate Professor
Mark E. Hartmann.

Operations research is concerned with effective decision-making when managing complex, large-scale systems. Operations research makes use of a combination of mathematical models, computer software, and common sense to analyze the constraints and relationships that determine the operation of a complex system. This knowledge is then used to control the functioning of that system so as to obtain the most desirable goals and outcomes.

During the past fifty years, operations research has developed into a discipline in which methods and analyses are used throughout industry, government, and other large organizations. Students are regularly employed in such diverse organizations as airlines, telecommunications companies, health agencies, and software/consulting firms.

The Department of Operations Research offers instruction in the principal areas of operations research, providing students with skills in the modeling of real-world decision problems, the use of computer software to solve these models, and the mathematical methodology by which these solutions are found. The department offers an undergraduate major in the Mathematical Sciences Bachelor of Science degree program. For well-qualified students, this undergraduate degree can be combined with one year of graduate study to obtain a Master of Science in Operations Research. The interested student should contact the Curriculum in the Mathematical Sciences for further information.

Students with no college mathematics who wish to become familiar with the use of decision models in a wide variety of applications are encouraged to take OR 14, Models for Decision Making. This course fulfills the General College mathematics distributional requirements.

Course Descriptions

14 Models for Decision Making (3). Prerequisite, Math 10 or exemption. Operations Research is the science of formulating and solving problems in decision making using mathematical models. Includes topological introductions to concepts such as optimal allocation of a limited resource, decisions under uncertainty, risk, expected return. Three lecture hours per week. Fall. Staff.

140 Mathematical Models for Decision Making (3). Prerequisite, Math 81. The use of mathematics to describe and analyze large-scale decision problems. Situations involving the allocation of resources, making decisions in a competitive environment, and dealing with uncertainty are modeled and solved using suitable software packages. Fall.


183 Stochastic Models in Operations Research (3). Prerequisite, Biostatistics 160 or Statistics 126. Introduction to Markov chains, Poisson process, continuous-time Markov chains, renewal theory. Applications to queueing systems inventory, and reliability, with emphasis on systems modeling, design, and control. Spring. Staff.

190 Computational Mathematics for Decision Sciences (3). Prerequisite, permission of instructor. Reviews basic mathematical and computational theory required for analyzing models that arise in operations research, management science, and other policy sciences. Solution techniques that integrate existing software into student-written computer programs will be emphasized. Fall.

Department of Pathology and Laboratory Medicine

JOE W. GRISHAM, Chair
James D. Folds, Vice Chair
J. Charles Jennette, Vice Chair

Professors
Associate Professors

Assistant Professors

Clinical Professors

Clinical Associate Professors
Thomas B. Clark III, Pamela A. Groben.

Clinical Assistant Professors

Clinical Instructor
Myron E. Hinsdale.

Research Professor
Marjorie S. Read.

Research Associate Professors

Research Assistant Professors
Hyung-Suk Kim, Laura H. Reid.

Research Instructor
Oleg V. Gorkun.

Lecturer
Gayle McGhee.

 Jointly Appointed Faculty

Professors

Associate Professors

Assistant Professor
W. Eugene Sanders.

Clinical Assistant Professors
Allen C. Rinas, John L. Schmitz.

Research Associate Professor
Jeffry F. Goodrum.

Adjunct Faculty

Adjunct Professors

Adjunct Associate Professors

Adjunct Clinical Professor

Adjunct Clinical Professor
Peter M. Banks.

Clinical Associate Professor
Deborah L. Radisch.

Research Professor
Robert C. Brown.

Professors Emeriti

Pathology is the study of disease, its causes, development, and consequences. It is concerned with basic mechanisms of disease processes (pathobiology), and their structural/functional manifestations. It combines the tools and the basic knowledge from many disciplines, such as biochemistry, genetics, immunology, molecular biology, and clinical sciences, to clarify the cause (etiologic), natural course (pathogenesis), and diagnosis of disease.

Faculty members in the Department of Pathology maintain active research programs, and engage in training of predoctoral students and postdoctoral fellows in a wide range of research endeavors. Undergraduate students interested in participating in pathobiological research should consider registering for PATH 162.

Course Descriptions

134 Biology of Blood Diseases (BIOL 134) (3). Prerequisite, Biology 52 or permission of instructor. An introduction to the biology and pathophysiology of blood and the molecular mechanisms of some human diseases, including malignant neoplasms, anemias, hemophilia, thrombophilies, atherosclerosis, and viral infections. Fall. Church.
162 Experimental Pathology. Hours, credits, and instructor to be arranged on an individual basis. This course involves hands-on research experience in a predetermined instructor's laboratory. Students have the opportunity to learn and apply specific techniques and to participate in investigations of molecular mechanisms responsible for disease processes (pathobiology). Contact director of graduate studies in Pathology for more information. May be repeated.

163 Electron Microscopy (4). Prerequisite, permission of instructor. Theoretical and practical aspects of electron microscopy. Application of transmission and scanning electron microscopy to pathology, with emphasis on ultrastructure of cells and organelles. Two lecture and six laboratory hours a week. Fall. Bagnell.

164 Light Microscopy (3). Prerequisite, permission of instructor. Course focuses on practical fundamentals of light microscopy including optics, contrast mechanisms, fluorescence, laser scanning confocal microscopy, photography, and digital imaging. Three lecture hours a week. Spring. Bagnell.

174 Advanced Human Genetics (Genetics 174) (3). Prerequisites, one previous course in genetics and permission of instructor. Topics in human genetics including the molecular basis of genetic disease, special methods used in human genetics research, and molecular genetic principles learned from studies of humans. Three lecture hours a week. Spring 1998 and alternate years. Farber.

178 Human DNA Metabolism (2). Prerequisite, a basic biochemistry course is required. The course will examine the molecular biology of DNA replication, recombination, repair and recombination as these processes occur in human cells. Spring 1999 and alternate years. Kaufmann.

Curriculum in Peace, War, and Defense

RICHARD H. KOHN, Chair

Professors
Bernard R. Boxill (Philosophy), E. Willis Brooks (History), Mark Clodfelter (Aerospace Studies), Cori Dauber (Communication Studies), Richard J. Field (Naval Science), Howard Harper (English), Don Higginbotham (History), Richard H. Kohn (History), Eric Mlyn (Political Science), James B. Rhoads (Military Science), John Schopler (Psychology), Lars Schoultz (Political Science), Dietrich Schroeder (Physics and Astronomy), Russel Van Wyk (History).

Curriculum Overview

Peace and war are among the oldest dreams and most difficult challenges of human experience. The curriculum brings together faculty and courses from many disciplines to provide undergraduates with a wide range of approaches to the fundamental issues of human conflict and national and global security and defense. Recently revised to reflect changes in world affairs and the academic strengths of the University, the curriculum introduces majors to interdisciplinary perspectives with a core of three courses, including "The Ethics of Peace, War, and Defense" (PHIL 42/PWAD 69) and "Peace and War" (HIST 89/PWAD 78). A flexible program of electives permits majors to concentrate in one of three topical areas: The Culture of Peace and War; National and International Defense and Security; and The Evolution of Warfare. In addition to course work, the curriculum sponsors guest speakers and field trips, and provides majors with help and advice on internships and career planning.

The curriculum prepares majors for graduate work in several of the humanities and social sciences, for a variety of professional schools, and for a wide range of employment. Graduates have found employment with federal agencies, state and local governments, banks, and other businesses. Others have attended graduate and professional schools in government, history, international relations, and law. The strength of the curriculum is its broad, interdisciplinary perspective combined with its depth of focus on topics that span the range of human experience across time and national boundaries, from science and technology to ethics and public policy.

The curriculum's offices are on the fourth floor of Hamilton Hall, where visitors and members of the University community are always welcome. Prospective majors should visit the chair of the curriculum, and visit the Web site <http://www.unc.edu/depts/pwad> as soon as they become interested.

Bachelor of Arts with a Major in Peace, War, and Defense

General College:
All General College requirements must be met. Majors should consider, in fulfilling General College requirements, the following courses as helpful preparation for the curriculum: ANTH 41; ECON 10; HIST 16, 17, 18, 21, 22; MATH 22; PHIL 22, 37; POLI 41, 52, 86; PSYC 10; SOCI 10; and STAT 11.

The Major:
A minimum of nine courses (twenty-seven hours) from the curriculum's offerings as follows:

A. Core Requirement:
PWAD 68 (Phil 42, "The Ethics of Peace, War, and Defense"); PWAD 78 (HIST 89, "Peace and War"); and at least one course chosen from PWAD 86 (Poli 86, "World Politics and International Relations"), PWAD 141 (Poli 141, "Theories of War and Peace"), PWAD 149 (Poli 149, "Defense Policy and National Security"), or PWAD 162 (COMM 174, "War and Culture").

B. Concentration Requirement:
Four courses (no more than three from any one discipline) from one of the following areas:

1. The Culture of Peace and War
Afri 120 Southern Africa
Anth 80 War and Culture
Comm 73 Rhetoric of War
Comm 174 War and Culture
Engl 196 Images of War in Twentieth-Century Literature
Engl 196A Images of War: First World War
Engl 196B Images of War: America in Vietnam
Engl 196C Literature of World War II
Hist 102A Ancient Greek Warfare
Hist 127B War and Society in Early Modern Europe
Hist 144 World War II
Hist 148 Civil War and Reconstruction, 1848-1877
Hist 153A The Vietnam War
Law 252 International Law
Poli 69 Personality and Political Aggression
Poli 138 Power, Morality, and Foreign Policy
Poli 147 Contemporary Inter-American Relations
Poli 153 Constitutional Policies and the Judicial Process
Psyc 186 Nonviolent Conflict Resolution
Reli 120 Religion and Nationalism
Roml 104 Violence and Religion in Literature
Slav 165 Literature of Atrocity
Slav 167 Ethnic and Linguistic Conflicts in the Former Yugoslavia
Soci 143 Conflict and Bargaining

2. National and International Defense and Security
Afrl 120 Southern Africa
Anth 80 War and Culture
Econ 161 International Economics
Geog 20 The Character of World Regions
Geog 153 Political Geography
Hist 141 International Relations, 1870 - 1919
Hist 142 International Relations, 1919 - present
Hist 152 United States Foreign Relations, 1919 - present
Law 252 International Law
Phys 84 Science, Technology, and Military Arts
Poli 69 Personality and Political Aggression
Poli 71 Public Policy Analysis
Poli 82 Evolution of the International System
Poli 86 International Relations and World Politics
Poli 87 Latin America and United States in World Politics
Poli 138 Power, Morality, and Foreign Policy
Poli 139 Alternative Approaches to Peace and Security
Poli 141 Theories of War and Peace
Poli 144 American Foreign Policy
Poli 147 Contemporary Inter-American Relations
Poli 149 Defense Policy and National Security
Psyc 186 Non-Violent Conflict Resolution
Pwad 64 Air Power and Modern Warfare
Reli 120 Religion and Nationalism
Slav 165 Literature of Atrocity

3. The Evolution of Warfare
Hist 63 History of Sea Power
Hist 68 War and American Society to 1903
Hist 69 War and American Society, 1903 - Present
Hist 102A Ancient Greek Warfare
Hist 127B War and Society in Early Modern Europe
Hist 144 World War II
Hist 146 Revolution and Nation-Making in America
Hist 148 Civil War and Reconstruction, 1848 - 1877
Hist 153A The Vietnam War
Phys 84 Science, Technology, and Military Arts
Poli 86 International Relations and World Politics
Poli 139 Alternative Approaches to Peace and Security
Poli 141 Theories of War and Peace
Poli 149 Defense Policy and National Security
Pwad 64 Air Power and Modern Warfare
Slav 165 Literature of Atrocity
Slav 167 Ethnic and Linguistic Conflicts in the Former Yugoslavia

C. Minor Requirement:
Two courses selected from the two subject areas not chosen for the concentration in B above.

Any course numbered 90 to 99 in Peace, War, and Defense may be substituted for courses in the major with the permission of the chair.

Course Descriptions
Introduction to Public Policy Analysis (PUPA 71) (3). Introduction to the elements of policy analysis by citizens, including definition of problems, criteria, alternatives, models, decision procedures, and political feasibility; illustrated by case studies. Fall. MacRae.

20 World Regional Geography (GEOG 20) (3). A survey of the geographic structure of human activity in major world regions and nations. Emphasis is upon current developments related to population, urbanization, and economic activity. Fall, spring, summer. Staff.

60 Rhetoric of War and Peace (COMM 73) (3). Explores philosophical assumptions and social values expressed by advocates of war and peace through a critical examination of such rhetorical acts as speeches, essays, films, literature, and song. Dauber.

63 History of Sea Power (HIST 63) (3). The influence of sea power on international affairs, including an overview of naval history, the development of American sea power, its central role, and its modern world impact. Spring. Caddell.

68 The Ethics of Peace, War, and Defense (PHIL 42, POLI 68) (3). Authority of the state and ethos of its acts; pacifism and national defense; the ethics of revolution; the moral problems of war in the nuclear age; the moral conditions of peace. Fall. Buxill.


76 War and American Society to 1903 (HIST 69) (3). The American military experience from colonial to the twentieth century. Major themes include the problem of security, the development of military policies and institutions, and the social and political factors which have influenced war. Fall. Kohn.

77 War and American Society, 1903 to the Present (HIST 69) (3). Survey of America’s military experience in the twentieth century, focusing on national security policy, military institutions, World Wars I and II, the Cold War, the Korean and Vietnam Wars, and recent interventions. Spring, Kohn.

78 Peace and War (HIST 89) (3). The emphasis will be historical, with conceptual tools from other disciplines used when appropriate. Theoretical explanations, militarism, the international system, internal order, and the search for peace will be among the topics. Spring. Brooks.

80 War and Society (ANTH 80) (3). See Anthropology 80 for description.

82 Evolution of the International System (POLI 82) (3). An examination of the changes in the nature of the international system from about 1870 to the present, emphasizing changing patterns of alliance politics and crisis behavior. Fall or spring. Snyder.

84 Science, Technology, and Military Arms (PHYS 84) (3). The effect of modern scientific-technological developments on military strategy. Topics include nuclear weapons and their effects; arms control; nuclear and chemical biological weapons proliferation, conventional high-technology weapons. Fall. Schroer.
International Relations and World Politics (POLI 86) (3). The analysis of politics among nations. Fall and spring. McKeown, Mlyn, Obier.

Latin America and the United States in World Politics (POLI 87) (3). A survey of the events, institutions, and issues that have dominated relations between Latin America and the United States. Fall or spring. Schultze, Hartlyn.

Seminars in Peace, War, and Defense (3). Seminars on aspects of peace, war, and defense. Past topics have included arms control, public opinion and national security, and the Cold War. Staff.

Honors in Peace, War, and Defense (3). Directed research, on an independent basis, for majors who are preparing an honors thesis and for the oral examination on the thesis. Fall. Staff.

Honors in Peace, War, and Defense (3). Directed research, on an independent basis, for majors who are preparing an honors thesis and for the oral examination on the thesis. Spring. Staff.

Directed Readings in Peace, War, and Defense (3). Intensive directed readings on a facet of peace, war, and defense. Open to majors in PWAD and to other qualified students. May be taken only once. Fall and spring. Staff.

Ancient Greek Warfare (HIST 102A) (3). War and the warrior in the archaic and classical Greek world, seventh-fourth centuries B.C. Fall or spring. McCoy.

The Vietnam War (HIST 133A) (3). A wide-ranging exploration of America's longest war from nineteenth-century origins to 1990s legacies, from village battlegrounds to the Cold War context, from national leadership to popular participation and impact. Fall. Hunt.

Religion, Fundamentalism, and Nationalism (RELI 120) (3). An exploration of explosive combinations of religion and politics in the Islamic revolution, the Palestinian movement, Hindu nationalism in India, and Christian fundamentalism in America. Spring. Ernst.

Southern Africa (AFRI 120) (3). Prerequisite, African Studies 40 or equivalent. Study of the history, politics, and economic development of Southern Africa in the twentieth century. Fall. Nyang'oro.

War and Society in Early Modern Europe (HIST 127B) (3). A critical examination, from the Renaissance to the Napoleonic period, of the changes in European land and Naval warfare and their impact on society and government. Fall, spring. McIntosh.

Power, Morality, and Foreign Policy (POLI 138) (3). Prerequisite, Poli 86 or permission of instructor. To what extent can, and should, moral concerns be integrated into national foreign policies? An examination of theoretical alternatives as well as selected substantive issues (e.g., human rights, just war, food policy, development assistance). Fall.

Alternative Approaches to Peace and Security (POLI 139) (3). This course will introduce students to alternative conceptions of security, including mutual security, cooperative security, and collective security. Course presumes students will have background in history, security, or international relations. Spring. Mlyn.

History of International Relations, 1870-1919 (HIST 141) (3). Examines the interaction of European alliances, the impact of imperialism on international politics, the outbreak of World War I, and the diplomacy and peacemaking of that war. Fall. Alternate years. Van Wyk.

Theories of War and Peace (POLI 141) (3). Prerequisite, Political Science 86 or permission of instructor. Theories of international relations, with emphasis on the role of force, causes of conflict, and conditions of cooperation. Fall or spring. Donnelly.

History of International Relations, 1919 - Present (HIST 142) (3). A study of the "new diplomacy," totalitarian foreign policy in the 1930s, the diplomacy of World War II, the Cold War, and the reemergence of the multipolar balance of power. Alternate years. Van Wyk.

Conflict and Bargaining (SOCI 143) (3). Conflict and conflict-resolution behavior. Applications to labor-management relations, family, sports, community politics, international relations. Cramer.

American Foreign Policy (POLI 144) (3). Prerequisite, Political Science 86 or permission of instructor. The role of Congress, the press, public opinion, the President, the Secretary and the Department of State, the military, and the intelligence community in making American foreign policy. Emphasis is placed on the impact of the bureaucratic process on content of foreign policy. Fall and spring. Staff.

History of the Second World War (HIST 144) (3). Origins, course, and effects of World War II, including all theaters, the impact at home, the Holocaust, the role of intelligence, and new technologies like radar, jets, and atomic bombs. Spring. Weinberg.


Contemporary Inter-American Relations (POLI 147) (3). A comprehensive analysis of hemispheric international relations and foreign policies of individual Latin American nations. Spring. Schultze.


Defense Policy and National Security (POLI 149) (3). Prerequisite, Political Science 86 or permission of instructor. A study of national defense policy as affected by the constitutional and political setting, as well as its relation to foreign policy. Some attention to strategic doctrine. Staff.

United States Foreign Relations in the Twentieth Century (HIST 152) (3). How the United States came to occupy a leading role in world affairs as a diplomatic, military, economic, and cultural power and what that role has meant to Americans and to other peoples, especially during the Cold War. Spring. Hunt.

Political Geography (GEOG 153) (3). Geographic aspects (nation formation; boundary, territorial, and ethnic issues; and regional blocks) in contemporary international affairs. Case studies are in Eurasia and Africa. Fall or spring. Eyer.

Constitutional Policies and the Judicial Process (POLI 153) (3). Analysis of the structure and functions of judicial systems emphasizing the organization, administration, and policies of judicial bureaucracies and roles of judges, juries, counsel, litigants, and interested groups in adjudication processes. Fall. Richardson.

International Economics (ECON 161) (3). Prerequisite, Economics 100 or 101. An introduction to international trade, the balance of payments, and related issues of foreign economic policy. Fall and spring. Black, Conway, Field, Hagivara.

War and Culture (COMM 174) (3). This course examines American cultural myths about war generally and specifically about the causes of war, enemies, weapons, and warriors, and the way these myths constrain foreign and defense policy, military strategy, and procurement. Fall. Dauber.

Literature of Atrocity: The Gulag and the Holocaust in Russian and East European Literature (SLAV 165) (3). Literary representation in fiction, poetry, memoirs, and other genres of the mass annihilation and terror in Eastern Europe and the former Soviet Union under the Nazi and Communist regimes. Spring. Levine.

Ethnic and Linguistic Conflicts in Former Yugoslavia (SLAV 167) (3). This course explores the role of linguistic controversies in the polarization of ethnic relations in former Yugoslavia. Topics: the Yugoslav idea, language, and nationalism; ethnic tension; the unleashing of ethnic conflicts. Fall, spring. Greenberg.
Department of Pharmacology

RUDOLPH L. JULIANO, Chair

Professors

Associate Professors

Assistant Professors
Lee M. Graves, Lian Li, John Sondek.

Research Associate Professors
Philip L. Carl, Gayle E. Lester.

Research Assistant Professors
Daniel Altschulen, Jose Boyer, Ulhas Naik, Jozef Spychala.

Adjunct Professors

Adjunct Associate Professors
Kenneth S. Korach, Thomas Spector.

Professors Emeriti

The Department of Pharmacology offers courses to undergraduate students but does not offer a formal major leading to an undergraduate degree. Courses are available to premedical, dental, and pharmacy students as well as students pursuing science majors. The Department of Pharmacology places a high priority on the training of graduate students for productive careers in pharmacological sciences.

Unique among the basic sciences, pharmacology combines fundamental laboratory research with the development of drugs to prevent and treat human disease. The scope of investigation includes studies of the mechanism of action of drugs, hormones, and growth factors, the development of drugs for the treatment of cancer, infections, arthritis, psychoses, and other diseases, and the study of toxic chemicals in the environment.

Course Descriptions

55-56 General Pharmacology (3 each). Prerequisites, all preceding courses in chemistry, biology, bacteriology, and physiology in the Pharmacy School curriculum or their equivalent. A course for pharmacy students. General principles, as they apply to the major drug classes, will be stressed. Fall and spring. Dudley.

123 Behavioral Pharmacology (Neurobiology 123, Psychology 123). Prerequisites, Pharmacology 216, or Psychology 101 and 106, or their equivalent. Basic principles of pharmacology and of the experimental analysis of animal behavior will be considered in relation to drugs that affect the central nervous system. On demand. Staff.

189 Molecular Biology Techniques (Biol 189, Genet 189, Micro 189, Phco 189, Phyi 189) (4). Prerequisites, some molecular biology, permission of the instructor. These one- and two-week intensive courses are part of the Carolina Workshops series. Topics emphasized vary, but usually include techniques such as isolation of nucleic acids, blotting, cloning in viruses and plasmids, and DNA sequencing. Fall, spring, and summer courses available. Litaker and staff. Fee required. Eight laboratory hours.

Department of Philosophy

DOUGLAS C. LONG, Chair

Distinguished Professors

Professors
Course Descriptions

Logic

Note: These courses fulfill the Mathematical Skills, but not Philosophical Perspective Requirement.

21 Introductory Symbolic Logic (3). Prerequisite, MATH 10. Introduction to the theory of deductive reasoning. Fall and spring. Resnik, Munsat, Simmons, staff.

21H Introductory Symbolic Logic (3). Honors. Fall and spring. Resnik, Munsat, Simmons, staff.

71 Topics in Logic (3). Varying content but topics may include alternative logics, decision theory, probability, and induction. May be repeated for credit with the permission of the instructor. Fall or spring. Resnik, Simmons.

General Introductory Courses

20 Introduction to Philosophy: Main Problems (3). An introduction to the study of philosophy through the examination of major philosophical problems. Specific content varies by section. Consult Department of Philosophy for details. Fall and spring. Staff.

20H Introduction to Philosophy: Main Problems (3). Honors. Fall and spring. Staff.

22 Introduction to Ethics (3). An introduction to the study of moral issues and philosophical questions concerning morality. Fall and spring. Staff.

22H Introduction to Ethics (3). Honors. Fall and spring. Staff.

24 Introduction to Philosophy: Great Works (3). An introduction to the study of philosophy through examination of major texts that have shaped the history of philosophical thought. Fall and spring. Staff.

Topical Introductory Courses

30 Applied Ethics (3). An introduction to applied ethics surveying a variety of moral issues. Topics may include: war, medical ethics, media ethics, sexual ethics, business ethics, racism, sexism, capital punishment, the environment. Spring, summer. BA-level philosophical perspective.

31 Philosophy of Science (3). What is the relationship between observation and theory? Are observations objective? Can theories ever be proven? Fall or spring. Schlesinger, Resnik.

32 Philosophy of Religion (Religion 32) (3). A philosophical inquiry into the problems of religious experience and belief, as expressed in philosophic, religious, and literary documents from traditional and contemporary sources. Fall and spring. Nord, Schlesinger.

33 Philosophical Problems about Art (3). A discussion of philosophical problems concerning art and art appreciation. Fall or spring. Vance.

34 Bioethics (3). The ethical basis of moral and legal problems generated or made acute by advances in biology and medicine, e.g., abortion, euthanasia, patient rights, experiments with human subjects, genetic manipulation. Fall and spring. Bar-On, D. Long, staff.


36 Philosophy of the Social Sciences (3). An examination of competing philosophical views on the nature of social science and its relation to natural science, with emphasis on the concepts of law and explanation of historical, sociological, and psychological contexts. Spring. Zaffron. Social science perspective.
Social Ethics and Political Thought (3). Individual rights, social responsibility, legal authority, civil authority, civil disobedience, war and peace. Readings selected from classical and contemporary writings. Fall and spring. Postema, Hill, B. Boxill, J. Boxill.

Experience and Reality (3). An introduction to metaphysics, exploring issues such as the nature of persons, our experience of things, the mind-body relation, appearance vs. reality, space and time, the character of the external world, a deity. Spring. Bar-On, Rosenberg, Vance, Lycan, Simons.

Supporting Courses

Morality and Law (3). An examination of morality and law—their natures, interrelationship, and selected problems. Fall or spring. Postema, Hill.

The Ethics of Peace, War, and Defense (Political Science 68, Peace, War, and Defense 68) (3). Authority of the state and the ethics of its acts; pacifism and national defense; the ethics of revolution; the moral problems of war in the nuclear age; the moral conditions of peace. Fall or spring. B. Boxill, J. Boxill.

The Claims of Science and Religion (Religion 33) (3). The proposition that God exists as a scientific hypothesis. Evidence for and against the hypothesis. The status of other minds and free will in science and religion. Conflicting views about creation, revelation, miracles, and prayers. Spring. Schlesinger.

Philosophical Issues in Feminism (Women's Studies 46) (3). Moral issues of equal rights and justice; sex role stereotypes; equal opportunity and reverse discrimination; abortion; philosophers' theories of feminism. Fall and spring. J. Boxill, Antony.

Ethics of Sports (3). A conceptual and theoretical analysis of the moral significance of sport, concentrating on issues such as racism, sexism, gender equity, violence, and drug use. Fall, summer. J. Boxill.

Contemporary Issues and Philosophy (3). A study of one or more issues of contemporary concern from a philosophical perspective. Consult the Department of Philosophy for specific course content. Fall or spring. Staff.

History of Philosophy

Asian Philosophy (3). An examination of some of the philosophical traditions of Asia. Possible topics include Advaita Vedanta, Nyaya-Vaiśeshika, Madhyamaka Buddhism, Neo-Confucianism, Mohism, and philosophical Taoism. Fall. Long.

Afro-American Political Philosophy (Afro-American 55) (3). A philosophical examination of the writings of African Americans on slavery, racism, and discrimination. Among the main figures studied are Martin Delany, Frederick Douglass, Booker T. Washington, W. E. B. DuBois, Marcus Garvey, and Martin Luther King. Fall or spring. B. Boxill.

Ancient Philosophy (3). A philosophical examination of the writings of the pre-Socratics, Plato, Aristotle, Epicureanism, Stoicism, Neoplatonism, and Greek Skepticism. Fall and spring. Galligan, R. Long.


Modern Philosophy: Descartes to Hume (3). Prerequisite, one course in Philosophy. Topics from major rationalist and empiricist philosophers such as Descartes, Spinoza, Leibniz, Locke, Berkeley, and Hume. Fall or spring. Vance.

American Philosophy (3). A survey of the major American philosophers and movements from Jonathan Edwards to the present. Fall. Smyth.


Existential Philosophy from Kierkegaard to Sartre (3). An examination of existentialism and the philosophy of being, as presented in the work of such authors as Kierkegaard, Nietzsche, Marcel, Heidegger, Jaspers, and Sartre. Fall. Smyth.


Advanced Courses

Note: Prerequisite, one course other than Philosophy 21

History of Ethics (3). A survey of major developments in the history of moral philosophy, examining in detail selections from philosophers from Plato to Nietzsche. Philosophy 22 recommended as prerequisite. Fall or spring. Hill, R. Long, Sayre McCard.

Contemporary Ethical Theory (3). Intensive study of the most important writings in moral philosophy in the twentieth century. Philosophy 22 recommended as a prerequisite. Fall or spring. Hill, Sayre McCard, Blackburn.

Theory of Knowledge (3). Examination in detail of several theories of knowledge, evidence, truth, and perception. Special topics: knowledge of physical objects, minds, objects of scientific theories and of mathematics. Fall or spring. D. Long, Lycan, Rosenberg, Simmons, Blackburn.

Reference and Meaning (3). Survey of major topics in contemporary philosophy of language including truth and meaning, speech acts, reference, descriptions, names, and demonstratives. Fall or spring. Bar-On, Blackburn, Lycan, Rosenberg.

Metaphysical Systems (3). Study of recent attempts to frame a comprehensive world view. Particular attention will be given to the problem of revising traditional categories in response to developments in other branches of knowledge. Fall or spring. Smyth, Simmons.

Topics in the Philosophy of Mind (3). Survey of major issues in the philosophy of mind, including the mind-body problem, explanation of action, and nature of mental states. Readings from classical and contemporary sources. Fall or spring. Blackburn, D. Long, Lycan, Munsat, Rosenberg, Vance.

Political Philosophy (3). Advanced discussion of competing philosophical approaches to questions of justice, authority, freedom, rights, and the like including Libertarianism, Liberalism, Communitarianism, Marxism, and Feminism. Fall or spring. B. Boxill, R. Long, Postema.

Seminar in Selected Topics (3). Small seminar setting for intensive exploration and classroom discussion of a central topic in contemporary philosophy. Students will present papers in class and critique papers of other students. Fall or spring. Vance, staff.

Colloquium for Philosophy Majors (3). Discussion of selected philosophical topics. Recommended for Philosophy majors, normally to be taken in the spring semester of their junior year. Spring. Vance, staff.

Directed Readings (3). See the director of undergraduate studies of the department. Fall and spring. Staff.

Courses for Undergraduates and Graduates

Note: Prerequisite for the following courses, one course other than Philosophy 21 unless otherwise specified. Instructors may waive prerequisites.

101 Symbolic Logic (Linguistics 104) (3). Introduction for graduates and advanced undergraduates not taking the 21-71 sequence. Fall. Resnik, Simmons.
102 Selected Topics in the History of Moral Philosophy (3). Prerequisite, two courses in philosophy other than Philosophy 21 (Philosophy 70 recommended) or permission of instructor. Study of major figures in the history of moral thought, such as Plato, Aristotle, Butler, and Kant. The philosophers to be studied will vary from year to year. Fall. Hill, Sayre McCord.

103 Philosophy of Art (3). Development of a comprehensive and systematic philosophy of art and criticism through examination of contrasting aesthetic theories and works of art. Spring. Vance.


105 Political Philosophy from Hobbes to Rousseau (3). Prerequisite, two courses in philosophy other than Philosophy 21 (Philosophy 57 or 78 recommended) or permission of instructor. Hobbes and the modern state; Locke on individual rights; Rousseau, democracy and its problems. Fall. B. Boxill, Postema.

106 Philosophy of Mathematics (3). Prerequisites, Philosophy 101 or permission of instructor. Philosophical problems concerning logic and the foundation of mathematics. Fall or spring. Resnik, Simmons.

107 Philosophy, History, and the Social Sciences (3). The nature of historical explanation, structural and functional explanation, the weighing of historical testimony, the concept of meaning, normative judgments and predictions in the social sciences. Fall or spring. Zaffron.

108 Philosophy of Natural Sciences (3). Concept formation, verifiability, law, explanation, the role of logic and mathematics in the sciences, and other topics. Fall. Schlesinger.

109 Philosophical Problems in Psychology (3). The nature and validation of psychological concepts, laws and theories; the theories of the mind, with emphasis on the comparative study of such concepts as motivation, intention, emotion, and action. Fall or spring. Zaffron.

110 Philosophy of Language (Linguistics 110) (3). Prerequisite, two courses in philosophy other than Philosophy 21 (Philosophy 74 recommended) or permission of instructor. A study of important contemporary contributions in philosophy of language, meaning, reference, and truth. Fall or spring. Bar-On, Lycan, Munsat, Antony.

111 Advanced Symbolic Logic (3). Prerequisite, Philosophy 101 or permission of instructor. Presupposes propositional and quantification logic as a basis of further deductive development with special attention to selected topics: alternative systems, modal and deontic logic, inductive logic, the grammar of formalized languages, paradoxes and foundations of mathematics. Spring. Resnik, Simmons.

112 Contemporary Moral Philosophy (3). Prerequisite, two courses in philosophy other than Philosophy 21 (Philosophy 72 recommended) or permission of instructor. An examination of issues that have arisen in moral philosophy in this century, e.g., fact and value, reason and morality, and the nature of morality. Fall or spring. Blackburn, Hill, D. Long, Sayre McCord.

113 Philosophy of Law (3). Study of classical and contemporary theories of law and legal reasoning: the role of morality in the formation, discovery, and application of law. Fall. Postema.

114 The Beginnings of Analytic Philosophy (3). Prerequisite, two courses in philosophy other than Philosophy 21 or permission of instructor. An introduction to the major figures and movements of contemporary analytic philosophy. Russell, Moore, early Wittgenstein, Ayer, Ryle, Logical Atomism, Logical Positivism, Philosophical Behaviorism. Fall or spring. Blackburn, Lycan, Rosenberg.

115 Foundations of Mathematics (3). Prerequisite, Philosophy 101 or permission of instructor. The study of formal foundations of mathematics. Basic results concerning consistency, completeness, and undecidability. Constructive consistency proofs for elementary number theory. Fall or spring. Resnik, Simmons.

116 Current Issues in Analytic Philosophy (3). Prerequisite, two courses in philosophy other than Philosophy 21 or permission of instructor. Dealing with some of the most significant contributions made by philosophers in the last ten years or so in the areas of epistemology and metaphysics. Spring. Bar-On, Blackburn, Schlesinger.

117 Philosophy of Mind (3). Prerequisite, two courses in philosophy other than Philosophy 21 (Philosophy 76 recommended) or permission of instructor. A critical survey of major theories of the mental such as dualism, behaviorism, the identity theory, and forms of functionalism. Problems of mental awareness and of consciousness will be emphasized. Fall or spring. Bar-On, Blackburn, D. Long, Lycan, Rosenberg.

120 Contemporary Moral and Social Problems (3). Prerequisite, two courses in philosophy other than Philosophy 21 or permission of instructor. A detailed examination of one or more of the following contemporary issues: environmental ethics, animal rights, abortion, euthanasia, pornography, racism, sexism, public versus private morality. Fall or spring. B. Boxill, D. Long, Sayre McCord.


130 Recent Developments in Political Philosophy (3). Prerequisite, two courses in philosophy other than Philosophy 21 (Philosophy 78 recommended) or permission of instructor. A philosophical study of works by major contemporary contributors (e.g., Rawls, Arrow, Wolff, Walzer, Nozick) to such topics as justice, equality, democratic decision-making, legitimate authority, political obligation, natural rights. Fall or spring. Postema, B. Boxill.

142 Philosophy in Literature (Comparative Literature 142) (3). Selected literary classics from ancient times to the present, emphasizing changing approaches to such perennial problems as human nature and destiny, evil, freedom, and tragedy. Spring. Smyth.

145 History of Aesthetics (Comparative Literature 145) (3). Ancient and modern positions in aesthetics with attention to their philosophical foundations and their significance for the study of literature, including Plato, Aristotle, Plotinus, Kant, and Hegel. Spring. Smyth.

150 Plato (3). An examination of some representative works of Plato, with reference to common emphases and basic problems, together with an analysis of their philosophic content. Fall. Galligan, R. Long.


152 Topics in Medieval Philosophy (Religion 132) (3). An intensive study of some medieval philosophical authors (e.g., Aquinas, Scotus, or Ockham) or topic (e.g., arguments for the existence of God, universals, knowledge of individuals). Spring. Galligan, R. Long.

153 Continental Rationalism (3). The metaphysical systems of Descartes, Spinoza, and Leibniz as seventeenth century attempts to reconcile the medieval tradition and the early developments of modern natural science. Fall or spring. Smyth, Munsat.


156 Hegel (3). Hegel’s Absolute Idealism: its roots in Kant’s critical philosophy and its influence on subsequent thought in Europe and America. Fall or spring. Smyth, Postema.

158 Existentialism and Phenomenology (3). A study of one or two major systematic works by Sartre, Heidegger, or Merleau-Ponty. Spring. Smyth.

178 Health Care, Science, and Philosophy (Physical Therapy 178) (3). Interdisciplinary course to develop critical thinking capacities through philosophical study of the nature of scientific presuppositions and concepts, including events, causality, and determinism, with specific application to health care issues. Fall. Schlesinger, Mitchell.

190 Set Theory and Logic (3). Prerequisite, Philosophy 101 or permission of instructor. Natural and real numbers. Infinite cardinal and ordinal numbers. Alternative axiom systems and their consistency problems. Spring. Resnik, Simmons.

Department of Physical Education, Exercise and Sport Science

FREDERICK O. MUELLER, Chair

Professors

Associate Professors

Assistant Professors
Kevin M. Guskiewicz, Diane E. Stevens, Bonita L. Marks.

Lecturers
Meredith Busby, Susan Chappell, Marian Turner Hopkins, Margaret M. Lanchantin, R. Theresa Pagano, Lindsay Reeves, Sherry Salyer.

Adjunct Professors
John Anderson, Pierre Morell, David Sheps, Timothy Taft.

Adjunct Assistant Professors
Michael T. Gross, Daniel Hooker.

Professors Emeriti
Carl S. Blyth, Patrick F. Earey, Boyd L. Newnam, Francis Pleasants Jr.

Course work in the Department of Physical Education, Exercise and Sport Science serves a variety of student needs including: instruction in the knowledge and skills of our common cultural sports, dances, and fitness activities; provision of adapted physical activity for the atypical student, and a liberal arts study of sport and exercise science.

B.A. with a Major in Physical Education

Increased interest in sports, physical fitness, exercise, and wellness has produced diverse career options beyond the more traditional role of physical educator in schools and colleges. Completing the degree requirements for the Bachelor of Arts with a major in Physical Education provides the student with the background necessary to pursue a variety of careers in the health-related fitness field, the management of these programs, and the management of more traditional sport programs in a variety of settings. Course requirements for the major in Physical Education, Exercise and Sport Science are fulfilled by successful completion of the eight three-hour courses listed below:

Required Courses for Major in Physical Education, Exercise and Sport Science

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
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<tbody>
<tr>
<td>PHYE 73</td>
<td>Research in Physical Education, Exercise and Sport Science</td>
</tr>
<tr>
<td>PHYE 75</td>
<td>Anatomy</td>
</tr>
<tr>
<td>PHYE 76</td>
<td>Physiology</td>
</tr>
<tr>
<td>PHYE 77</td>
<td>History and Principles of Physical Education</td>
</tr>
<tr>
<td>PHYE 80</td>
<td>Motor Skill Learning</td>
</tr>
<tr>
<td>PHYE 81</td>
<td>Sport Psychology/Sociology</td>
</tr>
<tr>
<td>PHYE 85</td>
<td>Biomechanics of Sport</td>
</tr>
<tr>
<td>PHYE 89</td>
<td>Physiological Basis of Human Performance</td>
</tr>
</tbody>
</table>

A minimum of eighteen hours, six courses, must be completed with a grade of C or higher (not a C average).

Students majoring in Physical Education have the option of strengthening their background in specific related areas by taking courses referred to as enhancement electives. These electives should be chosen following a discussion of their career goals with an appropriate faculty member in the department. Completion of enhancement electives does not constitute a more specific major. These electives are not required for the major and are not noted on the transcript other than being listed with all courses taken for the degree program. The academic record will indicate only that the major is Physical Education, Exercise and Sport Science. Sample enhancement electives for exercise physiology, sport administration, and sport psychology are available from departmental advisers. There are three specific areas in which a student may choose to take enhancement electives:

Exercise Physiology: Electives taken related to this area provide a stronger background in exercise science leading to graduate study and/or careers in the medical, health care, and fitness industries.

Sport Administration: Electives taken related to this area provide for greater development of leadership skills and practical knowledge needed to administer sport programs and businesses.

Sport Psychology: Electives taken related to this area provide a stronger background in the understanding of human behavior in exercise and sport.

Undergraduate Athletic Training Track

The undergraduate Athletic Training Track is a nationally accredited program as determined by The Commission on Accreditation of Allied Health Education Programs (CAAHEP). Students can become involved in athletic training as undergraduates as early as the freshman or sophomore year.
During this time, students are assigned observational hours in Fetzer Gym Training Room, where they gain exposure to injury evaluation, treatment, and rehabilitation. Students who wish to continue with athletic training as a career path should declare Physical Education, Exercise and Sport Science as their major. These students are then encouraged to take enhancement courses for the Athletic Training Track. These courses, along with practical experience at clinical settings, will qualify the student for taking the National Athletic Trainers’ Association (NATA) Certification Examination upon graduation from UNC-Chapel Hill.

Prerequisites for taking PHYE 65 (Fundamentals of Athletic Training) and receiving a clinical assignment include: 1) minimum of fifty observational hours in the Fetzer Training Room; 2) PHYE 75 (Anatomy) and PHYE 88 (Emergency Care of Injuries); and 3) permission of the director of the Undergraduate Athletic Training Track.

Interested students should attend an organizational meeting held on the first Tuesday of every semester at 7 p.m. in the Sports Medicine Research Laboratory. For more information, contact Dr. Kevin Guskiewicz at 962-5175 or <gus@email.unc.edu>.

In addition to the College of Arts and Sciences general education requirements and the eight common core classes for Physical Education, Exercise and Sport Science, students in the Athletic Training Track should take the following enhancement courses if they wish to sit for the NATA Certification Examination:

Enhancements for the Athletic Training Track

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
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<tbody>
<tr>
<td>PHYE 41</td>
<td>Personal Health</td>
</tr>
<tr>
<td>PHYE 60</td>
<td>Sports Nutrition</td>
</tr>
<tr>
<td>PHYE 65</td>
<td>Fundamentals of Athletic Training</td>
</tr>
<tr>
<td>PHYE 66</td>
<td>Evaluation of Athletic Injuries</td>
</tr>
<tr>
<td>PHYE 67</td>
<td>Therapeutic Modalities</td>
</tr>
<tr>
<td>PHYE 68</td>
<td>Therapeutic Exercise and Rehabilitation</td>
</tr>
<tr>
<td>PHYE 69</td>
<td>Athletic Training Field Experience</td>
</tr>
<tr>
<td>PHYE 88</td>
<td>Emergency Care of Injuries &amp; Illness</td>
</tr>
</tbody>
</table>

Minor in Physical Education, Exercise and Sport Science

There are two options for pursuing a minor in the Department of Physical Education, Exercise and Sport Science. Each option requires a total of five courses in Physical Education. History and Principles of Physical Education (PHYE 77) is a required core course for both options. Biology 11 and Biology 11L are prerequisites for both options. Each option is outlined below:

Coaching Education Minor

Prerequisite: Biology 11 and Biology 11L

Required:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
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<tbody>
<tr>
<td>PHYE 57</td>
<td>Sport Skills III</td>
</tr>
<tr>
<td>PHYE 77</td>
<td>History and Principles of Physical Education</td>
</tr>
<tr>
<td>PHYE 88</td>
<td>Emergency Care of Injuries &amp; Illness</td>
</tr>
</tbody>
</table>

Two from:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
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<tbody>
<tr>
<td>PHYE 80</td>
<td>Motor Learning</td>
</tr>
<tr>
<td>PHYE 81</td>
<td>Sport Psychology</td>
</tr>
<tr>
<td>PHYE 85</td>
<td>Biomechanics</td>
</tr>
<tr>
<td>PHYE 86</td>
<td>Administration of Athletics and Physical Education</td>
</tr>
<tr>
<td>PHYE 87</td>
<td>Adapted Physical Education</td>
</tr>
</tbody>
</table>

One from:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>PHYE 55</td>
<td>Sport Skills I</td>
</tr>
<tr>
<td>PHYE 56</td>
<td>Sport Skills II</td>
</tr>
</tbody>
</table>

Exercise and Sport Science Option

Prerequisite:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>PHYE 77</td>
<td>History and Principles of Physical Education - Required core course</td>
</tr>
</tbody>
</table>

Four courses from:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>PHYE 59</td>
<td>Fitness Management</td>
</tr>
<tr>
<td>PHYE 60</td>
<td>Motor Skill Learning</td>
</tr>
<tr>
<td>PHYE 81</td>
<td>Sport Psychology/Sociology</td>
</tr>
<tr>
<td>PHYE 85</td>
<td>Biomechanics of Sport, Prerequisite: PHYE 75 Anatomy or Biology 45 and Biology 45L</td>
</tr>
<tr>
<td>PHYE 89</td>
<td>Physiological Basis of Human Performance, Prerequisite: PHYE 76, Physiology or Biology 45 and Biology 63L</td>
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</tbody>
</table>

Physical Education Courses For Undergraduates

41 Personal Health (3). Elective, open to all students. This course examines basic wellness concepts in the areas of physical fitness, nutrition, disease prevention, mental health, drug abuse, and human sexuality. Emphasis is upon the individual’s responsibility for his/her own health. Fall, spring, summer. Chappell, Murray.

55 Analysis of Sport Skills I (3). A professional preparation course for teaching and coaching. Covers the skills, knowledge, safety and progressions of softball/baseball, track and field, and basketball. Fall. Salyer.


57 Analysis of Sport Skills III (3). A professional preparation course for teaching and coaching. Includes basic instruction in coaching education and principles, pedagogy for coaching, conditioning for athletes and team building. Fall. Salyer.

59 Fitness Management (3). The assessment and promotion of physical fitness including concepts and techniques of fitness testing, principles of weight training, aerobic dance, nutrition, and stress management as applied in health/fitness settings. Fall. Reeves, staff.

60 Sports Nutrition (3). Prerequisite, PHYE 59 or permission of instructor. The role of nutrition in maximizing physical performance, promoting health and controlling body weight. Individual nutritional assessments are included. Spring, summer. McMurray, Hackney, Staff.

63 Women in Sports (3). A sociocultural study of the influence of work, leisure, politics, family, race, economics, education, and perceived roles on women’s participation in sports. Staff.

65 Fundamentals of Athletic Training (3). Prerequisites, PHYE 75, PHYE 88. This course is designed to introduce the undergraduate athletic training student to the athletic training profession and provide the basic knowledge and skills necessary to recognize, evaluate, and treat injuries to the head and face, cervical spine, thoracic region, and abdominal/urogenital region. Fall. Busby.
66 Evaluation of Athletic Injuries (3). Prerequisites, PHYE 75, 88, 65. This is an advanced athletic training course, designed to provide the athletic training student with knowledge and skills necessary to recognize and evaluate athletic injuries of the spine and extremities. Spring, Guskiewicz.

67 Therapeutic Modalities (3). Prerequisites, PHYE 75, 88, 65, 66. This is an advanced athletic training course, designed to provide the athletic training student with knowledge and skills necessary for treating injuries. Fall. Guskiewicz.

68 Therapeutic Exercise and Rehabilitation (3). This is an advanced athletic training course, designed to provide the athletic training student with knowledge and skills necessary for rehabilitating injuries. Spring. Busby.

69 Athletic Training Field Experience (1). This one-credit experience is required of all junior and senior athletic training students. Students register for one credit of field experience during each of their last four semesters. The experience offers implementation of theories and practices of athletic training and sports medicine under the supervision of a certified athletic trainer. Fall, spring. Guskiewicz.

73 Research in Physical Education, Exercise and Sport Science (3). An introduction to research in the fields of physical education, exercise and sport science with emphasis on understanding and application of research findings. Fall, spring, summer. Staff.

74 Health and Physical Education in the Elementary School (3). This course deals with methods and materials of health and physical education in school levels kindergarten through sixth grade. Required of elementary education majors. Does not count toward physical education major. Spring. Salyer.

75 Human Anatomy (3). The study of the structure of the human body with special emphasis on the musculoskeletal, articular, and nervous systems. Proctored cadaver materials are utilized to study the skeletal muscles and body viscera. Fall, spring, summer. Robinson, Guskiewicz.

75L Human Anatomy Laboratory (1). Prerequisite, Biology 11 Lab, CGPA 3.1, junior/senior standing or permission of instructor. PHYE 75L is a basic human anatomy laboratory course designed to accompany PHYE 75 for students endeavoring to major in the allied health professions. Fall, spring. Guskiewicz, Robinson.

76 Physiology (3). Prerequisite, PHYE 75 Anatomy or the equivalent of BIOL 11, 45. A lecture course in elementary physiology, covering the various systems of the body. Fall, spring, summer. McMurray, Hackney, Staff.

77 History and Principles of Physical Education (3). Open to all students as an elective course. A study of the relationship and contribution of physical education to general education, historical background, basic biological, physiological, and sociological backgrounds of the modern program. Fall, spring, summer. Hyatt.

79 Measurement and Evaluation in Health and Physical Education (3). This course is designed to acquaint students with tests and measurements in the field of health and physical education, test construction, scoring, and methods of using results. Spring, Salyer.


81 Sport Psychology/Sociology (3). A comprehensive introduction to psychological and sociological factors that relate to sport involvement and performance. Issues include psychological aspects of elite athletes, motivation and performance, intervention and performance enhancement, anxiety and skill performance, racial and gender discrimination in sport and violence in sport. Fall, spring, summer. Silva, Stevens.

82 Introduction to Applied Sport Psychology (3). Prerequisite, PHYE 81. Principles relevant to applied sport psychology will be introduced and discussed. Emphasis will be on using these techniques for overall mental health and performance enhancement. Spring. Silva, Stevens.

83 Physical Education for the Elementary School - Kindergarten Through Sixth Grade (3). This course deals with methods and materials of physical education in school levels kindergarten through the sixth grade. Required for physical education majors and elementary education majors; other students must secure written permission of instructor. Fall, summer. Mueller, Salyer.

84 Health Education for the Elementary School (3). This course includes principles, procedures, and practice in health at the elementary level. The course is required of all majors in elementary education. Fall or spring. Hyatt, Mueller.

85 Biomechanics of Sport (3). Prerequisite BIOL 45 and BIOL 45L or PHYE 75. The study and analysis of human movement including the fundamental aspects of the musculoskeletal and articular systems. Principles of biomechanics, including application to neuromuscular fitness activities, aerodynamics in sport, hydrodynamics, rotary motion, throwlike and pushlike patterns and the analysis of projectiles. Fall, spring, summer. Robinson.

86 Administration of Physical Education and Athletics (3). This course deals with the policies and problems of organization and administration of physical education and athletic programs in school. Fall. Mueller.

87 Adapted Physical Education (3). This course is a study of problems related to body mechanics and the needs of the physically handicapped student. Fall. Staff.

88 Emergency Care of Injuries and Illness (3). Theory and practice of basic first aid, cardiopulmonary resuscitation and the acute care of athletic injuries. Fall, spring, summer. Prentice, Murray, Lanchantin, Guskiewicz.

89 Physiological Basis of Human Performance (3). Prerequisites, BIOL 45 or PHYE 76. The study of physiological principles to sport and physical activity. Both immediate and chronic adaptations to exercise are studied. Two lecture and two laboratory hours a week. Fall, spring. McMurray, Marks.

90 Independent Studies in Physical Education (Var). Elective. Individually designed in-depth study of an area of interest within physical education, dance, sport, or health under the supervision of a selected member of the faculty. Credit varies from 1-3 hours. Fall, spring. Staff.

91 Theory and Practice of Ballet Technique (3). Elective. Prerequisites, PHYA 52 or PHYA 19Y or permission of instructor. An intensive study of ballet technique and philosophy, focusing in the physical principles of movement and their choreographic application. One hour seminar and 4 1/2 hours laboratory. Fall, spring. Hopkins.

92 Dance Repertory (3). Elective. permission of instructor (audition). The rehearsal and performance of works of choreography. Will include participation in both the technical and promotional aspects of production. Six laboratory hours a week. Fall, spring. Hopkins.

93 Theory and Practice of Modern Dance Technique - Elementary Level (3). Elective. Prerequisites, one semester of dance instruction or permission of instructor. An intensive study of modern dance technique and philosophy, focusing on the physical principles of movement and their choreographic application. One hour seminar and 4 1/2 hours laboratory. Fall, spring. Hopkins.

97 Theory and Practice of Modern Dance Technique - Intermediate Level (3). Elective. Prerequisites, PHYE 93 or permission of instructor. An intensive study of modern dance technique and philosophy, focusing on the physical principles of movement and their choreographic application. One hour seminar and 4 1/2 hours laboratory. Fall, spring. Hopkins.

98A Honors Fall Course (3). Prerequisite, CGPA 3.2 and permission of director of department's Honors program. Directed independent research under the supervision of a faculty adviser who teaches in the Physical Education, Exercise and Sport Science Curriculum. Fall. Faculty.

98B Honors Spring Course (3). Prerequisite, CGPA 3.2, PHYE 98A and permission of director of department's Honors Program. Preparation of an honors thesis and an oral examination on the thesis. Spring. Faculty.
Exercise Testing and Prescription in a Healthy Population (3).
Corequisite, PHYE 110L. Prerequisites, PHYE 76 and PHYE 89. Methods
and protocols for screening, evaluating, and prescribing exercise programs
for healthy adults. Emphasis is on exercise testing procedures and interpre-
tation of results to promote a healthy physically active lifestyle. Fall. Marks,
Mcmurray.

110L Laboratory for Exercise Testing (0).

Physical Education Activities Program

Two units of physical education activities and a swim-
messing test are required of all students. Two additional units
may be taken as nondegree-credit electives. These courses
may be chosen from the following list:

PHYA 1 Adapted Physical Education. Assignments to this class are made
for students with special needs in physical education focusing primarily on
acute and chronic physical limitations. Activities are assigned commensu-
rate with interests and abilities.

PHYA 3 Water Safety Instructor. The purpose of this course is to train an
instructor to teach American Red Cross progressive swimming and water
safety courses. Course content includes analysis of stroke mechanics,
review of water safety skills and investigation of teaching methodology.
Orientation to American Red Cross administrative procedures is included.
Students are expected to be proficient in the following strokes: front crawl,
back crawl, elementary backstroke, breaststroke, and sidestroke.

PHYA 4 Badminton. The course includes an orientation to the history and
rules of the game, terminology, and equipment. Basic skills and techniques
taught include the proper grip, stance, footwork, and backhand
drives, long and short serves, net shots, round-the-head shot, and the smash.
Basic single and double game strategies are presented.

PHYA 4Y Intermediate Badminton. This course includes a continued ori-
etnation to the history and rules of badminton, terminology and equipment.
Reframing of beginning level skills is emphasized before progressing to
more advanced techniques. Expanded single and double strategies are pre-

PHYA 5 Ballet. The technique and vocabulary of classical ballet are pre-
sented. Exercises at the barre are followed by practice and combinations in
the center. PREREQUISITE: PHYA 21 (Introduction to Dance Technique) or
equivalent experience.

PHYA 5Y Intermediate Ballet. The course is for the dancer with a solid
understanding of the basics of ballet and several years' dance training. It
emphasizes more sophisticated steps in longer combinations.

PHYA 5Z Advanced Ballet. The course is designed for the dancer with a substantial
background in ballet. Speed, endurance, multiple turns, beats, and complica-
ted combinations are emphasized.

PHYA 6 Archery. Designed to teach beginning student proper tech-
niques of target shooting with a bow and arrow, this course deals with his-
tory, terminology, safety, and equipment selection. Shooting techniques
include the stance, cocking, drawing, anchoring, aiming, releasing, and
following through. The use of the bow sight and target scoring are pre-

PHYA 7 Bowling. The course presents terminology of the game, various
grips and stances, the delivery approach, release, and follow through. Pick
up spare leaves, releasing straight, hook, and back-up balls, reading the
lanes, and handicapping are also included. Rules and scoring as well as
tournament bowling are learned. An additional fee is required. Students
with an average of 135 or higher are not eligible for this beginner course.

PHYA 7Y Intermediate Bowling. This course focuses on refinement of the
experienced student's delivery mechanics including the approach, release,
and follow-through. Maximum quality practice time is emphasized.
Alternative approaches and releases are presented and several types of
tournaments are conducted. An additional fee is required.

PHYA 8 Horseback Riding. The course introduces the student to tacking,
grooming, and riding the basic gait of walk, trot, and canter. Vaulting is
introduced. An additional fee is required; this course is taught on campus.

PHYA 8Y Intermediate Horseback Riding. The student is introduced to
jumping and emphasis is placed on learning more balance and control in
the three basic gait. Dressage is introduced. An additional fee is required;
this course is taught off campus.

PHYA 8Z Advanced Horseback Riding. The student is offered show jumping
and dressage. Fox hunting is introduced. An additional fee is required;
this course is taught off campus.

PHYA 9 Fencing. This course introduces the student to the history, rules,
and terminology of the sport of fencing. It traces the development of ancient
and modern weapons, presents warm-up, stretching, and conditioning
exercises that are specific to the sport, and covers the grip, basic positions,
and footwork that comprise the basis of the sport. Individual and team
competitions are conducted in the course.

PHYA 9Y Intermediate Fencing. A review of the footwork and marksmanship
covered in the beginning course precedes an introduction to pair exercises
and individual lessons dealing with both technique and tactics. Emphasis in
this course is on individual and paired exercises rather than on large group
lessons. An introduction to officiating is also covered in conjunction with
greater competitive opportunities.

PHYA 10 Downhill Skiing. This course is conducted in Boone, NC, for five
days over the Christmas break. It includes instruction proper equipment
selection, such as clothing, boots, skis, and bindings, the use of lifts and
tows, and the basic fundamentals, such as parallel turns, edging concepts,
and rhythm. An additional fee is required.

PHYA 11 Aerobics. This course provides a cardiovascular fitness program
incorporating physiologically safe dance and exercise movements to music.
It develops strength, flexibility, and improved cardiorespiratory efficiency.

PHYA 11C Aerobics and Weight Training. This course challenges students
to achieve higher levels of cardiovascular fitness, flexibility and strength
through aerobics and weight training in order to develop a lasting interest
in lifetime fitness.

PHYA 11Y Intermediate Aerobics. This course challenges students to
achieve higher levels of cardiovascular, flexiblility, and strength fitness
through dance and exercise movements to music. Students are expected
to be able to participate in a minimum of 20 minutes of aerobic activities.

PHYA 12 Folk and Square Dance. This course combines simple to moderately
difficult folk dances of American and international heritage along with
a selection of square dances. It includes a variety of dance steps, patterns,
positions, and formations.

PHYA 12B Team Sports (Soccer and Team Handball). This course intro-
duces the fundamentals of the team sports of soccer and team handball.
Students will learn how team sports can be a lifetime activity when
approached sensibly and effectively. Topics will include rules and basic
strategies of the games.

PHYA 13 Golf. This course stresses swing motion and the basic fundamen-
tals. Techniques of the full swing and the short game are presented. Rules
and etiquette are covered. Students who shoot 115 or less for 18 holes are
not eligible for this beginner course.

PHYA 13Y Intermediate Golf. The course builds on and refines the basic
fundamentals of the swing motion. Ball flight control is introduced with
more in-depth swing analysis. Students who shoot 85 to 115 for 18 holes are
eligible for this course.
PHYA 13Z Advanced Golf. Comprising this course are the ability to score, the analysis of strategy and shot production, and improvement of self-awareness and coping strategies. A 15 or less handicap is required as a prerequisite.

PHYA 14 Tumbling and Gymnastics. Through proper progression, the student is exposed to compulsory routines on several pieces of gymnastic apparatus, including the balance beam, parallel bars, pommel horse, rings, horizontal bar, and strength, flexibility, and gross motor coordination. Emphasis is placed on safe spotting techniques and safety awareness.

PHYA 14Y Intermediate Tumbling and Gymnastics. The purpose of this course is to provide the student with the opportunity to learn more difficult gymnastics skills and to incorporate them in a fluid routine. Added emphasis is placed on muscular strength and flexibility. Safe spotting techniques, particularly for more advanced skills, are stressed throughout the course.

PHYA 15 Handball. This course deals with the history, terminology, and present day rules of four-wall handball. Basic shots are presented including the forehand drive with both the dominant and non-dominant hands, the kill shot, the passing shot, the overhead shot, the ceiling shot, the lob, and the backwall return. Four basis serves are combined to give the following student competency to play singles, cutthroat, and doubles.

PHYA 16 Jogging. The purpose of this course is to provide the student with the opportunity to develop cardiovascular fitness through a popular activity. Selection of proper clothing and equipment, the physiological effects of a jogging program, care and prevention of common injuries, and the mechanics of jogging are presented.

PHYA 16Y Intermediate Jogging. This course will introduce the student to the cardiovascular and overall fitness benefits of running. Student will learn how running can be a lifetime activity when approached sensibly and effectively. Students are expected to be able to run three miles in under 30 minutes prior to registering for this course.

PHYA 17 Jazz Dance. The student will explore the roots of the jazz style through rhythm, principles of isolation and opposition, shape and energy through center work, stretches, movement across the floor, and simple routines. PREREQUISITE: PHYA 21 (Introduction to Dance Technique). Previous ballet training is highly recommended.

PHYA 17Y Intermediate Jazz Dance. The student will explore the jazz style in greater complexity plus gain an increased understanding of jazz music as it is related to jazz dance. It includes center work, complex movement phrases across floor, adagio, and routines using a large movement vocabulary. At least two years of dance experiences and familiarity with jazz style is recommended.

PHYA 18 Karate. This course offers an introduction to the basics of one of many martial art styles. Emphasis is on traditional forms, basic movements, philosophy, discipline, and proper class conduct. Students will learn horse-riding stance and forward stance; upper, middle, and lower part blocks, single punch, double punch, and hand sword, front kick and side kick, and two traditional forms.

PHYA 18Y Intermediate Karate. The student will review basic stances, hand blocking and striking, and kicking techniques. Emphasis will be on perfecting basic katas (forms) and introduction to more advanced sparring techniques.

PHYA 19 Modern Dance. The student will explore the principles of movement which define modern dance, gaining some understanding of the use of weight, the shape of the body in space, an awareness of timing and energy, and individual creative potential through center work, stretches, floor work and various movement phrases across the floor. PREREQUISITE: PHYA 21 (Introduction to Dance Technique.)

PHYA 19Y Intermediate Modern Dance. The student will work to develop greater technical skill and continue a more advanced exploration of modern dance principles of effor-shape through center work and phrases of greater length and complexity in the center and across the floor. At least two years of modern dance training are recommended.

PHYA 20 Racquetball. The course introduces the beginner to basic skills, including forehand and backhand drives, tops, footwork, and serves such as the drive, Z, and the lob. Safety considerations as well as rules and terminology are covered. Basic strategy is presented involving the return of serve, use of ceiling, rear wall, pass, and kill shots.

PHYA 20Y Intermediate Racquetball. Students will review beginning skills. Aspects of competition will be covered, including match preparation, officiating a match, and tournament play. Specific practice will involve shot selection and placement and back wall play.

PHYA 20Z Advanced Racquetball. Students should have at least one year of racquetball experience, including some tournament experience, and possess the ability to hit all shots. This course emphasizes refinement of stroking techniques for all shots, advanced game strategies, and game play against a variety of opponents.

PHYA 21 Introduction to Dance Technique. This course is an introduction to the positions, exercises, and steps common to ballet, jazz and modern dance. It is designed for the student with no previous dance experience and is a prerequisite for PHYA 5, 17 and 19.

PHYA 22 Self Defense. This course introduces the basics of self-defense techniques and will be taught with special primary emphasis on women's self-defense methods by using the weak points of attackers.

PHYA 23 Lifeguard Training. This course will prepare individuals to effectively assume the duties and responsibilities of lifeguards at swimming pools and at protected (non-surf) open water beaches. Emphasizes saving the lives of others through increased awareness of preventive lifeguarding measures and on practicing extensive rescue techniques. PREREQUISITE: An ability to swim 500 yards continuously, retrieve a 10 lb. object from a depth of seven feet and tread water for two minutes with legs only.

PHYA 24 Soccer. Basic soccer skills are presented including dribbling, shooting, passing, heading, trapping, and tackling. Position play and strategies for basic offense and defense are learned as well as rules and terminology. Conditioning is achieved through drills and game play.

PHYA 24Y Intermediate Soccer. Basic skills are reviewed and refined. Dead ball situations are studied, especially corner kicks and direct and indirect free kicks. Different systems of play are introduced and evaluated. Positional play is stressed in the development of advanced defensive and offensive tactics.

PHYA 26 Squash. Basic shots are learned including forehand and backhand drives, corners, reverse corners, volleys, drop shots, and serves. Rules, terminology and basic strategies are presented. Appreciation of squash as a game for fitness and fun is developed.

PHYA 26Y Intermediate Squash. This course will help students with advanced shot techniques and intermediate squash and provide competitive experiences and information concerning appropriate physiological and psychological preparation for tournament play.

PHYA 27X Survival Swimming. This course is designed to introduce students with no previous swimming experience to water adjustment and beginning level skills such as: bobbing, kicking, floating and simple stroking. Relaxation and breath control skills are combined with the principles of buoyancy to prepare the nonswimmer to successfully complete the University Swimming requirement.

PHYA 27 Beginning Swimming. The course consists of swimming skills for the student with limited water experience. These skills include water adjustment, floating, kicking, front crawl stroke, rhythmic breathing and elementary backstroke. Emphasis is on efficient movement through the water. Foundation skills taught enable the student to enjoy swimming and other aquatic activities as a lifetime sport. Basic water safety and first aid procedures are included.

PHYA 27Y Intermediate Swimming. Techniques for crawl, sidestroke, elementary backstroke, back crawl, and breaststroke are covered. Basic water rescue skills are presented including first aid procedures. Physical fitness is promoted through swimming.
PHYA 27Z Advanced Swimming. The course includes the refinement of stroke techniques for recreational and competitive swimming. Conditioning is stressed through stroke practice and workout routines. Water rescue and first aid skills are included. Related aquatic skills are presented to produce highly competent performers in the water.

PHYA 28 Triathlon Training. The purpose of this course is to introduce the student to the sport of triathlons integrating the discipline of running, cycling and swimming. The course is physically challenging and provides the student with information on transitions, maintenance of equipment, as well as setting up a training program.

PHYA 29 Tennis. Basic skills are learned including forehand and backhand ground strokes, the volley, and the serve. Rules, terminology, and basic game strategy will be taught. Through play, an increased level of fitness and skill will be gained to promote participation in tennis throughout life.

PHYA 29Y Intermediate Tennis. Increased proficiency in four basic skills will be developed. New shots taught include the overhead, drop, the lob, and spin serve. Strategy for singles and doubles play will be stressed. Emphasis is on increased pace and ball placement.

PHYA 29Z Advanced Tennis. Individual skill improvement in all shots with pace and accuracy of shots is stressed. Advanced strategies for singles and doubles play are learned. Analysis of opponent's strengths and weaknesses and physical fitness are stressed through drills and games.

PHYA 30 Cycling. The purpose of this course is to introduce the student to the history and skill of cycling. The course will focus on maintenance of the bicycle, fitness acquired through the use of cycling and the skills of climbing, descending, cornering, and balance.

PHYA 31 Volleyball. Basic skills are taught including the forearm pass, the overhead pass, setting, spiking, blocking, and serving. Rules and terminology are included. Basic offensive and defensive strategy is learned.

PHYA 31Y Intermediate Volleyball. Execution of basic skills are improved through practice. Safe execution of dives and rolls is stressed. Various offensive strategies and defensive alignments are taught. Emphasis is on team play.

PHYA 32 Exercise and Conditioning. Activities are covered which promote cardiovascular endurance, muscular strength and endurance, and flexibility. The course content includes fitness evaluation, stretching, weight training, aerobic exercise, rope jumping, jogging, and circuit training. Individual exercise programs are developed.

PHYA 33 Weight Training. Basic techniques and knowledge of Universal, Nautilus, and free weight systems are taught. Fitness evaluation and individual workout programs are included. Development of muscular strength and endurance is stressed. Physiological principles of fitness and their relationships to weight training are also emphasized.

PHYA 33Y Intermediate Weight Training. This course emphasizes the development of individualized muscular strength and endurance programs following instruction in the physiological principles and techniques of weight training. Students should have beginning weight training skills, techniques and knowledge prior to enrolling in this class.

PHYA 34 Aerobic Circuit Training. This course challenges the student to achieve higher levels of overall fitness in a cardiovascular program which combines stations of muscular strength with endurance while incorporating a wide variety of equipment. Students are expected to be able to participate in a minimum of 20 minutes of aerobic exercise.

PHYA 35 Scuba. This is a basic course which prepares the student for safe and enjoyable participation in recreational sport diving. It includes the skills of skin diving and scuba. Lectures cover physiology of diving, first aid, and decompression. It can lead to certification (for an additional fee) by attending open water training dives conducted at the end of the semester. PREREQUISITE: Strong swimming skills and permission. An additional fee is required. (See fact sheet in Woolen Gym 205.)

PHYA 36 Social Dance. The basic step patterns of popular social dances, such as fox trot, waltz, cha-cha, swing or shag, hustle, tango, and others are taught. Confidence in the ability to lead or follow is developed. Social enjoyment of dance is emphasized.

PHYA 36Y Intermediate Social Dance. The study of the social dances introduced in the beginning course is continued emphasizing more advanced patterns and a higher level of technique and styling. The course also features an introduction to ballroom dance choreography. Enjoyment of dance is stressed.

PHYA 38 Swim Conditioning. This course is designed to promote cardiovascular fitness through swimming. Conditioning and the refinement of stroke techniques will be stressed through stroke practice and workout routines. Topics will include stroke mechanisms of the four competitive strokes, starts, turns, interval, sprint and long distance training, and hypoxic training.

All courses are coeducational.

Students may earn credit by exam for successfully completing a proficiency exam. Proficiency tests are offered in the following activities: archery, badminton, ballet, ballroom dance, bowling, fencing, golf, gymnastics, jazz dance, juggling, karate, racquetball, soccer, swimming, tennis, volleyball, and weight training.

All classes will be elementary unless followed by the letter X (survival), Y (intermediate) or the letter Z (advanced).

Department of Physics and Astronomy

THOMAS B. CLEGG, Chair

Professors

Associate Professors
Gerald N. Cecil, Charles R. Evans, Horst Kesemeier, Nalin R. Parikh.

Assistant Professors

Lecturer
Douglas E. Holmgren.

Professors Emeriti
While the faculty members listed after each course may not currently teach that course, they are knowledgeable about the course. Consult faculty for information about each course.

The department offers a B.S. in physics and a B.A. in physics. The requirements for the degrees are outlined in the following section. A minor in astronomy and a minor in physics also are offered. Details of the minors are listed at the end of this departmental section.

Astronomy

Course Descriptions

31 Descriptive Astronomy (3). No prerequisite. A study of the celestial sphere, time, earth, moon, artificial satellites, eclipses, sun, solar system, stars, the Milky Way, extragalactic systems, and cosmology. Fall and spring. Christiansen, Rose, staff.

31A Descriptive Astronomy (3). No prerequisite. An accelerated version of Astronomy 31 for Honors students. A study of the celestial sphere, time, earth, moon, artificial satellites, eclipses, sun, solar system, stars, the Milky Way, extragalactic systems, and cosmology. Fall. Christiansen.

31L Descriptive Astronomy Laboratory (1). Corequisite, Astronomy 31. Laboratory exercises, demonstration exercises, and elementary calculations to illustrate methods used in astronomy. Some constellation study with occasional evening observations. Two laboratory hours a week. Fall and spring. Christiansen, staff.

91, 92 Research and Special Topics for Juniors and Seniors (2 or 3 each). Permission of instructor. To be taken by honors candidates and other qualified juniors and seniors. Fall and spring. Carney, Christiansen, Rose.

117 Cosmic Evolution (3). Prerequisites, Mathematics 32 and Astronomy 31, or permission of instructor. A course in stellar and planetary astrophysics with emphasis on astronomical conditions for the development and sustenance of life. Fall or spring. Christiansen, staff.


137 Observational Astronomy (4). Prerequisite, Astronomy 31, or permission of instructor. A course designed to familiarize the student with observational techniques in optical and radio astronomy, including application of photography, spectroscopy, photometry, and radio methods. Three lecture and three laboratory hours a week. Fall or spring. Rose, staff.

142 Astrophysics I (Stellar Astrophysics) (3). Prerequisites, PHYS 28, MATH 83 or permission of instructor. An introduction to the study of stellar structure and evolution. Topics covered include observational techniques, stellar structure and energy transport, nuclear energy sources, evolution off the main-sequence, and supernovae. Fall. Carney, Cecil, Christiansen, Rose.

143 Astrophysics II (Interstellar Matter and Galaxies) (3). Prerequisites, PHYS 28, MATH 83 or permission of instructor. An introduction to the study of the structure and contents of galaxies. Topics covered include the interstellar medium, interstellar hydrodynamics, supersonic flow and shock formation, star formation, galactic evolution, the expanding universe and cosmology. Spring. Carney, Cecil, Christiansen, Rose.

Physics

Students may work toward either a B.S. degree in physics or a B.A. degree with physics as the major. Students planning to do graduate work in physics or astronomy will find the B.S. degree advantageous. Requirements for B.S. degree are listed under the first heading below. Candidates for these degrees must complete a total of eighteen hours of work in advanced physics courses with a grade of C or better.

Candidates for a B.A. degree with physics as the major must satisfy the requirements of the College of Arts and Sciences, and must complete the following specific departmental requirements:

Mathematics 31, 32, 33, 83;

Physics 26 and 27 (or Physics 24 and 25 with departmental permission), 28, 28L, 52 (or 103), 58 (or 107);

One additional course selected from Astronomy 61, 101 or (141), 102, 104, 105, 106, 108, 113, 140, 144, 151, 160, 161, 163, 169;

Five additional courses to satisfy one of the following options.

A. Standard Option: Chemistry 11/L. 21/21L; plus one from the additional physics courses listed above; plus two from the additional physics courses listed above. Astronomy 137, 142, and 143;

B. Astronomy Option: Astronomy 31/31L, 117, 137, 142, 143;

C. Geophysical Option: including Chemistry 11/L, 21/21L; plus one from the additional physics courses listed above; plus two of PHYS 122 “Physics of the Earth’s Interior,” GEOL 142 “Geophysics,” PHYS 151 “Fluid Dynamics,” GEOL 151 “Geodynamics.”

The department offers an honors program for students majoring in physics. This program involves independent study and research (or advanced course work), and an oral presentation. Students who wish to enter the honors program should consult with their departmental advisers not later than the preregistration period in the spring semester of their junior year.

Students majoring in physics who are considering Marine Sciences as a graduate specialty should consult the material under “Curriculum in Marine Sciences.”

Requirements for Bachelor of Science in Physics

(For freshman and sophomore years see “General College.”)

Junior Year

Physics 104, 107, 108, 141 and two courses from Mathematics 128 (or Physics 191), 129 (or Physics 192).

Two free electives.

Senior Year

Physics 105, 106, 142L, 143L, 160 and 1633

Two free electives.

Course Descriptions

16 How Things Work (3). Demystifying the working of objects such as CD players, microwave ovens, lasers, computers, roller coasters, rockets, light bulbs, automobiles, clocks, copy machines, x-ray and CAT-scan machines, and nuclear reactors. Fall, spring. Clegg, Karwowski, Champagne, Holmgren.
20 Basic Concepts of Physics (4). No prerequisite. Basic principles of physics with introduction to quantum physics, atoms, nuclei, and relativity. Not to be taken for credit after Physics 24-25, or 26-27. Three lecture and two laboratory hours a week. Fall and spring. Kesemeier, staff.

24 General Physics (4). Corequisite. Mathematics 30 or equivalent. Only one of Physics 24, 26, and 26A may be taken for credit. Three lecture hours a week, and two laboratory hours a week. Fall and spring. Rowan, staff.

24L General Physics Laboratory (1). Prerequisite, permission of department. This section is only for students who have completed the lecture section through transfer credit, BE credit, etc. Two laboratory hours a week. Fall, spring. Staff.

25 General Physics (4) Prerequisite, Physics 24. Only one of Physics 25, 27, and 27A may be taken for credit. Three lecture hours a week and two laboratory hours a week. Spring and fall. Rowan, staff.

25L General Physics Laboratory (1). Prerequisite, permission of department. This section is only for students who have completed the lecture section through transfer credit, BE credit, etc. Two laboratory hours a week. Fall, spring. Staff.

26 Mechanics (4). Prerequisite, Mathematics 31 or permission. Only one of Physics 24, 25, and 26A may be taken for credit. Mechanics of particles and rigid bodies. Newton’s laws; conservation principles. Oscillatory and wave motion. Sound. Four hours lecture and recitation per week and two hours laboratory every second week. Fall and spring. Thompson, staff.

26A Mechanics (4). Honors section of Physics 26. Admission by permission of the honors dean or the department. Only one of Physics 24, 26, and 26A may be taken for credit. Four hours lecture and recitation per week and laboraory every second week. Fall. Van Dam, staff.

27 Electromagnetism and Optics (4). Prerequisite, Physics 26. Only one of Physics 25, 27, and 27A may be taken for credit. Electricity and magnetism; Laws of Coulomb, Ampere, and Faraday. Electromagnetic oscillations and waves. Light; diffraction, and interference. Four hours lecture and recitation per week and two hours laboratory every second week. Fall and spring. Van Dam, staff.

27A Electromagnetism and Optics (4). Honors section of Physics 27. Prerequisite, Physics 26A. Only one of Physics 25, 27, and 27A may be taken for credit. Four hours lecture and recitation per week and laboratory every second week. Spring. Staff.

28 Modern Physics (3). Prerequisite, Physics 27 (or Physics 25 by permission of instructor); Corequisite Physics 28L. Special relativity theory, black body radiation, photons and electrons, wave particle duality. Elements of atomic theory, nuclei and fundamental particles. Three lecture hours a week. Fall and spring. Hubbard, staff.

28L Modern Physics Laboratory (1). Physics 28 as pre- or corequisite. Three laboratory hours a week. Fall and spring. Hubbard, staff.

37 Science and Society (3). No prerequisite. A description of the scientific community and how scientists relate to such societal issues as the space program, the arms race, the energy problem, computer technology, medical technology, and pseudoscience. Spring. Schroer.

52 Basic Mechanics (3). Prerequisites, Physics 24 (or 25) and Mathematics 32, or permission of instructor. A one-semester course in statics, kinematics, simple harmonic motion, central forces, and applications from modern physics. Spring. Hubbard, staff.

58 Intermediate Electromagnetism (3). Prerequisites, Physics 25 (or 27) and Mathematics 33. Electric fields and potentials; dielectrics; steady currents; magnetic flux and magnetic materials; electromagnetic induction; emphasis on Maxwell’s equations and their application to electromagnetic waves in bounded and unbounded media. Three lecture hours a week. Fall. Superfine, staff.

61 Introduction to Numerical Techniques in Physics (4). Prerequisite, Physics 26 (or 25); corequisite, Mathematics 33. Applications of calculus, vector analysis, differential equations, complex numbers, and computer programming are made to realistic physical systems. Three lecture and two computational laboratory hours a week. Fall. Lu, staff.

84 Science, Technology, and Military Affairs (Peace, War, and Defense 84) (3). No prerequisites. The effect of modern scientific-technological developments on military strategy. Topics include nuclear weapons and their effects, arms control; nuclear and chemical and biological weapons, conventional high-tech weapons proliferation, arms control, and disarmament. Fall. Schroer.

91, 92 Research and Special Topics for Juniors and Seniors (2 or 3 each). To be taken by honors candidates and other qualified juniors and seniors. Fall and spring. Christiansen, staff.

93 Senior Seminar (2 or 3). To be taken by seniors with permission of department adviser. Upon demand. Christiansen, staff.

101 Analog Electronics (4). Prerequisites, Physics 27 and Mathematics 32; Mathematics 33 is helpful. DC and AC circuit analysis, PN junctions and diodes, single-transistor circuits, transducers. Analog devices. Extensive circuit building with testing, trouble shooting, and debugging. Fall. Karwowski.


104 Mechanics 14 (3). Prerequisite, Physics 103. Deformable bodies and wave motion. Lagrange’s and Hamilton’s equations, Euler’s equations, small oscillations, normal coordinates. Fall. Washburn, staff.

105 Heat and Thermodynamics (3). Prerequisite, Physics 27 or (25 by permission) and Mathematics 33. Equilibrium statistical mechanics; the thermodynamic laws, internal energy, enthalpy, entropy, thermodynamic potentials, Maxwell’s equations. Fall. Wu, staff.


107, 108 Electromagnetism I and II (3 each). Prerequisites, Physics 27 and Mathematics 83 (or permission). Brief treatment of DC and AC circuit theory. Electrostatics: dielectrics; the magnetic field; magnetic materials. Maxwell’s equations and their application to electromagnetic waves. Fall and spring. Ng, staff.

113 Space and Time in Physics and Philosophy (Philosophy 121) (3). Contingent and necessary properties of space and time. The direction and flow of time. Fatalism. Effects preceding their causes. Spring. Van Dam, staff.


140 Physics of Solid State Electronic Devices (3). Prerequisite, Physics 27. Corequisite or prerequisite, Physics 58 or 107. Properties of crystal lattices, electrons in energy bands, behavior of majority and minority charge carriers, p-n junctions related to the structure and function of semiconductor diodes, transistors, display devices. Fall, spring. Washburn, staff.
141 Electronics (4). Prerequisite, Physics 27 (or 58), Mathematics 83. Basic electronics with emphasis on circuitry, DC and AC circuits, diodes and application, transistors, amplifiers, wave form generators, operational amplifiers, digital electronics, transmission lines. Physics 101 and 141 may not both be taken for credit. Three lecture and three laboratory hours a week. Fall. Kesemeier.

142L, 143L Advanced Laboratory I and II (2 each). Prerequisite, Physics 141 or permission. Selected experiments illustrating modern techniques such as the use of laser technology to study the interaction of electromagnetic fields and matter. Six laboratory hours a week. Spring and fall. McNeil, staff.

144 Chemistry and Physics of Electronic Materials Processing (Chemistry 192) (3). Prerequisites, Chemistry 182 or Physics 27 and permission of the instructor. A survey of materials processing and characterization used in fabricating microelectronic devices. Crystal growth, thin film deposition and etching, and microolithography. Spring. Parikh, staff.

148L Materials Laboratory I (Applied Sciences 144L) (2). Prerequisite, Physics 102 or 141. Pre- or corequisite, Applied Science 141. Structure determination and measurement of the optical, electrical, and magnetic properties of solids. Fall. McNeil, staff.

149L Materials Laboratory II (Applied Sciences 145L) (2). Prerequisite, Physics 148L or Applied Sciences 144L. Continuation of Physics 148L with emphasis on low- and high-temperature behavior, the physical and chemical behavior of lattice imperfections and amorphous materials, and the nature of radiation damage. Spring. McNeil, staff.

151 Fluid Dynamics (Marine Sciences 151, Geology 181) (3). Prerequisite, Physics 103 or permission. The physical properties of fluids, kinematics, governing equations, viscous incompressible flow, vorticity dynamics, boundary layers, irrotational incompressible flow. Fall. Shay.


161 Nuclear Physics (3). Prerequisite, Physics 160 or equivalent. Nuclear structure, nuclear reactions, experimental techniques of producing and studying nuclear particles; models of the nucleus; nuclear forces. Spring. Ludwig, staff.

163 Applications of Quantum Mechanics (3). Prerequisite, Physics 160. Emphasizes atomic physics but includes topics from nuclear, solid state and particle physics, such as energy levels, the periodic system, selection rules, and fundamentals of spectroscopy. Fall. Hubbard, staff.

169 Introductory Solid State Physics (3). Prerequisite, Physics 160 or equivalent. Crystal symmetry, types of crystalline solids; electron and mechanical waves in crystals, electrical and magnetic properties of solids, semiconductors; low temperature phenomena; imperfections in nearly perfect crystals. Fall. Tsui, staff.

181L, 182L Independent Laboratory I and II (3 each). Prerequisites, Physics 103, 108, or permission. Six laboratory hours a week. Fall and spring. McNeil, staff.

191 Mathematical Methods of Theoretical Physics I (3). Prerequisites, Physics 28, or equivalent; Mathematics 83. Vector fields, curvilinear coordinates, functions of complex variables, linear differential equations of second order, Fourier series, integral transforms, delta sequence. Fall. Hubbard, staff.

192 Mathematical Methods of Theoretical Physics II (3). Prerequisites, Physics 191 or permission. Partial differential equations, special functions, Green functions, variational methods, traveling waves and scattering. Spring. Hubbard, staff.

193 Scientific Programming (3). Prerequisites, Mathematics 128 or 129, or Physics 191 or 192; elementary Fortran, C or Pascal programming. Structured programming in Fortran or Pascal; use of secondary storage and program packages; numerical methods for advanced problems, error propagation and computational efficiency; symbolic mathematics by computer. Spring. Thompson.

Minor in Physics and Minor in Astronomy

The minor in physics consists of five courses (Track 1 or Track 2):

Track 1
PHYS 24
PHYS 25
PHYS 28

Two PHYS courses numbered above 50 which have as prerequisites one or more of the three courses listed above.

Track 2
PHYS 26
PHYS 27
PHYS 28 and 28L

Two PHYS courses numbered above 50 which have as prerequisites one or more of the three courses listed above.

The minor in astronomy consists of five courses: ASTR 31 and 31L, PHYS 20, and three ASTR courses numbered above 100.

Note: Physics majors are NOT allowed to elect a minor in astronomy.

Menu of courses suggested for satisfying the physics minor requirements:
PHYS 52
PHYS 58
PHYS 61
PHYS 101
PHYS 105
PHYS 191*
PHYS 140
PHYS 141*
PHYS 103*
PHYS 107*

* Open only to students who have completed PHYS 26, 27, and 28.

Menu of courses suggested for satisfying the astronomy minor requirements:
ASTR 117
ASTR 137
ASTR 142
ASTR 143

1 Astronomy 117 is not to be taken for graduate credit by graduate students in Physics and Astronomy.
2 Most students will find it advantageous to defer some of the General College Perspectives requirements to the junior and/or senior year(s).
3 Various substitutions can be made, with the approval of the student's advisor, for required physics courses in the sophomore, junior, and senior years. Physics 181 and/or 182 may be substituted for other laboratory courses (Physics 141, 142L, 143L), and courses chosen from Physics 102, 161, 169, 191, 192 and Astronomy 117, 142, 143 may be substituted for courses chosen from Physics 61, 106, 143L, and 163.
4 Physics 103-104 and 107-113 are not to be taken for graduate credit by graduate students in physics.
Department of Physiology

STANLEY C. FROEHNER, Chair

Professors

Associate Professors

Assistant Professors
Richard E. Cheney, Lian Li, Sharon L. Milgram, Sela Mager.

Lecturer
Virginia K. Shea.

Research Associate Professors
Elizabeth Bullitt, C. William Davis.

Research Instructors
Marvin Adams, Michael Chua, Marianne L. Meeker, Yolanta B. Pucilowska, Xiaoping Ruan, Nengyu Yang.

Adjunct Professors

Adjunct Associate Professors
Christos Chatziantoniou, Zibin Chen, John C. Daw, Anthony C. Hackney, Nicholas G. Moss, Keiji Nishiyama.

Adjunct Assistant Professors
Grant A. Robinson, Paula R. Rogenes, P. Kay Wagoner.

Adjunct Instructors
Jan McCormick, Mathius J. Sedevec, David M. Smith.

Adjunct Lecturer
Joseph J. Capowski.

The Department of Physiology offers courses to undergraduate students but does not offer a formal major leading to a degree. Courses are available to premedical, predental, nursing, pharmacy, physical therapy, and allied health students as well as to students pursuing science majors. Students interested in research may register for PHY 198, Undergraduate Research in Physiology, a directed readings or laboratory study.

Course Descriptions

92 Introduction to Physiology (5). Prerequisites, Chemistry 11 and 21 or Biochemistry 7 and 8, Biology 45, or equivalents. A course in basic human physiology with an appreciation for its clinical application. Emphasis is on body fluids, various organ systems and their interrelationships. Required of all nursing students and available to other students by permission of instructor. Four lecture and two recitation hours a week. Spring. Shea, staff.

93 Introduction to Physiology (4). Prerequisites, Chemistry 11 and 21 or equivalents. A general course in mammalian physiology with emphasis on the various organ systems and their interrelationships. Required of all pharmacy students and available to other students by permission of instructor. Three lecture and two recitation hours a week. Fall. Meeker, staff.

98 Undergraduate Research in Physiology (1-3). Prerequisites, Biology 11, 11L, Chemistry 11, 11L, an overall 3.0 GPA, and permission of instructor. Directed readings or laboratory study on a selected topic. Final written report required in each term. At least three hours of independent work per week for each unit of credit. Fall, spring, and summer. Willard, staff.

122 Developmental Neurobiology (Cell Biology and Anatomy 122, Neurobiology 122) (3). Prerequisite, permission of the instructor. A survey of nervous system development emphasizing detailed analysis of selected research topics such as neural induction, neural crest development, neuronal differentiation, synapse formation, neurotrophic factors, gial development, and the effects of experience. Spring. Willard, Farel, Lauder.

140A Membrane Physiology (1). Prerequisite: Biochemistry or permission of department. Membrane potentials, ion channels, synaptic transmission and secretion, and membrane transport. Lecture/discussion format; texts supplemented by critical readings of classical and modern research articles. Fall. Sealock, staff.

140B Endocrine Physiology (1). Prerequisites: Biochemistry and molecular or cell biology or permission of instructor. Physiology of endocrinology and signal transduction. Lecture/discussion format; texts supplemented by critical readings of classical and modern research articles. Fall. Milgram, staff.

140C Cardiovascular and Renal Physiology (1). Prerequisites: Biochemistry or permission of department. Corequisites: 140A or other high level study of membrane potentials and ion channels. Muscle, cardiovascular and renal physiology. Lecture/discussion format; texts supplemented by critical readings of classical and modern research articles. Fall. Sealock, staff.

140D Gastrointestinal Physiology (1). Prerequisites: Biochemistry or permission of department. Integrated gastrointestinal physiology; endocrine, cell biological, and neural aspects. Lecture/discussion format; texts supplemented by critical readings of classical and modern research articles. Fall. Sealock, staff.

140E Respiratory Physiology (1). Prerequisites: Biochemistry or permission of department. A directed reading course offered on demand. Introduction to mechanical, gas exchange, gas transport, and neural aspects of respiratory physiology. Respiratory aspects of acid-base control. Fall. Sealock, staff.

189 Molecular Biology Techniques (Biol 189, Gen 189, Micro 189, Phco 189) (4). Prerequisites, some molecular biology, permission of the instructor. These one- and two-week intensive courses are part of the Carolina Workshops series. Topics emphasized vary, but usually include techniques such as isolation of nucleic acids, blotting, cloning in viruses and plasmids, and DNA sequencing. Fall, spring, and summer courses available. Litaker and staff. Fee required. Eight laboratory hours.
Department of Political Science

DONALD D. SEARING, Chair

Professors
Thad Beyle, Pamela Conover, Evelyne Huber,
Michael Lienesch, David Lowry, Gary Marks,
George Rabinowitz, Richard Richardson, Lars Schoultz,
Joel Schwartz, Donald Searing, Jurgen Steiner, John Stephens,
Gordon Whitaker, James White, Deil Wright.

Associate Professors
Jonathan Hartlyn, Stephen Leonard, Stuart Macdonald,
Kevin McGuire, Timothy McKeown, Michael Munger,
Catharine Newbury, Jeffrey Obler, Terry Sullivan.

Assistant Professors
Susan Bickford, Barbara Hicks, Norman Hurley, Eric Mlyn,
Thomas Oatley, Marco Steenbergen, Isaac Unah.

Political Science is concerned with the description and explanation of political institutions and behavior, the rights and responsibilities of citizens, and the relations of people with their governments. The curriculum provides the student with a broad knowledge of both domestic and foreign political institutions, processes and problems. The undergraduate major is designed to make feasible the attainment of several objectives: (1) a broad understanding of political institutions and issues as the central element of a general education; (2) a basic knowledge of governmental techniques for those considering a career in public service; (3) preprofessional training for students planning to enter a law school; and (4) a basic foundation in Political Science for those contemplating specialization at the graduate level.

To graduate with a major in political science, a student must pass at least eight courses offered by the department, with a grade of C or better in six courses plus a C or better in Political Science 41. At least one course must be from the 100-level. A maximum of six hours can be taken from the grouping 96 and 99. The major must also pass an introductory economics (ECON 10) course.

Political Science 41 can be counted as part of the major and General College, while the remaining courses are counted in the upper college.

The courses offered by the department are divided into a number of requirements and electives. Each student must take the introductory course in American government (Political Science 41), in international relations (Political Science 86), one lower-level course in comparative politics (Political Science 51, 52, 53, 54, 55, 56, 57, 59, 60), and one course in political theory (Political Science 61, 62, 63, 64, 65, 67, 68, 161, 162, 163, 165, 166, 168). The remaining courses are left wholly to the discretion of the student and can be taken from any of the department's undergraduate offerings. It is suggested that, whenever possible, students take the introductory courses in any of the subfields (comparative, international, American, theory, etc.) before taking more advanced courses.

The Honors Program

The Honors Program provides Political Science majors the opportunity to pursue an independent research project over a two-semester period. Students begin the program by taking Political Science 91, Honors Seminar in Research Design, in the spring semester of their junior year. During this course they complete the first chapter of the proposed thesis.

If the first chapter is acceptable, students continue their thesis research in the senior year under the direction of a faculty adviser in Political Science 92. Upon successful completion of the program, which includes an oral defense of the thesis, students are awarded a degree "with Honors" or "with Highest Honors in Political Science."

To be admitted to the Honors Program students must have at least a 3.2 overall grade point average and 3.5 in Political Science. They should have completed four courses in the major. Students interested in participating in the Honors Program should contact the director of political science honors during the first semester of their junior year.

Training for Public Service

The undergraduate major in political science provides a sound foundation for professional master's programs in public administration such as that offered in our university and at many other universities. For students planning to enter the public service, regardless of undergraduate major, the following courses are recommended consistent with other college requirements: Political Science 41, Economics 10, Psychology 10, Political Science 77, English 30, and Statistics.

Course Descriptions

41 Introduction to Government in the United States (3). An introductory course designed to explain the basic processes and issues of the American political system. Fall and spring. Beyle, Rabinowitz, Sullivan.

42 State and Local Government in the United States (3). An introductory course on the government, politics, and policies at the state and local levels of the U.S. Federal system. Fall and spring. Beyle, Wright.

43 Urban Politics (3). An examination of the nature and scope of urban problems in the United States, with emphasis on the impact of government and politics. Fall or spring. Staff.

44 Black Politics in America (3). Examines the political, economic, and social position of the Black community and how these variables have constrained the development of Black political power; relates the theory and structure of American political institutions to the efforts made by Blacks in recent times to organize for effective political action. Fall or spring. Staff.

45 An Introduction to the Nature and Function of Law (3). A nontechnical course for students of the arts and sciences with a social science approach to the examination of the nature, sources, and functions of law. Spring. Staff.

46 Southern Politics (3). Analyzes major trends in the politics of the modern South. Topics include the civil rights movement, the growth of a large urbanized middle class, and the rise of two-party, competitive politics. Fall. Staff.

47H Ethics, Morality, Individual Liberty, and the Law (3). This course introduces students to moral and ethical issues that arise when individual rights conflict with the law and the central role race plays in American society's response. LeFebvre.
49 Defense Policy and National Security (AERO 149, PWAD 149) (3). National defense policy, including strategy, weapons systems, and the bureaucracies/organizations that deal with them. Lectures and discussion sections. Fall. Naval and Air Force ROTC officers.

51 Contemporary German Studies: An Interdisciplinary Seminar (GERM 90, HIST 93) (3). See German 90 for description.

52 Introduction to Politics in Western Europe (3). A treatment of the political institutions and processes of Western European democracies, with special attention to France, Germany, England, and Italy. Fall and spring. Marks, Steiner, White.

53 Politics in England (3). An introduction to contemporary English politics emphasizing the political battle between Socialist and Conservative ideologies. Fall. Seuring.

54 Government and Politics of East Asia (ASIA 54) (3). The indigenous political ideas and institutions of East Asia and Western influence on Asian government and politics with emphasis upon the political evolution and contemporary governments of Japan, China, and Vietnam. Fall. White.

55 Politics of the Soviet Union and its Successor States (3). Factors and forces that explain the rise and demise of the Soviet political system and consideration of emerging new political configurations in the area. Schwartz, staff.

56 Contemporary Latin American Politics (3). An introduction to contemporary political conditions in Latin America, including consideration of leading theoretical explanations. Country emphasis varies with instructor. Fall and spring. Scholzitz.

57 Politics of East-Central Europe (3). Examines contemporary politics in East-Central Europe by looking at the communist period, the 1989 revolutions, and the political, economic, and social transformations underway in the area. Fall, spring. Hicks.

59 Contemporary Africa (3). Examines the development and operation of the political systems of contemporary Africa, emphasizing the period since independence and giving primary attention to sub-Saharan Africa. Fall. Newbury.

60 Political Change and Modernization (3). An overview of politics and government in the Third World, emphasizing characteristics, problems, and solutions (successful and otherwise) common to nations making the attempt to modernize. Fall or spring. Staff.

61 Major Issues in Political Theory (3). An examination of major issues in political thought, including: equality; obedience; violence and nonviolence; justice; forms of social, economic and political life; liberty; and human nature and politics. Spring. Leonard.

62 Introduction to Political Thought: American Political Theory (3). A survey course in American political ideas from the seventeenth century to the present, with emphasis on the role of politics, society, and economy in American thought. Fall. Lienesch.

63 Introduction to Political Thought – Ancient and Medieval (3). Survey designed to introduce students to major political thinkers and ideas of the ancient world and of the medieval period. Fall. Lienesch, staff.

64 Introduction to Political Thought – Modern (3). Survey course designed to introduce students to major political thinkers and schools of thought dating roughly from the 16th century to the present. Spring. Leonard, Lienesch.

65 African American Political Thought (3). A consideration of the political thought of African Americans, particularly within the context of the broader spectrum of American political thought, and both as reaction and contribution to that thought. Fall, spring. Staff.

66 Political Psychology: An Introduction (3). Findings of the behavioral sciences are examined on: human nature, community, political socialization, alienation, mass movements, belief systems and personality in politics. Spring. Seuring, Steenbergen.

67 Feminism and Political Theory (WMST 67) (3). Introduction to feminist theory and its implications for the study and practice of political theory. Topics: Women in feminist critiques of the western political tradition, schools of feminist political theory. Fall, spring. Summer. Bickford, Leonard.

68 The Ethics of Peace, War, and Defense (PHIL 42) (3). Authority of the state and the ethics of its acts; pacifism and national defense; the ethics of revolution; the moral problems of war in the nuclear age; the moral conditions of peace. Fall or spring. B. Boxill, J. Boxill.

70 Public Opinion and Political Participation (3). A study of forces affecting public opinion and its expression in various political activities. Emphasis on gathering and analyzing opinion data. Course may be offered in the computer classroom. Fall, spring. Macdonald.

72 Women and Politics (WMST 72) (3). A comparison of men and women as political actors at the mass and elite level in America. Topics considered include the "gender gap," the women's movement, abortion, and the ERA. Spring. Conover, staff.

73 Politics of Sexuality (3). Examines the role of lesbians, gays, and bisexuals as political actors in the United States, both as individuals and collectively as a social movement. Fall. Conover.

74 Political Feasibility in Policy Analysis (3). Assessment of feasibility of chosen policies, including possibility of enactment and implementation; determining clearance points, predicting behavior of decision makers, building support, assessing rhetoric. Spring. Whitaker, staff.

75 Political Parties and Elections (3). An analysis of the dynamics of party alignment, realignment, and of nomination and election to public office in American national government. Fall and spring. Conover.

77 Introduction to Public Administration (3). Problems of the public service; internal dynamics of public organizations; acquisition and allocation of public funds; the roles of bureaucracy in relation to public policy, clients, the citizenry, and society. Fall and spring. Lowery, Whitaker.

78M Quantitative Research in Political Science (3). An introduction to 1) conceptual foundations of scientific study of politics; 2) research design; 3) descriptive statistics; and 4) inferential statistics. To accomplish these goals, the course employs class lectures, readings, and problem set assignments. Fall or spring. Lowery, staff.

80 The President, Congress, and Public Policy (3). An analysis of the roles and influence of the President, the Congress, and other participants in the making of national policy. Fall and spring. Sullivan.

81 Problems in World Order (3). An examination of selected topics in international relations, such as security and defense, international integration, and North-South relations. Staff.

82 Evolution of the International System (PWAD 82) (3). An examination of changes in the nature of the international system from about 1870 to the present, emphasizing changing patterns of alliance politics and crisis behavior. Fall and spring. Staff.

85 Asia and World Affairs (ASIA 85) (3). A survey of relations between the United States and major Asian powers: China, the USSR, Japan. Spring. Staff.

86 International Relations and World Politics (3). The analysis of politics among nations. Fall and spring. McKeown, Obler, Otley.

87 Latin America and the United States in World Politics (PWAD 87) (3). A survey of the events, institutions, and issues that have dominated relations between Latin America and the United States. Scholzitz, Hartlyn.

88 International Organizations and Global Issues (3). Examines international organizations and their relationships with and impact upon international politics, international law, and selected global issues. Fall and spring. Staff.
99 Great Decisions (2). Major issues of contemporary international relations, in conjunction with the Great Decisions lecture series. May be repeated for credit once unless credit has already been received for International Studies 93. May not be taken in the same semester as International Studies 93. Spring. Staff.

91, 92 Honors Course (6). Permission of instructor required. Required of all students in the honors program in Political Science. S. Macdonald, Hartlyn.

94A Psychoanalysis and the Social Sciences (3). An interdisciplinary examination of the evolution of psychoanalytic theory and methods and their application to such questions as leadership, socialization, and group behavior. Spring. Staff.

94B Theory and Practice of Representative Government (3). Theories of representative government with special emphasis upon those derived from modern social choice theory. Fall or spring. Staff.

94C Politics and Literature (3). Prerequisite, one political science course other than Political Science 41 or any literature course. Models of politics available in literature, literature as political activity, sociopolitical aspects of literary criticism. Draws from English and other literature in translation. Fall and spring. Staff.

94E Religion and Politics (3). Considers the theoretical and philosophical content of the relationship between religion and politics. Special attention is given to the American experience, using historical and contemporary sources. Spring. Lienesch.

94F The Political Community (3). This course will address a series of questions about relationships between citizens and their political communities. Topics include human nature, obligation, liberty, participation leadership, and political utopias. Fall. Searing, Conover.

95 Undergraduate Seminar (3). A detailed examination of selected topics in the field of Political Science. Staff.

96 Practicum in State Government (3). Designed to give students experience in the legislative or executive branches of state government. The course will provide the structure for an in-depth study of several contemporary issues facing state government. Fall, spring. Beyle.

99 Independent Study in Political Science (Var. 1). Permission of director of undergraduate studies. Readings and research under the supervision of a member of the Department. Open to Political Science majors. Fall and spring. Staff.

102 Research in Urban Politics (3). Prerequisites, POLI 41 and either POLI 42 or POLI 43. Examines contemporary research programs on urban politics conducted by political scientists. These topics will be examined both in terms of substantive findings and research methodology. Fall. spring. Loery, Whitaker.

114 Comparative European Societies (SOCI 118) (3). Examination of commonalities and differences of European societies and of the tensions and difficulties attending the European integration process. Fall. Nielsen, Marks.

115 Politics of the European Community (3). Prerequisite, POLI 52 or permission of instructor. Examines the politics and political economy of institutional change and policy making in the European Community. Fall, spring. Marks, Oatley.

116 Politics of Mexico, Central America, and the Caribbean (3). Prerequisite, POLI 56 or permission of instructor. The analysis of politics in Mexico, Central America, and the Caribbean. Fall or spring. Hartlyn, Huber.


118 Political Economy II: The International System (3). Problems of the international economy in domestic politics. Advanced topics in the economic relations among capitalist nations; political power of multinational corporations. Spring. Staff.

119 Central Africa: The Politics of Development (AFRI 123) (3). Study of the postcolonial political economics of central African states, with emphasis on the state's role in development, the changing character of state/society relationships (including recent pressures for democratization); and the local impact of regional and global external linkages. Newbury.

120 Politics of South America (3). Prerequisite, POLI 56 or permission of instructor. Analysis of politics in South America. Fall or spring. Hartlyn, Huber.

121 Collapse of Communist Rule in the USSR and Eastern Europe (3). Looks at factors on the domestic, bloc, and international levels to evaluating competing explanations of the collapse of communist rule in the Soviet Union and Eastern Europe. Fall. Hicks.

122 Politics and Society in the U.S. and the Soviet Union (3). Prerequisite, POLI 55 or equivalent, ECON 166, or SOCI 152. An examination of selected aspects of politics and society in the USA and USSR, focusing upon differences and similarities and their underlying causes. Fall. Schwartz.

123 Government and Politics in Japan (ASIA 123) (3). Examines the Japanese political process in the period since World War II with emphasis on popular culture and behavior, and on governmental policy making in both domestic and foreign affairs. Previous course work on East Asia recommended but not required. Spring. White.


125 Contemporary China - Government and Politics (3). Examines the development of the political system of China with particular emphasis on its historical, social, and cultural dimensions. Fall. Staff.

126 Politics and Society in Africa (3). Prerequisite, POLI 59 or 60, or AFRI 40. Comparative analysis of state-society relations in selected post-colonial African countries. Spring. Newbury.

127 Democracy and Development in Latin America (3). Prerequisite, POLI 56 or permission of instructor. The analysis of central issues of democracy and development in Latin America. Fall or spring. Hartlyn, Huber.

127S Democracy and Development in Latin America (Spanish) (3). Prerequisites, POLI 56 and SPAN 14 or an equivalent intermediate-level language knowledge; or by permission of instructor. The analysis of central issues of democracy and development in Latin America. Spring. Hartlyn.

128 European Politics (3). Prerequisite, POLI 52. Deals with the major and some of the smaller European countries. Discussion of current events; theoretical work; party in small groups. Fall. Seiner.

129 Germany in European Politics (3). Prerequisites, POLI 52 or permission of instructor. An examination of the role of post-war Germany in Europe; the German question and the special relationship between the two German states; comparison of the Federal Republic and the German Democratic Republic. Fall, spring. Staff.

130 Southern Africa in Conflict (3). Prerequisite, POLI 56 or 59 or permission of instructor. The problems of race, class, and ideology are explored in the countries south of the Zambezi River along with the political and economic ties that bind these countries. Spring. Staff.


133 Politics of Macroeconomic Policy (3). Prerequisite, ECON 10. The effects of political considerations on macroeconomic policymaking, and the effects of economic variables on voting and popular support for incumbents. Fall or spring. Keesch, Lowery.

134 North Carolina Politics and Public Policy (3). An intensive study of politics, government, and public policy in the state of North Carolina. Emphasis is placed on student research projects, with a major paper the main requirement. Fall. Beyle.
135 State Politics and Public Policy (3). The comparison of development and implementation of public policy in the states. Special emphasis is placed on the impact of the political process and intergovernmental relations. Spring. Beyle.

136 South in National Politics (3). This course analyzes the important roles played by the South in national politics. Topics include the South in presidential elections and the roles played by southerners in the U.S. House and U.S. Senate. Fall. Staff.

138 Power, Morality, and Foreign Policy (PWAD 138) (3). Prerequisite, Political Science 56 or permission of instructor. To what extent can, and should, moral concerns be integrated into national foreign policies? An examination of theoretical alternatives as well as selected substantive issues (e.g., human rights, just war, food policy, development assistance). Fall. Staff.

139 Alternative Approaches to Peace and Security (PWAD 139) (3). Prerequisites, POLI 86, HIST 18 or permission of instructor. Introduces students to alternative conceptions of security, including mutual security, cooperative security, and collective security. Course presumes students will have background in history, security, or international relations. Spring. Mlyn.

140 International Political Economy (3). Theories of international political economy; major trends in international economic relations; selected contemporary policy issues. Prerequisites, Political Science 86 and Economics 10. Fall. McKeown, Outley.

141 Theories of War and Peace (PWAD 141) (3). Prerequisite, Political Science 86 or permission of instructor. Theories of international relations, with emphasis on the role of force, causes of conflict, and conditions of cooperation. Fall or spring. Staff.

142 Quantitative International Relations (3). Prerequisite, POLI 86 or permission of instructor. The use of quantitative theory, methods, and data in analyzing international relations and forecasting conflict and cooperation. Spring. Staff.

144 American Foreign Policy: Formulation and Conduct (3). Prerequisite, Political Science 86 or permission of instructor. The role of Congress, the press, public opinion, the President, the Secretary and the Department of State, the military, and the intelligence community in making American foreign policy. Emphasis is placed on the impact of the bureaucratic process on the content of foreign policy. Fall and spring. Staff.

145 Contemporary International Relations of the United States (3). Prerequisite, POLI 86 or permission of instructor. A study of selected United States foreign policy problems since World War II; analysis of the process of policy formulation, and the impact of the external environment and domestic policies on the White House and Department of State. Spring. Staff.

146 International Communications and Comparative Journalism (IOMC 146) (3). Prerequisite, six semester hours of upper-division courses in international relations or recent European history. Fall. Staff.

147 Contemporary Inter-American Relations (PWAD 147) (3). Prerequisite, POLI 86 and/or POLI 87/PWAD 87. A comprehensive analysis of hemispheric international relations and foreign policies of individual Latin American nations. Spring. Scholtz.

148 The United States and Mexico (3). A comprehensive analysis of United States relations with Mexico, focusing upon the origin and evolution of contemporary issues such as legal and illegal immigration, the North American Free Trade Agreement, border ecology, and drug trafficking. Fall, spring. Scholtz.

149 Defense Policy and National Security (AERO 149, PWAD 149) (3). Prerequisite, Political Science 86 or permission of instructor. A study of national defense policy as affected by the constitutional and political setting, as well as its relation to foreign policy. Some attention to strategic doctrine. Staff.

151 The Adversary System (3). Focuses upon the political, legal, and administrative problems encountered in the actual operation of the American System of Criminal Justice as affected by the adversarial nature of its processes. Fall and spring. Lefebvre.

152 Law Enforcement in a Democratic Society (3). Deals with the development and current functioning of law enforcement agencies in the United States, legal and practical issues involved in the exercise of police discretion, judicial supervision of law enforcement activities, police-community relations, the impact of technological change and research on law enforcement, contemporary practices, and future possibilities respecting functional improvements on law enforcement. Fall. Staff.

153 Constitutional Policies and the Judicial Process (PWAD 154) (3). Analysis of the structure and functions of judicial systems emphasizing the organization, administration, and politics of judicial bureaucracies and roles of judges, juries, counsel, litigants, and interested groups in adjudication processes. Fall. Staff.

155 The Constitution of the United States (3). A study of the fundamental principles of constitutional interpretation and practice in the United States by means of lectures, textbooks, and cases. Emphasis will be on the political context surrounding the impact following Supreme Court decisions. Fall and spring. McGuire.

156 Junior/Senior Seminar in Law and Justice (3). Advanced topics of varying focus, taught in seminar format for students who have completed appropriate background course work. Permission of instructor is required. Spring. McGuire.

157 Civil Liberties under the Constitution (3). An analysis of the complex political problems created by the expansion of protection for individual liberties in the United States. Emphasis will be on contemporary problems with some supplemental historical background. Spring. Staff.

158 The Problems of Change in Correctional Administration (3). An analysis of the political, legal, and administrative problems involved in effecting changes in correctional administration. Fall and spring. Staff.

159 Criminal Law (3). Analysis of problems in defining, invoking, and administering criminal law as a governmental process. Fall and spring. Lefebvre.

161 Social and Political Philosophy (3). An examination of the logic of social and political thought with an analysis of such concepts as society, state, power, authority, freedom, social and political obligation, law, rights. Spring. Obler.

162 American Political Thought (3). A historical and analytic examination of the ideas underlying the political culture and institutions of the United States. Spring. Lienesch.

163 Marxism and Socialism (3). A consideration of the political thought of major Marxist and socialist schools, including Marxism, Leninism, contemporary Democratic and Revolutionary socialism—with reference to Utopian socialism, and recent controversies on the left. Fall. Staff.

164 Advanced Feminist Political Theory (WMST 164) (3). Examines in greater depth and complexity current issues in feminist political theory. Topics: theories of subjectivity and solidarity; feminist poststructuralist and postmarxist thinking; gender in the public sphere. Fall and spring. Bickford.

165 Problems of Modern Democratic Theory (3). Major problem areas in democratic theory including definitions, presuppositions, and justifications of democracy, liberty, equality, minority rights, public interest, participation, dissent and civil disobedience. Fall. Bickford, Lienesch.

166 Recent Contemporary Political Thought (3). Survey of the historical foundations, central tenets, and political consequences of prominent twentieth century political theories. Topics include: contemporary liberalism and Marxism, fascism, theories of development populist, feminism. Fall or spring. Leonard.
167 Advanced Political Psychology (3). Prerequisites, POLI 66 or 94A. Examines in greater depth issues in the field of political psychology, including conflict and conflict resolution, socialization, attitude formation, mass movements, leader-follower relationships, and psychobiography. Spring. Staff.

168 Recent Developments in Political Philosophy (3). A study of selected recent works of Continental or Anglo-American political theory by authors such as Rawls, Nozick, Walzer, Habermas, and Gadamer. Fall or spring. Leonard.


171 Race, Poverty, and Politics (H USA 171) (3). Definitions of poverty and their policy implications; the composition and causation of poverty; an examination of public policies directed at the alleviation, reduction, and elimination of poverty. Fall. Schwartz.

172 Executive Politics (3). This course explores how presidents select policy options, how they decide timing, what shapes their congressional support, and how they build successful coalitions. Spring. Sullivan.

173 Government and the Environment (3). Examines political implications of environmental problems; environmental policymaking and implementation processes in the U.S., and management problems in selected policy areas such as population, energy, pollution, the ocean, land, hazardous waste, wilderness areas. Fall. Staff.

174 Mass Media and American Politics (3). Prerequisites, junior-senior standing and POLI 41. Examination of the role, behavior, and influence of the mass media in American politics. Staff.

175 Quantitative Analysis for Public Policy (Public Policy Analysis 175) (3). Prerequisite, Statistics 11; Economics 70 or equivalent. Application of statistical techniques, including regression analysis, in public policy program evaluation; research design and data collection and management. Spring. Staff.

180 Formal Models of Political System (3). An introduction to the use of mathematical models for analyzing political behavior. Fall and spring. McKeown.

191 Introduction to Public Finance (ECON 140) (3). Principles and practices of the budgetary activities of American governments—federal, state, and local. Students may not receive credit for both ECON 140 and 141. Akin, Wertz, Wilde.

Department of Psychology

BERNADETTE GRAY-LITTLE, Chair

Professors

Associate Professors

Assistant Professors
Ute J. Bayer, Regina M. Carelli, Andrea M. Husson, Stephanie J. Rowley, Jack Vevea, Yiu-Fai Yung.

Clinical Associate Professors
Ann Louise Barrick, Paul M. Brinich, Stephen G. Flanagan, Arlaine Margolis, Paul N. Mermin.

Clinical Assistant Professors
Laura Clark, Madeleine Crockett, Anthony D. Daiguto, D. Michael Glenn, Mareah Steketee.

Adjunct Associate Professor
Richard A. Lucas.

Adjunct Assistant Professor
Robert W. Lawson.

In the undergraduate study of psychology, the emphasis is on a broad acquaintance with the behavioral sciences, not specialization. The subject matter is preparatory to a career in psychology either in basic research and teaching, or in any number of professional applications to various human problems. A psychology major may prove valuable to those planning other professional careers such as medicine, law, education, or business, as well as to those who seek a broad cultural background in the behavioral sciences.

The courses in the department available to undergraduate students are listed on the following pages. No courses numbered 200 or above may be taken by undergraduate students except under special circumstances. As indicated, some courses in this listing will only be offered in alternate years; consult the current Directory of Classes for each semester's offerings. Psychology 10 is prerequisite to all other courses offered in the Department of Psychology. Students and their advisers should take careful note of the specified prerequisites for advanced offerings in this listing. The specified courses (or their equivalents from other...
institutions) provide a necessary background for entry into these advanced courses.

Students seeking the Bachelor of Arts or Bachelor of Science degree in psychology must complete the following departmental requirements in addition to those required by the College of Arts and Sciences.

**Bachelor of Arts Degree Requirements**

**Psychology Courses:**

*(minimum of nine courses)*

- Psychology 10
- One of Psychology 20, 21, 22, or 23
- Two of Psychology 24, 28, 33, or 80
- Psychology 30 or 30C
- Psychology 50
- Two Psychology courses numbered 100 or above (except Psychology 104; may include Psychology 152 or 153 but not both)
- One additional Psychology course

**Out of Department Courses:**

- Biology 11 and 11L
- One additional Natural Sciences Perspective with or without lab

**Bachelor of Science Degree Requirements**

Students with a particular interest in mathematics and science may elect to work for the Bachelor of Science degree in Psychology. The following requirements are those specific to the B.S. in Psychology.

**Psychology Courses:**

*(minimum of ten courses)*

- Psychology 10
- Two of Psychology 20, 21, 22 or 23
- Two of Psychology 24, 28, 33 or 80
- Psychology 30C (with department approval, Psychology 30 plus an advanced course in psychological measurement or research design may substitute for Psychology 30C)
- Psychology 50
- Three additional Psychology courses numbered 100 or above (except Psychology 104)

**Out of Department Courses:**

- Anthropology 117
- Biology 11 and 11L
- Computer Science 14
- Math 31 and 32
- Modern Language through level 4

At least four additional Natural Sciences courses (one of which must be a physical science and at least one of which must have a lab)

**Other Degree Information**

A student may submit a maximum of forty hours of credit in psychology courses (not including Psychology 10) towards the completion of the B.A. degree.

If possible, Psychology 30 or 30C should be taken prior to the junior year.

All majors must complete at least six psychology courses above Psychology 10 with a grade of C (not C-) or higher. Students planning to enter graduate programs in psychology are urged to include Psychology 130 in their program and as many courses numbered 100 and above as possible. Details of the student’s program may be worked out in consultation with their college and departmental advisers.

**Psychology Honors Program**

Any major in the program with an overall grade point average of 3.2 or higher is eligible for enrollment in the departmental honors program. Application to the director of the honors program should be made before registering for the second semester of the junior year. Each candidate for honors participates in a three-semester sequence (Psychology 98, 99A, and 99B) that provides an opportunity to carry out independent work in an area of the student’s choice under the guidance of a departmental faculty member. The director of the honors program will help the student work out the choice of appropriate topic and research supervisor.

**Course Descriptions**

10 General Psychology (3). No prerequisite. A survey of major principles of psychology and an introduction to scientific modes of thought about behavior. Students participate in ongoing psychological research in the department. Fall and spring. Staff.

*Note: Psychology 10 is prerequisite to all Psychology courses listed below.*

20 Cognitive Psychology (3). Prerequisite, Psychology 10. Topics in attention, memory, visual, auditory, and other forms of information processing, decision making, and thinking. Fall and spring. Staff.

21 Sensation and Perception (3). Prerequisite, Psychology 10. Topics in vision, audition, and the lower senses. Receptor mechanisms, psychophysical methods, and selected perceptual phenomena will be discussed. Fall and spring. Staff.

22 Learning (3). Prerequisite, Psychology 10. Topics in conditioning, verbal learning, memory, and problem solving. Fall and spring. Staff.

23 Biopsychology (3). Prerequisite, Psychology 10. Study of the biological basis of behavior. Emphasis will be placed on human findings and applications. Fall and spring. Staff.

24 Child Development (3). Prerequisite, Psychology 10. Study of the development of social and intellectual behavior in normal children, and the processes which underlie this development. Emphasis is typically on theory and research. Fall and spring. Staff.

28 Personality (3). Prerequisite, Psychology 10. Basic principles of personality structure, dynamics, development, assessment, and theory are discussed. Consideration is given to both environmental and biological determinants of personality. Fall and spring. Staff.
30 Statistical Principles of Psychological Research (3). Prerequisite, Psychology 10. Consideration of the methodological principles underlying psychological research, descriptive and inferential techniques, and the manner by which they may be employed to design psychological experiments and analyze behavioral data. Three lecture and one laboratory hours a week. Fall and spring. Staff.

30C Statistical Principles of Psychological Research (3). Prerequisites, Psychology 10, Math 31. Consideration of the methodological principles underlying psychological research, descriptive and inferential techniques. This section is for students in the B. S. Psychology program. Fall and spring. Staff.

33 Social Psychology (3). Prerequisite, Psychology 10. Introductory survey of experimental social psychology covering attitudes, interpersonal processes, and small groups. Fall and spring. Staff.

50 Laboratory Research in Psychology (4). Prerequisite, Psychology 30. Experiments in biological, behavioral, cognitive, developmental, personality, and social psychology will be discussed, prepared, performed, and reported. One lecture and four laboratory hours per week. Fall and spring. Eckerman.

70 Drugs and Human Behavior (3). Prerequisite, Psychology 10. This course will examine the use of drugs to alter behavior. Social implications of drug use and methods for preventing and treating drug abuse also will be considered. Spring. Dykstra.

80 Behavior Disorders (3). Prerequisite, Psychology 10. Major forms of behavior disorders in children and adults, with an emphasis on description, causation, and treatment. Fall and spring. Staff.

94A Evolution of Mind (3). Prerequisite, Psychology 10, Anthropolgy 41, or Sociology 11. Human biological evolution is reviewed. Man's basic nature—naked ape, killer ape, selfish ape, etc.—is explored. Mind and consciousness are considered in the light of the evolution of ideas and attitudes. Fall or spring. Johnson. Capstone course in Psychology.

98 Independent Research (1-3). Prerequisites, Psychology 10, two additional courses, and permission of instructor and the department chair. Supervised research resulting in a written report. Restricted to two semesters of credit. Fall and spring. Staff.

99 Honors in Psychology (3). Prerequisites, application to the director of honors and enrollment in the honors programs. Reading and research problems. To be taken twice (fall and spring semester), in the senior year, by each honors student and may be counted toward the major in the student's option. 99A, Fall; 99B, Spring. Shinkman.

Advanced Undergraduates and Graduate Students

NOTE: Psychology 10 or the equivalent is prerequisite to all courses numbered above 100.

100 Thinking and Cognition (3). Prerequisite, Psychology 10. Considers problems in intelligence, concept formation, problem solving, and thinking. Emphasis will be on an examination of the experimental literature with attention to recent developments in information processing models. As announced. Johnson, P. Gordon.

101 Conditioning and Learning (Neurobiology 101C) (3). Prerequisite, Psychology 22. A comprehensive survey of the methods, findings, and theories of classical and operant conditioning. Skills necessary to evaluate, integrate, and summarize significant original literature will be developed. Fall. Eckerman.

102 Biological Foundations of Behavior (Neurobiology 102B) (3). Prerequisite, Psychology 22 or Biology 11. Ethological, genetic, and physiological variables will be studied in relation to their behavioral effects. Fall. Gariepy, Spring, Lysle.

103 Introduction to Mathematical Psychology (3). Prerequisites, Psychology 30, Math 32, or permission of instructor. The use of mathematical models in psychology, with topics selected from measurement, scaling psychophysics, learning, decision, and choice theory. As announced. Wallsten.

104 Current Topics in Psychology (3). Prerequisites, Psychology 10 and permission of instructor. Various special areas of psychological study as needed. Course may be taken more than once. Fall and spring. Staff.

NOTE: Psychology 104 will not fulfill a 100-level course requirement for a B.A. or B.S. degree in Psychology.

106 Physiological Psychology (Neurobiology 106D) (3). Prerequisite, Psychology 23 or permission of instructor. Elements of neurophysiology, neuroanatomy, and neurochemistry as they apply to the understanding of behavior and conscious experience. Fall and spring. Staff.

109 Applied Behavioral Analysis (3). Prerequisites, Psychology 22 and 80 or permission of instructor. A survey of applications of learning theory in solving clinical, educational, and societal problems. Practicum experience included. Spring. Staff.

112 Historical Trends in Psychology (3). Prerequisite, Psychology 10. Limited to senior majors or to graduate students in psychology; others by permission of instructor. Overview of the origins of psychological concepts, movements, and fields of study. As announced. Fillenbaum.

120 Sensory Processes (3). Prerequisites, Psychology 20, 21 or 23. Each year the course will deal with a specific sensory topic, such as "color vision" or "the chemical senses." Fall. Hollins.

121 Advanced Perceptual Processes (3). Prerequisites, Psychology 20, 21, or 23. The perception of objects and events; also, the role of attention and imagery in perception. As announced. Hollins.

122 Human Memory (3). Prerequisite, Psychology 20 or 22. Theoretical and applied issues in human memory. Fall and spring. Hinshman, Bayen.

124 Psychological Applications of Drugs (3). Prerequisites, Psychology 22 and 80. This course will investigate the pharmacological effects and the clinical efficacy of drugs used to treat behavior disorders. Fall. Picker.

125 Psychology of Language (3). Prerequisite, Psychology 20 or Linguistics 30 or Linguistics 100. After an examination of the possible relations between psychology and linguistics, this course will consider problems in the acquisition of language and particular recent work in experimental psycholinguistics. Fall and spring. Fillenbaum, Gordon.


129 Development of Social Behavior and Personality (3). Prerequisites, Psychology 24, 28, and 30. Developmental processes during early childhood as these relate to social behavior and personality. Fall and spring. Cairns, Gariepy.


135 Behavioral Decision Theory (3). Prerequisite, Psychology 10 or permission of instructor. Simple mathematical and psychological models of judgment and choice, and related experiments, are treated, as are applications to real-world problems in medical, environmental, policy, business, and related domains. Spring. Wallsten.

140 Advanced Personality (3). Prerequisite, Psychology 28 or graduate standing. An in-depth analysis of major theoretical issues in personality study. Fall and spring. Gray-Little, Lowman.

141 Psychology of Adulthood and Aging (3). Prerequisite, Psychology 24. A developmental approach to the study of adulthood, from young adulthood through death. Topics include adult issues in personality, family dynamics, work, leisure and retirement, biological and intellectual aspects of aging, dying, and bereavement. As announced. Barrick or staff.
142 Psychology of Black Americans (3). Prerequisite, Psychology 28. This course will focus upon the personal characteristics of Black Americans as these have been studied by psychologists and other behavioral scientists. Various methodological approaches will be considered. As announced. Gray-Little.

144 Psychological Disorders of Childhood and Adolescence (3). Prerequisites, Psychology 24 and 80 or graduate standing. A survey of theories bearing on atypical development and disordered behavior, and an examination of major child and adolescent behavior problems and clinical syndromes. Fall and spring. Kupersmidt, Margolis, Wiss.

145 Health Psychology (3). Prerequisite, Psychology 80 or graduate standing. An in-depth coverage of the theoretical issues and clinical manifestations of psychological responses characteristic of individuals with chronic physical disorders. As announced. Staff.

146 Behavior and the Brain: Introduction to Neuropsychology (3). Prerequisites, Psychology 20 and 23 or permission of instructor. Introduction to brain-behavior relationships through the study of the effects of brain damage. Focus on cognitive and emotional processes in humans as they are affected by disease and trauma to the brain. Fall. Hartman.

147 Introduction to Clinical Psychology (3). Prerequisite, Psychology 30 and 80. Overview of clinical psychology—history, scientific basis, and major activities and concerns including assessment, psychotherapy, and other psychological interventions, community psychology, ethics, and professional practice. Spring. Chambless.


150 Stress and Coping in Children and Adolescents (3). Prerequisite, Psychology 24. Examines issues related to the role of risk and protective factors in the development of psychopathology in children and adolescents. The course includes practicum experience with youth. Fall, spring. Kupersmidt.

152 Atypical Personalities and Groups I (3). Prerequisite, Psychology 80. Addresses methods to assess, treat, and rehabilitate adults or elderly with serious mental disorders. Includes volunteering in a mental health agency serving people with schizophrenia, psychosis, or dementia. Fall, Barrick, Fanagan. Spring, Barrick.

153 Atypical Personalities and Groups II (3). Prerequisite, Psychology 152. This course studies persons and groups labeled as different, outsiders, deviant, stigmatized, or occupying disvalued roles. Focus is placed on how these individuals present themselves in person and in writing. Spring. Staff.

170 Research in Developmental Psychology (3). Prerequisites, Psychology 24 and 30. Introduction to the issues, methods, and outcomes of research in developmental psychology. Demonstrational projects designed and completed. One lecture and four laboratory hours per week. As announced. Cairns, Ornstein, Valsiner.


172 Family as a Context for Development (3). Prerequisites, Psychology 24 and 30 or permission of instructor. Explores how the family influences children's development. Topics include genetics, family structure (e.g., single parents, working mothers, divorce, number of siblings); discipline; parental values and beliefs; ethnic diversity. Fall and spring. Kurtz-Costes.

180 Introduction to the Study of Exceptional Children (3). Prerequisite, Psychology 28 or equivalent. Overview of mental retardation, autism, and learning disabilities; students devote some time each week in work with a handicapped child in addition to the regular class meetings. As announced. Staff.

183 Contemporary Sex Roles (WMST 183) (3). Prerequisite, Psychology 10. Covers theories and research in the areas of constitutional and social learning influences on sex differences; sex-role identification and the assessment of masculinity and femininity; sex differences in such areas as intellectual accomplishment, achievement, dependency and aggression; and sex differences in relation to behavior disorders. As announced. Margolis or staff.

184 Self and Society (3). Prerequisite, Psychology 10, 30 and 33. Content, structure and functions of the self-concept. How the self-concept is shaped by society and developmental processes; ways in which the self-concept affects perception of others; self-esteem. Class participation and presentations required. Psychology 30 desirable, but not required. Spring. Sedikides.

186 Nonviolent Conflict Resolution (FWAD 186) (3). Prerequisite, Psychology 10 or permission of instructor. Theories of conflict and conflict resolution are systematically applied in the contexts of personal, interpersonal, intergroup, and interethnic conflict, with a focus on empirical knowledge and acquisition of skills for nonviolent dispute resolution. Fall. Schopler.

187 Applied Social Psychology (3). Prerequisite, Psychology 30 and 33. Applications of social psychological theory/research to practical social problems and issues, e.g., organizational behavior/job satisfaction, effects of advertising and media on behavior, and discrimination-affirmative action. As announced. Staff.

188 Small Groups (3). Prerequisites, Psychology 30 and 33 or permission of instructor. Intensive survey of research and theory on behavior in small groups combined with appropriate experience in studying various structured groups. As announced. Schopler, Thompson.

189 Interpersonal Processes (3). Prerequisites, Psychology 30 and 33 or permission of instructor. Intensive coverage of normal interpersonal processes, focusing on the dyad. Fall or spring. Rusbuilt or staff.

190 Stereotyping, Prejudice, and Discrimination (3). Prerequisite, Psychology 10, 30, and 33. Examines the determinants, functions, processes, and consequences of stereotyping, prejudice, and discrimination. Prospects for change are considered. Class presentations and participation required. Psychology 50 desirable, but not required. Fall. Sedikides.

191 Attitude Change (3). Prerequisites, Psychology 30 and 33 or permission of instructor. A detailed consideration of the theoretical issues in attitude and belief change. Fall. Thompson, Sedikides.

Curriculum in Public Policy Analysis

MICHAEL I. LUGER, Chair

Professors (and members of the Dean's Advisory Committee)
Richard N. Andrews, Douglas Crawford-Brown,
James Gallagher, Harvey A. Goldstein, Donald Hornstein,
Michael I. Lugers, Duncan MacRae Jr., Dennis Orthner,
Dennis Rondinelli, Michael A. Stegman, John F. Stewart,
Gordon P. Whitaker, Dale Whittington.

Associate Professor

James Wilde.

Assistant Professors

Glenn Cassidy, John Villani.
Adjunct Faculty
Deborah Amaral, Adjunct Professor of the Practice;
Peter Blair, Adjunct Professor; Jennifer Bremer,
Adjunct Professor; Rick Carlisle, Adjunct Professor of the Practice;
Jonathan Howes, Adjunct Professor of the Practice;
John Kasarda, Adjunct Professor; Michael Munger,
Adjunct Associate Professor.

The Curriculum in Public Policy Analysis (PUPA) offers
instruction leading to a Bachelor of Arts degree. It stresses
the analysis of alternative public policies using concepts and
techniques from several disciplines, in areas of application as
diverse as health, the environment, international affairs,
urban and rural development, and social welfare. It is con-
cerned as well with policy choices by citizens, who decide
among courses of action in terms of their own values system
rather than those of an employer. In that respect, the curric-
ulum provides an education in the liberal arts. The combi-
nation of this general liberal arts training, the development of
analytic abilities, and the acquisition of substantive knowl-
edge in a particular policy area forms a useful basis for fur-
ther education for the professions or public service, as well
as for policy-related graduate work in individual disciplines.

Bachelor of Arts with a Major in Public Policy
Analysis

General College:
All General College requirements must be met. The fol-
lowing courses are recommended: ECON 10 (prerequisite
for PUPA 100), MATH 22 or 31 (prerequisite for STAT
23), POLI 41, and SOCI 20.
Several Basics Skills and Perspectives Courses also satisfy
prerequisite or core requirements of the curriculum,
including STAT 23 (prerequisite for PUPA 175) and PHIL
37. ECON 10 and either STAT 23 or a core course can be
used to satisfy General College or Arts and Sciences per-
spective requirements. Prerequisites for options chosen
below also may be taken in the General College.

Third and Fourth Years:
Specific course requirements to be met in accordance
with the following distribution.

Core Requirements:
One course in each of the following six core areas is
required (eighteen hours) unless substitution of more
advanced courses is authorized by the designated
adviser:
A. Introduction to Public Policy: Public Policy Analysis
71 or 71H;
B. Ethics and Policy Analysis: Philosophy 37, 41, 42;
Political Science 47H; Public Policy Analysis 67/City
and Regional Planning 67;
C. Economic Analysis: Public Policy Analysis
100/Economics 100; Economics 101;
D. Political and Administrative Feasibility of Policies:
Public Policy Analysis 73/City and Regional Planning
73; Public Policy Analysis 74/Political Science 74;
E. Quantitative Analysis: Public Policy Analysis
175/Political Science 175;
F. Advanced Individual Projects: Public Policy Analysis
94; Public Policy Analysis 91-92 (honors).

Specialization Courses:
Each student must take at least fifteen hours in an area of
specialization, chosen in consultation with a faculty
adviser. This may be either a substantive area or an
aspect of analysis. Recommended areas of concentration
are listed below. A listing of courses that satisfy each of
the areas is available in the curriculum office.

Business and Government Policy
Communications, Public Opinion, and Information Policy
Criminal Justice and Corrections, and Public Policy
Economic Development and Public Policy
Economic Policy
Education Policy
Environmental Protection Policy
Health Policy
International Business Policy
International Relations and Public Policy
International Trade and Economic Policy
Labor Organizations: Business and Public Policy
Labor and Social Welfare Policy
Land Use and Natural Resource Policy
Macropolicy
Natural Resources and Energy Policy
Population Policy
Public Management
Race and Gender Issues and Public Policy
Science and Technology Policy
State and Local Public Policy
The Policy-Making Process and Implementation
Transportation/Infrastructure Policy
Urban Development/Housing Policy

In addition to the above list, students may define their
own area of specialization, or combine areas, with consent of
the faculty adviser.

Note: Only 12 hours total can be taken outside Arts and
Sciences toward your degree. This includes specialization and elec-
tive courses and all professional schools.

Honors
Students who wish to apply for honors in Public Policy
Analysis should consult the director of undergraduate stud-
ies early in their junior year. A substantial project in policy
analysis is required.
Prospective majors should see the director of undergraduate
studies in Abernethy Hall.
Minor in Public Policy Analysis

The undergraduate minor in Public Policy Analysis consists of five courses.

PUPA 71 Introduction to Public Policy Analysis or 71H
PUPA 73 State and Local Government Public Policy (PLAN 73)
or
PUPA 74 Political Feasibility (POLI 74)

PUPA 100 Microeconomics for Policy Analysis (ECON 100)
or
ECON 101 Intermediate Theory: Price and Distribution
PUPA 175 Quantitative Methods in Policy Analysis (POLI 175) - [Prerequisite: STAT 23 or ECON 70]

One applied policy course, approved by the designated adviser in Public Policy Analysis.

If any courses listed above are required as part of the student’s major core, the adviser will substitute other PUPA courses, either PHIL 37, PHIL 41, PHIL 42, POLI 47H, or PUPA/PLAN 67 (all deal with ethics and policy analysis), a more advanced version of the courses listed above, or a second applied policy course.

PUPA Course Descriptions


71 Introduction to Public Policy Analysis (3). Introduction to the elements of policy analysis by citizens, including definition of problems, criteria, alternatives, models, decision procedures, and political feasibility: illustrated by case studies. Fall and spring. Staff.

73 Planning, Politics, and Urban Policy (City and Regional Planning 73) (3). A selection of public policy topics on the current urban agenda, with a focus on the political context. Particular stress on policy alternatives, feasibility, implementation, and the division of responsibility and coordination among levels of government and the public and private sectors. Spring.

74 Political Feasibility in Policy Analysis (Political Science 74) (3). Assessment of feasibility of chosen policies, including possibility of enactment and implementation; determining clearance points, predicting behavior of decision-makers; building support, assessing rhetoric. Fall and spring. Staff.

90 Internship (Var.). Supervised internship, with reports required. With permission of the designated adviser. Fall and spring. Luger, Dill.

91, 92 Honors in Public Policy Analysis (3). Directed research, on an independent basis, for majors who are preparing an honors thesis and for the oral examination on the thesis. Fall and spring. Dill, Luger.

94 Practicum in Policy Analysis (3). For senior Public Policy Analysis (PUPA) majors and other senior level students having a strong background and/or interest in the rationale, justification and techniques of, and difficulties encountered in choosing appropriate public policies for defined public problems. The course involves an in-depth analysis of a public policy problem by each member of the class. Spring. Villani.

98 Independent Study in Public Policy (Var.). Supervised study for students interested in public policy analysis. Fall and spring. Dill, Luger.

100 Microeconomics Theory and Applications (Economics 100) (3). See ECON 100 for description.

111 Environmental Economics and Politics (3). Explores the microeconomic foundations of environmental problems and their solutions, including property rights, externalities, public goods, justice and equity, and future generations and discounting. NOT an introduction to the major modern environmental regulations. Fall or spring. Villani.


175 Quantitative Analysis for Public Policy (Political Science 175) (3). Prerequisite, STAT 23; ECON 70 or equivalent. Application of statistical techniques, including regression analysis, in public policy program evaluation; research design and data collection and management. Spring. Staff.

179 Science and Policy (3). The problems of using expert knowledge in democratic policy formation. These relate to communication within scientific disciplines, scientists' values, and the use of scientific information and personnel in decision making. Fall or spring. Staff.

190 Seminar in Domestic Policy (3). Taught as part of the UNC Washington D.C. Seminar, the course introduces students to domestic policy-making from the federal perspective, using readings and lectures from the Washington policy-making community. Spring. Bremer.

198 Selected Topics in Public Policy Analysis (3). Selected topics in Public Policy Analysis. To be taught fall or spring.

198.1 Selected Topics (Computer Applications in Policy and Planning) (3). This course provides hands-on experience in the use of computers and introduces students to the use of popular PC-based software programs as tools in the practice of policy analysis and planning. Students will be exposed to spreadsheet and database applications, word processing, SAS, the Internet, and the Web Spring. Staff.

Department of Religious Studies

CARL W. ERNST, Chair

Professors

Associate Professors

Assistant Professor
Yaakov S. Ariel.

Adjunct Professors
Roger J. Corless (Duke), Philip Gura, Paul W. Meyer.

Adjunct Associate Professor
Tony K. Stewart (NCSU).

Instructor
Lance Lazar.

Professors Emeriti
The Department of Religious Studies is dedicated to the study of the world's religions as historical and cultural phenomena. We examine singly or comparatively various religious traditions, including their history, sacred texts, beliefs, rituals, and institutions. Inherently interdisciplinary in its approach, Religious Studies explores these traditions and other related phenomena in light of other cognate disciplines such as anthropology, history, philosophy, and sociology.

The department offers a wide variety of courses ranging from large introductory classes to advanced seminars, as well as independent studies and an honors thesis program for qualified students.

Introductory courses provide general vocabulary and concepts useful for the entire field of religious studies or for major areas within that general field and representative examples of issues, problems, and data in the study of religion. Courses numbered below 50 are introductory courses.

Intermediate courses provide intensification and refinement of knowledge in the study of religion by focusing on more specific data and by employing methods more precisely. Intermediate courses are numbered between 50 and 100.

Advanced courses provide for the study of specific topics and problems in which a student should integrate primary and secondary data and methods in "research essays." Admittance to this level is governed by prerequisites and by general preparation. Advanced courses are numbered above 100.

Major

There are two options in the major. In deciding on courses and an area of concentration, students may work within the subfields of American Religious History, Ancient Mediterranean Religion, History of Religions, Medieval and Early Modern Religions, and Religion and Culture.

Minimum requirements for each option are as follows:

**Intensive Option:** A total of nine courses must be taken, five of which are to be numbered above 50. Two of these five must be numbered above 100. A student is to take courses in three of the subfields, including at least one in History of Religions. A student must choose one of the three subfields as his or her area of concentration. At least five courses are to be taken within this concentration, including both of those numbered above 100.

**Extensive Option:** A total of nine courses must be taken, five of which are to be numbered above 50. Two of these five must be numbered above 100. A student is to take courses in four of the subfields, including at least one in History of Religions. A student must choose one of the four subfields as his or her area of concentration. At least three courses are to be taken within this concentration, including at least one of those numbered above 100.

Additional information about the major is available from the departmental office, 101 Saunders Hall.

**Minor in Religious Studies**

The undergraduate minor in Religious Studies consists of five religion courses. Three of the five courses must be above the 50 level and one course must be above the 100 level.

**Additional Information**

A. Honors Program: Students majoring in Religious Studies (including double majors) with a grade point average of 3.3 or above in department courses and 3.2 GPA overall may choose to do an honors thesis. Candidates for graduation with Honors in Religious Studies are to be enrolled in RELI 97 in the fall and RELI 98 in the spring semester of their senior year. Consult the department's director of undergraduate studies for details.

B. Languages: Those wishing to proceed to graduate study in religion should give special consideration to the inclusion in the undergraduate program of two or more languages in which the sacred literatures of the world have been written as well as the modern languages of scholarship. In addition to the language courses offered by this department, UNC-Chapel Hill offers courses in Greek, Akkadian, Hebrew, Hindi-Urdu, Latin, Arabic, and Sanskrit.

C. Other undergraduate courses: Majors should consult with their advisers concerning other undergraduate courses which have a particular relevance to the study of religion.

D. Other programs: The Department of Religious Studies also offers an M.A. and a Ph.D. in Religious Studies. M.A. and Ph.D. students in other departments may minor in religion.

**Course Descriptions**

10 World Religions (3). An introduction to the basic beliefs, rituals, and institutions of the major Western and non-Western religions. Spring. Ernst, Waggoner.

20 Culture of the Ancient Near East (HIST 92A) (3). A consideration of the cultural and religious milieu of the second millennium B.C. as it sheds light on Biblical origins. Fall. Sasson.

21 Introduction to Old Testament Literature (3). Fall. Van Seters, Sasson.


24 Introduction to Judaic Civilization (3). Continuity and change in the major periods of Judaism. Fall. Halperin.

25 Introduction to Islamic Civilization (HIST 36) (3). A broad, comprehensive, and interdisciplinary introduction to the traditional civilization of the Muslim world. Fall. Shields.

26 Later Islamic Civilization and the Modern Muslim World (HIST 37) (3). A broad interdisciplinary survey of the later Islamic empires since the fifteenth century and their successor societies in the modern Muslim world. Spring. Shields.


29 Religion in America (HIST 92B) (3). An introduction to the history, themes, and issues in American religion from the precolonial period to the present. Fall, spring, summer. Ariel, Mafty-Kipp, Tweed.
30 Critical Issues in Western Religious Thought (3). A consideration of major questions within and about religious thought. Fall or spring. Kaufman.

31 Introduction to Religion and Culture (3). This course gives beginning students a sense of what it means to study religion as an academic subject. Some of the most significant instances of the emergence, development, and transmission of religious traditions are examined in crosscultural context. Masuzawa.

32 Philosophy of Religion (PHIL 32) (3). A philosophical inquiry into the problems of religious experience and belief, as expressed in philosophic, religious, and literary documents from traditional and contemporary sources. Fall and spring. Adams, Rosenberg, Nord.

33 The Claims of Science and Religion (PHIL 43) (3). The proposition that God exists treated as a scientific hypothesis. Evidence for and against the hypothesis. The status of other minds and free will in science and religion. Conflicting views about creation, revelation, miracles, and prayers. Spring. Schlesinger.

35 Introduction to Philosophical Approaches to Religion (3). An inquiry into the philosophical assumptions underlying various approaches to religious phenomena, with special reference to ritual, myth, belief, symbolism, and other forms of religious practice. Fall or spring. Tyson.

36 Introduction to the Psychology of Religion (3). A philosophical perspective on religious experiences in various cultures and religious systems as defined by such authors as William James, Sigmund Freud, and Mircea Eliade. Fall or spring, Peck.

37 Introduction to Religious Ethics (3). A study of the nature, methods, and aims of ethics, as seen in exemplary persons and actions in Western culture, with emphasis on religious and social context and contemporary problems. Fall or spring. Tyson.

39 Asian Religions (ASIA 39) (3). An introduction to major religions of South Asia and East Asia, such as Hinduism, Buddhism, Confucianism, Taoism, and Shintoism. Fall. Sanford.

40 Mysticism (3). Comparative study of mysticism in several religious traditions, Eastern and Western. Spring. Staff.

43 Ideals, Cultures, and Rituals of the University (3). Prerequisite, permission of the instructor. A religious studies approach to the rituals, cultures, and disciplines of the university, assessing the ways in which explanatory ideals are embedded, changed, and promoted. Spring. Kaufman.

44 Introduction to American Judaism (3). Course provides a comprehensive introduction to American Judaism, its various movements, institutions, theological and liturgical characteristics, as well as its standing within the larger framework of religious life in America. Spring. Ariel.


46 Catholicism in America (3). An introduction to Roman Catholicism in the United States. Fall, spring, Tweed.

54 The Religion of Israel (3). A study of basic aspects of Israelite religion, including expression of theological themes (e.g., creation, salvation, monotheism), religious institutions (e.g., priesthood and prophets), and religious practices (e.g., prayer and sacrifice). Spring. Van Seters.


56 History and Culture of Ancient Israel (HIST 92C) (3). An examination extending from Hebrew origins to the Babylonian exile and including political history as well as social and religious institutions. Spring. Van Seters.

57 Prophecy in Ancient Israel (3). An examination of the origins, psychology, and conventional forms of prophecy as well as the writings of major prophets of the Old Testament. Fall. Van Seters.

58 Jesus in Myth, Tradition, and History 30 - 200 A.D. (3). An analysis of the variety of traditions used in the first two centuries to portray Jesus, focusing on the reasons for this variety, and the historical and literary problems it presents. Fall. Ehrlman.

59 The Birth of Christianity (3). An analysis of the origin of the Christian Church and the earliest stages of its expansion with particular emphasis on the problems evident in the shift from a Jewish to a Gentile framework. Paul's role and contribution in defining and resolving the issues will be considered in detail and evaluated in the light of subsequent events. Spring. Ehrlman.

60 Islamic Civilization (3). Survey of scriptural, legal, mystical, and speculative texts illustrating the Muslim intellectual tradition, including Sunni legal schools, Shi'ism, Sufism, and dialectical theology. Fall. Ernst.

61 Varieties of Early Christianity (3). A study of various forms of Christianity in the second and third centuries (e.g., Gnosticism, Marcionism, Montanism), focusing on their polemical relationship to orthodox Christianity. Fall. Ehrlman.

62 Islamic Civilization in the Modern World (3). Religion, politics, and culture in Islamic countries from 1500 to the present, with emphasis on last great empires (Mughul, Ottoman, and Safavid), European imperialism, and problems confronting Muslims today. Spring. Ernst.

63 Medieval Philosophy (PHIL 57) (3). A survey of medieval philosophy from Augustine through Ockham. Topics: God and the world, faith and reason, knowledge and reality, the problem of universals. Additional main authors: Anselm, Aquinas, Duns Scotus. Spring. Galligan.

64 Hindu Sacred Texts (ASIA 64) (3). The most widely known and used religious texts of India studied in their ancient and modern context with consideration of their past and present importance to the Western world. On demand. Waghorne.

65 Hindu Rites, Rituals, Feasts, and Festivals (ASIA 65) (3). An introduction to the importance of ritual in Hinduism. Close study of contemporary temple and domestic rites as well as public festivals. Special attention to methods and problems of interpretation. Fall, spring. Waghorne.

66 The Buddhist Tradition: East Asia (3). Historical inquiry into the development of Buddhism from its origins through its periods of greatest glory in India, China, and Japan. On demand. Sanford.

67 The Buddhist Tradition: East Asia (3). Prerequisite, RELI 10, 39 or permission. An examination of the transformations and developments affecting Buddhism after its importation to East Asia. Special attention will be given to Ch'an/Zen, the Pure Land schools, and the esoteric traditions. Fall, spring. Sanford.

68 Religion, Literature, and the Arts in America (3). A study of religious ideas and cultural forms in America through an examination of a variety of genres including novels, poetry, essays, and sermons. Maffly-Kipp.


71 Liberal Tradition in American Religion (3). An examination of the growth of liberal theological expressions, such as rationalism, romanticism, and modernism, from the early eighteenth century to the present. Spring. Tweed.

72 Evangelical Tradition in America (3). An attempt to define the historical, sociological, and constitutional dimensions of Protestant evangelicalism in Britain and America. Fall or spring. Maffly-Kipp.

74 New Religious Movements in America (3). An introduction to new religious movements in the United States, with emphasis on the nature of conversion and the role of founders. Fall or spring. Tweed. GC social science perspective.
75 The Archaeology of Cult: The Material Culture of Greek Religion (CLAR 75) (3). The course examines the archaeological context of Greek religion, cults, and associated rituals from the Bronze Age until the Hellenistic period with emphasis on urban, rural, and panhellenic sanctuaries, and methods of approaching ancient religion and analyzing cult practices. Spring. Haggis.

76 Chinese Religious and Philosophical Texts I (ASIA 76) (3). Prerequisite, permission of instructor. An introduction to the reading of classical Chinese religio-philosophical texts in the original language. Prior knowledge of Chinese is not required. On demand. Sanford.

77 Chinese Religious and Philosophical Texts II (ASIA 77) (3). Prerequisite, RELI 76 and permission of instructor. An in-depth reading in a single text or tradition of texts. On demand. Sanford.

78 Judaism in Our Time (3). An examination of Judaism in its two major centers, demonstrating how different social and cultural environments shape very different interpretations and practices of the Jewish tradition. Spring.

79 Religion in Modern Israel (3). Examines the major religious groups that operate in the State of Israel and influence its social and cultural development; analyzes the relationship among religion, state, and society in Israel. Spring. Ariel.

80 Social Theory and Cultural Diversity (3). Introduction to basic paradigms of thinking about cultural difference (race, gender, nationality, religion, etc.). The course encourages students to examine the ways the paradigms shape how we act, think, and imagine as members of diverse cultures. Fall or spring. Staff.

81 Religion and Literature (3). Prerequisite, RELI 31 or permission. Through reading of literary works, addresses issues concerning the relation between religion and literature. While examining critically the traditional notion of literature as one of the cultural media available for expressing religious ideas, the course explores other forms of correlation between the two. The texts are selected from various cultural traditions. Masuzawa.

83 Magic, Religion and Science (3). Critical study of the ways in which magic, religion, and science as distinct domains of knowledge and practice have been conceived and regulated in the West since the late 18th century. Fall or spring. Masuzawa. BA-level philosophical perspective.

84 Psychology of Religion (3). Prerequisite, RELI 36 or permission of instructor. Critical studies of texts (e.g., James, Freud, Jung, Kierkegaard) dealing with the dynamics of religious experience. Psychological, philosophical, and literary approaches to personality change, mystical states, myths, dreams, and symbols. Fall or spring. Peck.

90 African-American Religious Experience (AFAM 090, ANTH 090) (3). Prerequisite, students must have taken at least one course in AFAM, ANTH, or RELI. An introduction to the diversity of African American beliefs, experiences, and expressions from the colonial era to the present. Exploration will be both historical and thematic. Hinson, Maffly-Kipp. Cultural diversity requirement.

94A Symbolism (3). Examination of various leading theories of symbolism and their application to several areas of modern culture. Particular emphasis placed on symbolism in art and religion but other fields will be considered. Fall or spring. Staff.

97, 98 Courses for Honors (3 each semester). Prerequisite, permission of instructor and the director of undergraduate studies. Required of all students reading for honors in Religious Studies. Fall and spring. Staff.

99 Topics in the Study of Religion (3). Prerequisite, permission of instructor. Subject matter will vary with instructor and topic, but will always be focused on a particular problem or issue. Fall and spring. Staff.

100 Discourse of World Religions (3). Critical study of the history and the ideology of "world religions" as a concept and as a strategy for coming to terms with the multiplicity of cultural traditions. Fall, spring. Masuzawa. BA-level social science perspective.


107 Topics in Philosophical Problems in Religion (3). Prerequisite, senior or graduate standing, or permission of instructor. Topic varies. Fall or spring. Tyson.

113 Biblical Hebrew (3). Introduction to the grammar and exegesis of Biblical Hebrew. Fall. Staff.

114 Biblical Hebrew (3). Prerequisite, RELI 113 or permission of instructor. Continuation of Religion 113. Spring. Staff.


117, 118 Elementary Akkadian (3 each semester). Prerequisite, permission of instructor. An introduction to the cuneiform script and the elements of Akkadian grammar. Selected readings in Old Babylonian (Code Hammurabi, Atrahasis) and Neo-Assyrian texts (Epic of Creation, Gilgamesh Epic). On demand. Saxon.

119 Greek New Testament (Greek 158) (3). Prerequisite, Greek 22 or equivalent. On demand. Staff.

120 Religion, Fundamentalism, and Nationalism (PWAD 120) (3). An exploration of explosive combinations of religion and politics in the Islamic revolution, the Palestinian movement, Hindu nationalism in India, and Christian fundamentalism in America. Spring. Ernst.

121 Myths and Epics of the Ancient Near East (FOLK 141) (3). Prerequisite, permission of instructor. An examination of Babylonian, Canaanite, Egyptian, Hittite, and Sumerian texts from the pre-Biblical era, focusing on representative myths, epics, sagas, songs, proverbs, prophecies, and hymns. Spring. Alternate years. Saxon.


127 Problems in Early Christian Literature and History (3). Prerequisite, one of the following: RELI 22, 58, 59, or permission of instructor. Fall. Staff.


132 Topics in Medieval Philosophy (PHIL 152) (3). An intensive study of some medieval philosophical author (e.g., Aquinas, Scotus, or Ockham) or topic (e.g., arguments for the existence of God, universals, knowledge of individuals). Spring. Calligan.


136 Studies in Christian Theologies and Theologians (3). Prerequisite, permission of instructor. An investigation of one writer or school in the history of Christian theology as an example of typical methods, positions, and problems within the tradition. Fall or spring. Kaufman.
137 The Art of Devotion in Medieval and Early Modern Europe (3). Prerequisites, RELI 27, RELI 30 or permission of instructor. This course examines creative expression at the service of religious belief from 1000 to 1700. Poetry, drama, art, architecture, and music will be the texts to understand the religious culture of this rich period. Fall.

138 Modern Western Religious Thought (3). Prerequisite, one of the following: RELI 27, 29, 30, 32, 35, PHIL 32 or 60. Representative themes and approaches in the work of modern Western religious thinkers. Fall or spring. Kaufman.

140 Studies in American Religion (3). Prerequisite, permission of instructor. A consideration of varying topics from intellectual, literary, social, and cultural dimensions of American religion. Fall or spring. Ariel, Maffly-Kipp, Tweed.

142 Religion and Anthropology (ANTH 142, FOLK 142) (3). Prerequisite, junior/senior or graduate standing. Religion, studied anthropologically, as a cultural, social, psychological phenomenon in the works of classical and contemporary social thought. Fall or spring. Tyson and Peacock.

144 Medieval Slavic Culture (SLAV 144) (3). See Slavic 144 for description.

145 The Figure of the Father in Religion and Literature (Women's Studies 145) (3). Prerequisite, permission of instructor. The relationship between the figure of the father and the authority of the law (religious, societal, or familial) studied through such writers as Flaubert, Kafka, and Freud. Fall or spring. Masuzawa.

148 History of Religion in America to 1865 (3). An examination of primary sources in the history of American religion from the precolonial era to the Civil War. Fall or spring. Ariel, Maffly-Kipp, Tweed.

149 History of Religion in America since 1865 (3). An examination of primary sources in the history of American religion since the Civil War. Fall or spring. Ariel, Maffly-Kipp, Tweed.

155 Asian Religions in America (ASIA 155) (3). A study of intercultural interaction and interreligious encounter focusing on Asian religions in America, 1784 to the present. Fall, spring. Tweed. GC non-Western/comparative perspective.

156 Ethnicity, Race and Religion in America (3). Prerequisite, RELI 29 or permission. A methodological inquiry into ethnicity, race, and religion as constituents of personal and communal identity. Emphasis on the implications of these categories for a religiously pluralistic society. Maffly-Kipp.

158 The Reshaping of American Religion since 1960 (3). Course examines developments in American religion since the 1960s. It explores new modes of religious life in America as well as the reshaping of the general religious scene. Fall. Ariel.

159 Public Religion in U.S. History (HIST 159) (3). Prerequisite, introductory History or Religious Studies course. A study of public religion in U.S. history including the relations of religion and government, the idea of American exceptionalism and destiny, the role of religious movements. Fall. Mathews.

160 Topics in Comparative Religion (3). Cross-cultural investigation of specific problems or issues in the general history of religions (e.g., pilgrimage, religious biography, "new" religions). Sanford, Waghomme.

161 Selected Topics in the Study of Asian Religions (3). Prerequisite, permission of instructor. A close examination of a selected topic in Asian religions. On demand. Sanford.

162 Taoism (ASIA 162) (3). A study of the major writings and cultic forms of Taoism. Some attention will also be given to related unorthodox, popular movements. Fall or spring. Sanford.

163 Japanese Religion since 1868 (ASIA 163) (3). Prerequisite, Religion 89 or permission of instructor. Japanese religion in the modern period. Consideration of the invention of State Shinto, the suppression and modernization of Buddhism, the emergence of the "new" and "new new" religions, etc. Fall. Sanford.

169 Medieval Religious Texts (3). Prerequisites, permission of instructor and reading knowledge of Latin. Readings in one or two major texts in Latin that permit close study of several issues in the development of Christian life and thought during the Middle Ages. Spring. Kaufman.

171 Sufism (ASIA 171) (3). Prerequisite, permission of instructor. A survey of Islamic mysticism, its sources in the Qur'an and the Prophet Muhammad, and its literary, cultural, and social deployment in Arab, Persian, Indic, and Turkish regions. Fall. Ernst.

172 Islam and Islamic Art in South Asia (ASIA 172) (3). A survey of the formation of Islamic traditions in the subcontinent from the eighth century to the present, with emphasis on religion and politics, the role of Sufism, types of popular religion, and questions of Islamic identity. Fall. Ernst.

174 Chinese World Views (Anthropology 174, ASIA 174) (3). An approach to Chinese history, literature, science, and society through an exploration of a few pervasive cultural themes. Chinese sources in translation and western anthropological and philosophical sources are used. Fall or spring. Farquhar.

175 Religion and Culture in Modern South Asia (ASIA 175) (3). Study of Buddhism, Islam, and Hinduism in the development of contemporary Sri Lanka, Pakistan, and India respectively. Focus on the roots of change in the late nineteenth century and the problems of modernization. Fall. Waghomme.

178 Gender in the History of Religions (ASIA 178) (3). Developments in the use of gender as a religious symbol and a religious structure from primal religion to the beginning of a philosophical tradition in Asia, Africa, and Europe. Fall or spring. Waghomme.

179 Readings in Islamicate Literatures (ASIA 179) (3). Prerequisite, permission of instructor. Study of selected religious, literary, and historical texts in Arabic, Persian, or Urdu. On demand. Ernst.

180 Topics in Religion and Culture (3). Permission of instructor required. Advanced undergraduate seminar in religion and culture. Topics vary. Staff.

184 Studies in the Psychology of Religion (3). Prerequisite, Religion 36, 84, or permission of instructor. The interpretation of mythology, dreams, and rituals, using the resources of depth psychology and the tools of cultural criticism. Fall or spring. Peck.

185 Shamanism, Feminism, and Colonialism (3). Shamanism, feminism, and colonialism as significant forces in Latin American religious history and cultural life. Spring. Peck.

186 Freud and Nietzsche on Religion and Interpretation (3). Prerequisite, permission of instructor. A close examination of selected works by Nietzsche and Freud and their critical impact on the contemporary analysis of science and religion or philosophy. Fall or spring. Alternate years. Masuzawa.

187 Studies in the Rhetoric of Religion (3). Prerequisite, permission of instructor. An examination of ritual, allegory, and symbol as modes of religious expression in cultural and literary contexts. Fall or spring. Tyson.

190 Religion and Society (Sociology 121) (3). Prerequisite, Sociology 10 or permission of instructor. Sociological analysis of group beliefs and practices, traditionally religious and secular, through which fundamental life experiences are given coherence and meaning. Fall or spring. Reed.

190 Religious Ethics and Issues in Contemporary Medicine (3). Prerequisite, senior or graduate standing. Examination of religious-ethical dimensions of such issues as the dying patient, organ transplant, abortion, prolongation of life, and experimentation on human beings, drawing on theory from the traditional western religions and the social sciences. Fall or spring. Churchill.

193 Special Topics in Mysticism (3). Prerequisite, permission of instructor. Historical and typological study of specific aspects of mystical and non-normative religious forms. Fall or spring. Staff.

199 Independent Study (3). Prerequisites, advanced undergraduate or graduate standing and permission of instructor. Subject matter should be arranged with specific instructor. Fall and spring. Staff.

Department of Romance Languages

FRANK A. DOMÍNGUEZ, CHAIR

Professors
Cesáreo Bandera, Pablo Gil Casado, Dino Cervigni, Angel L. Cilveti, Fred M. Clark, Frank A. Domínguez, I. R. Stirling Haig, Antonio Illiano, Larry D. King, Catherine A. Maley, G. Mallary Masters, James S. Noblitt, Monica P. Rector, María A. Salgado, Carol Lynn Sherman, Frederick Wright Vogler.

Associate Professors

Assistant Professors
Sahar Amer, Alejandro Mejías-López.

Professors Emeriti

Minor in French, Italian, Portuguese, or Spanish

The Department of Romance Languages offers a minor area of study in four languages—French, Italian, Portuguese, or Spanish. The minor in any of these languages consists of a minimum of five courses in one language selected from among those numbered between 50 and 199 applicable to the major, excluding 83, 84, 94B, and 97 (and excluding Spanish 51). One of the five courses must be the composition and grammar review course offered in each of the four languages, i.e., French 50, Italian 50, Portuguese 51, and Spanish 50.

Honors in French, Italian, Portuguese, or Spanish

The departmental honors program is open to any qualified major in French, Italian, Portuguese, or Spanish with at least a 3.2 average. The student pursuing a degree with honors in one of the above must take the 95 and 97 series of courses in their area (French 95, French 97; Italian 95, Italian 97; Portuguese 95, Portuguese 97; Spanish 95, Spanish 97). The student, in consultation with the director of honors for French, Italian, Portuguese, or Spanish, will formulate a topic and select an appropriate faculty member to supervise the thesis. In the 95 course the mechanics of researching and writing the senior thesis will be discussed, and a start made on the thesis itself. In the 97 course the thesis will be completed and the student examined by the supervisor and two additional faculty members to be agreed upon by the student and supervisor. The director of honors, in consultation with the examiners, will recommend that the student who has defended the thesis graduate with honors, highest honors, or merely with course credit.

Applicants for the Honors Program should contact the director of honors for French, Italian, Portuguese, or Spanish.

Catalan

Course Description


French

Students interested in a major in French should consult the undergraduate adviser for French and Italian in 238 Dey Hall.

Students who plan to teach in public high schools should see “School of Education.”

The upper-college requirement for a major in French is eight courses.

French 50, 60, 61, and 62 are required.

Of the remaining four, two should be chosen from 51, 52, 53, 76, 79, 95 (nonliterature), 126, 136, 145, and 146; and two others chosen from that group or from 77, 78, 80, 81, 82, 95 (literature), and 96.

Those who read for honors will take 97 as a ninth major course. (French 51 does not count toward the major for students who have spent an academic year in France.)

UNC Year-at-Montpellier

The University sponsors an academic year and a semester of study in Montpellier, France, in cooperation with the Université de Montpellier. Students from UNC-Chapel Hill and from other institutions may earn up to thirty semester hours of undergraduate credit under the supervision of the resident director, a member of the faculty of the University of North Carolina at Chapel Hill. The program is open to qualified undergraduates regardless of academic major and is not restricted to third-year students. Inquiries should be addressed to UNC Year-at-Montpellier, 238 Dey Hall.

Course Descriptions

1, 2 Elementary French (4 each). The sequence 1, 2 introduces the essential elements of French structure and vocabulary and aspects of French culture. Aural comprehension, reading, speaking, and writing are stressed in that order. Four hours a week plus laboratory. Staff.

1-2 Intensive Elementary French (6). The 1-2 course covers the material of the 1, 2 sequence in a single semester. Six hours a week, plus one hour of unsupervised laboratory. Fall. Staff.

3, 4 Intermediate French (3 each). French 3, 4 is a two-semester sequence designed to increase reading and writing skills. An introduction to representative literary works is included. Aural comprehension and speaking skills are also stressed. Staff.
34. Intensive Intermediate French (6). Prerequisite, French 1-2. The 3-4 course is a continuation of the 1-2 sequence. Six hours a week, plus one hour of unsupervised laboratory. Fall. Spring. Staff.

14. 15 Beginning French for Advanced Students (3 each). A beginning sequence for students with at least four semesters of another foreign language. Emphasis in the first semester is on grammar; in the second, on reading, writing, and speaking. Use of the language laboratory is required. Completion of sequence should enable one to understand lectures in literature classes. Fall and spring. Staff.

20 Language through Culture and Literature (3). Prerequisite, French 4 or equivalent. A fifth-semester course with emphasis on further development and refinement of speaking, listening, reading, and writing skills, including a review of grammar through the study of literary and cultural texts. Fall, spring. Staff.

21 Introduction to French Literature (3). Prerequisite, French 4 or equivalent. Selections from the major genres of French literature from the Renaissance to the present. Lectures and discussions in French. Any semester. Staff.

21A Introduction to French Literature (3). Same description as French 21 above.

23 Introduction to French Conversation (3). Prerequisite, French 4 or equivalent. An introductory conversation course, generally taught by native speakers, with the goal of building oral proficiency while increasing awareness of French culture. Emphasizes building vocabulary and addressing problematic grammatical structures. Fall, spring. Staff.

23A Intermediate Conversation (3). Same description as French 23 above.


40 French Theatre in Translation (3). See “Courses in French Translation.”

41 French Novel in Translation (3). See “Courses in French Translation.”

43 French Women Writers in English Translation (WMST 43). See “Courses in French Translation.”

50 French Composition and Grammar Review (3). Prerequisite, French 21 or 23 or equivalent. Third-year grammar review and composition course designed to improve accuracy and develop writing skills through ongoing exercises and compositions using task-oriented and process-writing approaches. Fall, spring. Staff.

51 Intermediate French Conversation (3). Prerequisite, French 23 or equivalent. Intermediate conversation course designed to expand speaking skills through activities that stimulate conversation, the discussion of authentic readings, and vocabulary building. Continued development of writing skills is also emphasized. Fall, spring. Staff.

52 French Civilization I (3). Prerequisite, French 21 or equivalent. A study of important aspects of French civilization from its beginning to the French Revolution. Fall. Vogler.

55 French Civilization II (3). Continuation of French 52, from the Revolution to the present. Spring. Vogler.

60 Survey of French Literature I (3). Prerequisite, French 21 or equivalent and French 50 (may be corequisite). A survey of French literature from its origins through the sixteenth century. Fall or spring. Staff.

61 Survey of French Literature II (3). Prerequisite, French 21 or equivalent and French 50 (may be corequisite). A survey of French literature of the seventeenth and eighteenth centuries. Fall or spring. Staff.

62 Survey of French Literature III (3). Prerequisite, French 21 or equivalent and French 50 (may be corequisite). A survey of French literature of the nineteenth and twentieth centuries. Fall or spring. Staff.

76 Advanced French Conversation (3). Prerequisite, French 51 or equivalent and French 50 (may be corequisite). Contemporary topics in French and Francophone culture; conversation and composition. Readings from recent books, journals, and newspapers. Staff.


78 French Cultural Studies (3). Prerequisite, French 21 or equivalent. Studies in cultural diversity and multiculturalism in literature, media, and film. Fall, alternate years. Amer, Antle, Fisher, staff.

79 The Role of France in Europe Today (3). Prerequisite, French 21 or equivalent. Interdisciplinary studies in the construction of European identity and French culture. Antle, Fisher, staff.

80 Studies in French Drama and/or Film (3). Prerequisite, French 21 and French 50. Comic and tragic techniques in French theatre and/or French cinema, with specific selection of materials to be announced in advance by instructor. Antle, staff.

81 Readings in French Poetry (3). Prerequisite, French 21 and French 50. Specific selection of materials in verse and/or prose to be announced in advance by instructor. de la Quérière, Masters, staff.

82 Readings in French Prose (3). Prerequisite, French 21 and French 50. Specific selection of materials from novel, short story, essay, autobiography, etc. will be made and announced by instructor. de la Quérière, Haig, staff.


94A Courtship and Courtliness from King Arthur to Queen Victoria (WMST 94A). (3). Interdisciplinary study of western views concerning love between the sexes, focusing on courtly love in the Middle Ages and romantic love in the Victorian era. Literary, historical, and art historical materials. Spring. Burns. Does not count toward major.

94B Grounding of Ethics (3). An investigation of the relationship between philosophy and literature, focusing on the distinctions between common morality and ethics, and on what foundation values might be established in a world of changing beliefs. Spring. de la Quérière. Capstone course. Does not count toward major.

95 Special Topics or Readings in French (3). A tutorial for advanced students in French on a literary or nonliterary topic agreed upon by the student and a member of the faculty. Any semester. Staff.

96 Undergraduate Seminar in French Literature (3). Prerequisites, French 21 or equivalent and French 50, may be corequisites. Inquire in Dey Hall, Room 258 for subject. Any semester. Staff.

97 Honors Thesis in French (3). Required of all students reading for honors. Preparation of an essay under the direction of a member of the faculty. Topic to be approved by thesis director in consultation with honors adviser. Any semester. Staff.


126 History of the French Language (Linguistics 164). (3). Prerequisite, French 50 or permission of instructor. Beginning with the Latin foundation, the phonology, morphology, and syntax of French are traced from the 9th century to the present through lectures, readings, discussions, and textual analysis. Spring, alternate years. Maley.

145 French Phonetics and Phonology (Linguistics 165) (3). Prerequisite, French 50 or equivalent, or permission of instructor. The study of sounds as system in modern standard French. Lecture, discussion, laboratory practice in practical phonetics according to individual needs. Spring. Maley.

146 Structure of Modern French (Linguistics 160) (3). Prerequisite, French 50 or equivalent, or permission of instructor. Introduction to phonology, morphology, and syntax of modern standard French and to theories of modern grammar. Attention also given to the application of linguistic theory to the teaching of French. Fall. Maley.

Italian

Students interested in a major in Italian should consult the undergraduate adviser for French and Italian. (Inquire in 238 Dey Hall.)

The upper-college requirement for the B.A. degree with a major in Italian is eight courses including Italian 50, and seven courses chosen from 51, 52, 55, 60, 61, 82, 95, 96, 111, 112, 126, 134, 135, 141, 151, 171, 181, 194, 195, 196.

Course Descriptions

1, 2 Elementary Italian (3 each). The sequence of 1, 2 introduces the essential elements of the Italian language and aspects of Italian culture. Aural comprehension, speaking, reading, and writing are stressed in that order. Staff.

3, 4 Intermediate Italian (3 each). Designed to develop basic skills with emphasis on speaking and writing, this sequence will also complete a systematic review of grammar. Italian 4 will introduce readings in literature. Staff.

14, 15 Accelerated Italian (3 each). A two-semester sequence for students with special aptitude and interest in developing language skills. Recommended for those planning work in Italian literature. Does not fulfill General Education requirement. Staff.

21 Advanced Italian (3). Based on the reading of selected works of modern prose and drama, this course is designed to continue the study of grammar and syntax and to motivate the student for more advanced work in literature. Fall. Staff.

23 Introduction to Italian Conversation (3). Prerequisite, Italian 4 or permission of instructor. Emphasis on practical, everyday use of the language. Any semester. Staff.

40 Dante in English Translation (3). See "Courses in English Translation." Fall. Cervigni.

41 Italian Renaissance Literature in Translation (3). See "Courses in English Translation."

42 Modern Italian Literature in Translation (3). See "Courses in English Translation."

50 Italian Composition and Grammar Review (3). Prerequisite, Italian 4, 15, or equivalent. Fall. Staff.

51 Italian Conversation (3). Prerequisite, Italian 4, 15, or equivalent, or permission of instructor. Spring. Staff.

52 Italian Civilization (3). Prerequisite, Italian 4, 15, or permission of instructor. A study of the importance of Italian civilization from its beginning to the present. Fall. Staff.

55 Italian Film and Culture (3). Italian culture through the analysis of films from World War II to the present. Lectures in English. Films in Italian with English subtitles. Class discussion in English; readings in the original language for Italian majors and in translation for non-majors. BA-level aesthetic perspective. Cervigni.

60 Survey of Italian Literature I (3). Prerequisites, Italian 15, 21, or permission of instructor. A survey of Italian literature from its origins through the sixteenth century. Spring. Staff.

61 Survey of Italian Literature II (3). Prerequisites, Italian 15, 21, or permission of instructor. A survey of Italian literature from the seventeenth century to the present. Fall. Staff.

82 The Modern Italian Novel (3). Prerequisites, Italian 15, 21, or permission of instructor. A representative sampling of the genre from Verga to the present. Spring. Staff.

95 Special Topics of Readings in Italian Literature (3). A tutorial for advanced students in Italian on a topic agreed upon by the student and a member of the faculty. Any semester. Staff.

96 Undergraduate Seminar in Italian Literature (3). A seminar on a previously announced subject. Any semester. Staff.

97 Honors Thesis (3). Required of all students reading for honors. Preparation of an essay under the direction of a member of the faculty. Topics to be approved by thesis director in consultation with honors adviser. Any semester. Staff.

103 Advanced Composition for Graduate Students (3). Review of advanced grammar. Composition on a variety of topics designed to enhance writing proficiency in Italian. Training in the use of stylistic devices. Fall, alternate years. Cervigni, Illiano, Rao.

111 Survey of Italian Literature I (to 1600) (3). Prerequisite, permission of instructor for undergraduate; none for graduate. The survey will be conducted as comprehensively as is feasible on the basis of available anthologies in the original language, with particular attention to authors and texts included in the current departmental reading lists. Fall, alternate years. Rao.

112 Survey of Italian Literature II (1600 to present) (3). Prerequisite, permission of instructor for undergraduate; none for graduate. See description under ITAL 111. Spring, alternate years. Illiano.

126 History of the Italian Language (3). Prerequisites, Italian 15, or 21, and permission of instructor. The evolution of the Italian language as documented in literary texts from the origins to the present. Spring, alternate years. Rao.

134 Petrarch and the Lyric Tradition (3). A reading of Petrarch's Canzoniere within the context of previous lyric tradition and Petrarchism in Europe: Class discussion in English; readings in Italian for majors and in translation for non-majors. Every third year. Cervigni.

135 Boccaccio and European Narrative (3). Boccaccio's Decameron within the context of previous narrative traditions and subsequent development of narrative in Europe. Class discussion in English; readings in Italian for majors and in translation for non-majors. Every third year. Cervigni.

141 Italian Literature of the Renaissance I: the Quattrocento (3). Prerequisites, Italian 15 or 21, or equivalent. A study of the major figures of Italian Humanism, Latin and vernacular, from Salutati to Poliziano. Fall. Any semester. Rao.

151 Italian Literature of the Renaissance II: The Cinquecento (3). Prerequisite, Italian 15 or 21 or equivalent. After a brief description of the literary situation in the Cinquecento the following three authors will be studied in detail, with close reading of the three works indicated: Machiavelli, Il Principe; Castiglione, II Cortegiano; and Ariosto, Orlando Furioso. Spring, 1996 and every third year. Rao.

171 The Eighteenth Century (3). Prerequisite, Italian 15 or 21. The literature of Arcadia, the Enlightenment, and Neo-Classicism. Vico, Goldoni, Parini, and Alfieri. Fall, alternate years. Illiano.

181 Italian Romanticism (3). Prerequisite, Italian 15 or 21. Romanticism: Alfieri; the lyrics and novels of Foscolo, Leopardi, Manzoni; the Romantic drama from Pindeamonte to Niccolini. Fall. Illiano. Any semester. Illiano.

182 Italian Literature in the Second Half of the Nineteenth Century (3). Prerequisite, Italian 15, 21, or equivalent. The major literary forms in the second half of the century with particular regard to Verismo, Verga, Carducci, Pascoli, Scapigliatura, and Decadentismo. Spring. Any semester: Illiano.
194 Modern Italian Poetry (3). Prerequisite, Italian 15 or 21. The major poets and trends of the nineteenth and twentieth centuries: Decadent, Crepuscolari, Futurist, and Ermetici. Fall. Any semester. Illiano.

195 Modern Italian Fiction (3). Prerequisite, Italian 15 or 21. D’Annunzio, Svevo, Moravia, Pavese, Vittorini, Calvino, etc. Fall. Any semester. Illiano.

196 Modern Italian Drama (3). Prerequisite, Italian 15 or 21. Grotteschi, Pirandello, Italian drama after World War II, Eduardo de Filippo, etc. Spring. Any semester. Illiano.

Portuguese

Students interested in a major in Portuguese should consult the Portuguese language adviser in 238 Dey Hall.

The upper-college requirement for the B.A. degree with a major in Portuguese is eight courses to be chosen from:

- Portuguese 51: Composition and Conversation
- Portuguese 53: Luso-Brazilian Civilization
- Portuguese 95: Special Topics or Readings in Portuguese
- Portuguese 96: Seminar in Brazilian or Portuguese Literature
- Portuguese 101, 102: Survey of Portuguese Literature
- Portuguese 103, 104: Survey of Brazilian Literature
- Portuguese 126: History of the Portuguese Literature
- Portuguese 135: Brazilian Drama

Course Descriptions

1, 2 Elementary Portuguese (3 each). Three hours a week, plus laboratory. Fall and spring. Clark, staff. Attention is called to Portuguese 14, 15, designed for advanced students who have fulfilled the requirements in another foreign language.

1-2 Intensive Elementary Portuguese (6). This 1-2 course covers the material of the 1-2 sequence in a single semester. Six hours a week, including one hour of laboratory. Students who place into Portuguese 1 or 2 on the basis of two or more years of high school Portuguese may NOT enroll in the course. Fall. Staff.

3 Intermediate Portuguese (3). Three hours a week, plus laboratory. Fall. Clark, staff.

4 Intermediate Portuguese (3). Three hours a week, plus laboratory. Spring. Clark, staff.

3-4 Intensive Intermediate Portuguese (6). Prerequisite, Portuguese 2 or 1-2. The 3-4 course is a continuation of the 1-2 sequence. Six hours a week, including one hour of laboratory. Portuguese 3-4 will be open only to those students who place into Portuguese 3 or have already taken Portuguese 1-2 or Portuguese 2.

14, 15 Beginning Course for Advanced Students (3 each). A course in Brazilian Portuguese for students who have already fulfilled their requirement in another foreign language. Introduction to spoken language, followed by readings from representative modern Brazilian authors. Three hours a week. Fall and spring. Clark, staff.

35 Modern Brazilian Literature in English Translation (3). See "Courses in English Translation."

40 Portuguese and Brazilian Fiction in Translation (3). See "Courses in English Translation."

51 Composition and Conversation (3). Prerequisite, Portuguese 4 or 15, or equivalent. Designed to provide basic conversation and fundamentals of composition in Portuguese. Fall. Clark, Rector, staff.

53 Luso-Brazilian Civilization (3). Prerequisite, Portuguese 4 or 15, or equivalent. A general introduction to the history and culture of Luso-Brazilian civilization, with basic readings in Portuguese, lectures, slides, etc. Spring. Clark, Rector, staff.

95 Special Topics or Readings in Portuguese (3). A tutorial for advanced students in Portuguese on a topic agreed upon by the student and a member of the faculty. Any semester. Staff.

96 Undergraduate Seminar in Portuguese Literature (3). A seminar on a previously announced subject. Any semester. Staff.

97 Honors Thesis (3). Required of all students reading for honors. Preparation of an essay under the direction of a member of the faculty. Topic to be approved by thesis director in consultation with honors adviser. Any semester. Staff.

101 Survey of Portuguese Literature I (3). Prerequisite, Portuguese 4, 15, or equivalent. An introduction to Portuguese literature from its origins through the eighteenth century. Fall, alternate years. Rector.

102 Survey of Portuguese Literature II (3). Prerequisite, Portuguese 4, 15, or equivalent. A survey of Portuguese literature of the nineteenth and twentieth centuries. Spring, alternate years. Rector.

103 Survey of Brazilian Literature I (3). Prerequisite, Portuguese 4, 15, or equivalent. A survey of Brazilian literature of the colonial period and nineteenth century. Fall, alternate years. Clark.

104 Survey of Brazilian Literature II (3). Prerequisite, Portuguese 4, 15, or equivalent. Study of major writers of twentieth-century Brazilian literature. Spring, alternate years. Clark.

126 History of the Portuguese Language (3). Prerequisite, Portuguese 15 or equivalent or permission of instructor. Survey of the history of Portuguese with special stress on the characteristics of Brazilian Portuguese and the factors underlying them. On demand. Rector.

135 Brazilian Drama (3). Prerequisites, Portuguese 15 or equivalent, or permission of instructor. A study of representative Brazilian plays of the twentieth century with a review of the development of the theatre in Brazil. Fall, alternate years. Clark.

Rumanian

Course Descriptions


Spanish

Students interested in a major in Spanish should consult the Spanish language adviser in 238 Dey Hall. Students who plan to teach in public schools should see "School of Education."

The upper college requirement for a major in Spanish is eight Spanish courses to include: Spanish 50 and

- At least one of Spanish 52, 53, 54;
- At least two of Spanish 71, 72, 73;
- At least one of Spanish 61, 103, 126, 145, 146.

The remaining courses (at least one of which must be in Literature, preferably, but not necessarily, in the area not covered by the two survey courses) may be selected from the three lists above or from Spanish 80, 81, 82, 85, 86, 87, 95, 96, 110, 111, 113, 114, 117, 120, 135, 150. At least one of the eight courses must be numbered in the 100s.
Spanish American Studies

Students may choose a program leading to a B.A. in Spanish with emphasis on Spanish American civilization and culture. The requirements for this degree are as follows:

A. General College: twenty full semester courses. Portuguese required as a second modern language.

B. Upper College: a minimum of twenty full semester courses must be selected with the following distribution:

1. Eight courses in Spanish, four of which must be chosen from Spanish 53, 54, 61, 73, 81, 87, 113, 114, 120.

2. Five to seven courses in the social sciences to be drawn from the following areas: Anthropology, Economics, Geography, Political Science, and History. Political Science 56 (Contemporary Latin American Politics) and History 24-25 (Latin American History) are required.

3. Five to seven courses in allied electives, including two courses in Portuguese above the level of Portuguese 4 or 15.

UNC Year-at-Seville

The University sponsors an academic year, semester, or summer of study in Seville, Spain, in cooperation with the Universidad de Sevilla and other host institutions. Students from UNC-Chapel Hill and other institutions may earn up to thirty semester hours of undergraduate credit under the supervision of the Department of Romance Languages. The program is open to qualified undergraduates regardless of academic major and is not restricted to third-year students. Address inquiries to the UNC Year-at-Seville, 127 Dey Hall.

Course Descriptions

1, 2 Elementary Spanish (4 each). The 1-2 sequence introduces the essential elements of Spanish structure and vocabulary and aspects of Spanish culture. Aural comprehension, speaking, reading, and writing are stressed in that order. Four hours a week, plus laboratory for two semesters. Staff.

1-2 Intensive Elementary Spanish (6). The 1-2 course covers the material of the 1-2 sequence in a single semester. Six hours a week, including one hour of supervised laboratory. Students who place into Spanish 1 or 2 in the course will be enrolled in this course. Adj. Fall, Staff.

1-2, 3-4 Intermediate Spanish (6). Prerequisite, Spanish 1-2. The 3-4 course is a continuation of the 1-2 sequence. Six hours a week, including one hour of supervised laboratory. Spanish 3-4 will be open only to those students who place into Spanish 3 or have already taken Spanish 1-2 or Spanish E. Spring, Staff.

3, 4 Intermediate Spanish (3 each). The two-semester sequence of Spanish 3, 4 is designed to increase reading and writing skills. An introduction to representative literary works and study of the finer points of Spanish structure are included. Aural comprehension and speaking skills are also stressed. Staff.

14, 15 Beginning Spanish for Advanced Students (3 each). A beginning sequence for students with at least four semesters of another foreign language. Emphasis in the first semester is on grammar; in the second on reading, writing, and speaking. Use of the language laboratory required. Completion of the sequence should enable one to understand lectures in literature classes. Fall and spring. Staff.

20 Language through Culture and Literature (3). Prerequisite, Spanish 4 or equivalent. A fifth-semester course with emphasis on further development and refinement of speaking, listening, reading, and writing skills, including a review of grammar through the study of literary and cultural texts. Fall, spring. Staff.

21 Introduction to Spanish and Spanish American Literature (3). Prerequisite, Spanish 4 or equivalent. Any semester. Native speakers need permission of instructor. Staff.

23 Conversation I (3). Prerequisite, Spanish 4 or equivalent. Fall and spring. Development of oral proficiency while increasing awareness of Hispanic culture. Emphasis is placed on building vocabulary and addressing problematic grammatical structures. Not open to native speakers. Fall, spring. Staff.

25 Spanish for Business (3). Prerequisite, Spanish 4 or equivalent. A fifth-semester course in which students will acquire and practice grammar, vocabulary, and discourse strategies of the business world. Students will develop their geographic literacy and their cross-cultural awareness. Fall, spring. Staff.

35 Contemporary Spanish American Prose Fiction in Translation (3). See "Courses in English Translation."

40 Masterpieces of Spanish Literature in Translation (3). See "Courses in English Translation."

46 Cervantes in English Translation (3). See "Courses in English Translation."

50 Advanced Grammar and Composition (3). Prerequisite, Spanish 21 or 23 or equivalent. Designed to improve writing accuracy with common points of Spanish grammar. The skill is further developed through exercises and compositions involving process- and task-oriented approaches to writing. Fall, spring. Staff.

51 Conversation II (3). Prerequisite, Spanish 21 or 23 or equivalent. Designed to expand speaking skills through conversational activities, discussion of authentic readings, and associated vocabulary building. Emphasis also on continued development of writing skills. Not open to native students. Fall, spring. Staff.

52 Spanish Civilization (3). Prerequisite, Spanish 21, 22, 23, or equivalent. Spain, Spaniards, and Spanish life with special emphasis on nonliterary aspects. Spring. Staff.

53 Spanish American Civilization (3). An introduction to the culture of Mexico, Central America, and the Andean countries. Prerequisite, Spanish 21, 22, 23, or equivalent. Fall, alternate years. Mejías-López, Perelmutter, Rivero-Potter, Salgado.

54 Spanish American Civilization (3). An introduction to the culture of the River Plate region and the Caribbean countries. Prerequisite, Spanish 21, 22, 23, or equivalent. Fall or Spring, alternate years. Mejías-López, Perelmutter, Rivero-Potter, Salgado.

61 Advanced Conversation and Composition (3). Prerequisite, Spanish 50 or equivalent. Designed to refine students' speaking skills through discussion of contemporary topics of Spain and Spanish America based on current periodicals, literature, etc. Includes significant writing component and some review of grammar. Fall, spring. Staff.

71 Survey of Spanish Literature to 1700 (3). Prerequisite, Spanish 21 or equivalent. Fall or spring. Bandera, Binotti, Clivei, Dominguez.

72 Survey of Spanish Literature since 1700 (3). Prerequisite, Spanish 21 or equivalent. Fall or spring. Casado, Collins, Polo de Bernabé.

73 Survey of Spanish American Literature (3). Prerequisite, Spanish 21 or equivalent. Fall or spring. Mejías-López, Perelmutter, Rivero-Potter, Salgado.

80 Masterpieces of Spanish Drama (3). Prerequisite, Spanish 71, 72, 73, or equivalent. Fall, alternate years. Polo de Bernabé.
126 History of the Spanish Language (LING 154) (3). Prerequisite, Spanish 71, 72, or 73. The formation of Castilian and other peninsular dialects and languages, beginning with Vulgar Latin and including Visigothic and Arabic influence. Expansion to the New World. Spring. Binotti, Domínguez, King.

135 Modern Spanish Drama (3). Prerequisites, Spanish 71, 72, or 73. A study of plays by principal Spanish dramatists of the twentieth century. Fall, alternate years. Polo de Bernabé.

145 Spanish Phonetics and Phonology (LING 155) (3). Prerequisite, Spanish 51 or equivalent. The study of sounds as a system in American and Peninsular Spanish. Attention to practical phonetics according to individual needs. Fall or spring. Binotti, King.

146 Structure of Modern Spanish (LING 156) (3). Prerequisite, Spanish 50 or equivalent. Introduction to theories of grammar with a detailed analysis of the semantic and syntactic structure of contemporary Spanish. Attention also given to the application of linguistic theory to the teaching of Spanish. Fall. King.


Romance Languages Course Descriptions

29 Literature in the Romance Languages (3). An introduction to literature in the Romance languages. All readings in English translation. Focus and readings will vary. Fall, spring. Staff.

94A Interdisciplinary Seminar in Renaissance Studies (HIST 94D, CMPL 94A) (3). See History 94D for description.

96 Seminar in Romance Languages (3). Fall or spring. Staff. Capstone course.

104 Violence and Religion in Literature from Epic to Novel (CMPL 104, PWAD 190) (3). Prerequisite, permission of instructor. A study of the sacred character of epic violence and its historical decline through a process of religious desacralization associated with the emergence of the modern novel. Spring, alternate years. Bandera.

170 Romance Sociolinguistics (3). Study of language in its social context; language variation, multilingualism, social dialects, the role of culture, language, and sex. Includes individual work on a specific language. Spring. King.

Courses in English Translation

The courses listed below may not be taken for credit toward the foreign language requirement or for credit in the French, Italian, Portuguese, or Spanish major programs.

French

40 French Theatre in Translation (3). Representative dramatic masterpieces from the seventeenth to the twentieth century. Fall. Vogler.


43 French Women Writers in English Translation (WMST 43) (3). Works by French women authors read in translation along with pertinent theoretical texts. Course content will vary with each semester incorporating texts from different periods and genres. Fall. Burns, staff.

Italian

41 Italian Renaissance Literature in Translation (3). A study of the major authors of the Italian Renaissance with special attention to Petrarch, Boccaccio, Machiavelli, Castiglione, Ariosto, and Tasso. Fall. Staff.

42 Modern Italian Literature in Translation (3). A study of the major prose writers of modern Italian literature with special attention given to Manzoni, Verga, Pirandello, Svevo, Moravia, Lampedusa, and other contemporary novelists. Spring. Staff.

Portuguese

35 Modern Brazilian Literature in English Translation (3). This course is devoted to the study of Brazilian culture through representative works of nineteenth- and twentieth-century literature. Fall and spring. Clark.

40 Portuguese and Brazilian Fiction in Translation (3). The study of selected literary works by major writers from Portugal, Brazil, and the former Portuguese colonies in Africa. Fall and spring. Clark, Rector, staff.

Spanish


40 Masterpieces of Spanish Literature in Translation (3). Representative Spanish authors from the Middle Ages to the present. Fall and spring. Domínguez, Binotti, staff.

46 Cervantes in English Translation (3). Study and discussion of Don Quixote with consideration of the Exemplary Novels and the background of Renaissance prose. Fall and spring. Staff.

Arabic

Arabic 101, 102, 141, and 142 are accepted as satisfying General College requirements for foreign language.

95 Special Readings (3). Prerequisites, Arabic 141, 142. Special readings in Arabic.

101, 102 Elementary Arabic I/II (3). Introduction to modern written Arabic with emphasis on the basic grammatical structure. Fall and spring. Amer, Cortès.

141, 142 Readings in Arabic I/II (3). Classical and/or modern readings in Arabic, according to the student’s interest and competence. Fall. Cortès.

Curriculum in Russian and East European Area Studies

LAURA A. JANDA, Director
Nicolae Harsanyi, Administrative Director

Professors

Assistant Professors
Carolyn Connor, Robert Greenberg, Barbara Hicks, Katherine Jolluck, Eric Mlyn, Christopher Putney, Lucila Vargas, Ivana Vuletic.

Lecturer
Eleonora Magomedova.

Professors Emeriti
Josef Anderie, Samuel Baron, Vasa Mihailovich.

The Curriculum in Russian and East European Studies offers the student an opportunity to become familiar with a language and the history, culture, and institutions of the Russian and East European area. The program draws on faculty and courses of six different departments and, through an interdisciplinary approach, seeks to provide both a range of perspectives and a unified understanding of the region and its peoples. It also offers a variety of related extracurricular activities (lectures, films, exhibitions).

The curriculum is administered by the Center for Slavic, Eurasian, and East European Studies which, along with its counterpart at Duke University, is a federally supported National Resource Center established by the U.S. Department of Education under a Title VI grant.

The program is coordinated by a director, assisted by an administrative director, and is intended to prepare undergraduate students for careers in the foreign service or other branches of the federal government, in journalism, library science, high school teaching, etc., as well as for graduate work in the various disciplines.

Travel to Russia and Eastern Europe is a desirable part of student training. For travel opportunities see the section on Study Abroad, under the Department of Slavic Languages and Literatures.

Bachelor of Arts with a Major in Russian and East European Area Studies

General College:

First and Second Years: All General College requirements must be met: Four semester courses in Russian or another East European language, and History 30 and 31 are required. Students entering the program who have not met the requirements will be expected to make them up in their junior and senior years.

Third and Fourth Years: The major in Russian and East European Studies consists of an interdisciplinary core of seven courses.

Core Requirements: Twenty-one Hours
A. Slavic 30, an introductory survey course, and Slavic 60, an interdisciplinary seminar
B. From one to three courses from each of the following groups:
   1. Slavic languages and literatures
2. Russian and East European history

Honors: Majors whose overall GPA is at least 3.2 and whose GPA in the major field is at least 3.5 are eligible to become candidates for graduation with honors. Candidates will enroll in Slavic 97-98 (Honors Reading) and defend an honors thesis.

Department of Slavic Languages and Literatures

MADELINE G. LEVINE, Chair

Professors
Paul Debreceny, Laura Janda, Madeline G. Levine.

Associate Professors
Lawrence Feinberg, Beth Holmgren.

Assistant Professors
Robert Greenberg, Christopher Putney, Ivana Vuletic.

Lecturer
Eleonora Magomedova.

Professor Emeritus
Vasa Mihailovitch.

The Department of Slavic Languages and Literatures offers courses leading to the degrees of Bachelor of Arts, Master of Arts, and Doctor of Philosophy. The undergraduate programs leading to the B.A. in Slavic Languages and Literatures are made up of a series of courses in languages, literature, and linguistics that give the student a knowledge of spoken and written Russian and of Russian literature or Slavic and East European linguistics. Courses in Polish, Serbo-Croatian, Czech, Slovak, Bulgarian, Macedonian, and related Balkan languages are offered within the department.

The department offers two undergraduate major programs leading to the B.A. in Slavic Languages and Literatures: a major in Russian Language and Literature and a major in Slavic and East European Linguistics. Both major options provide preparatory training that will be useful in government employment, internationally oriented business, library science, journalism, and teaching, among others, as well as for graduate study in a range of humanistic and social science disciplines.

Majors and Minors in Slavic Languages and Literatures

The Department of Slavic Languages and Literatures offers instruction in many of the languages and literatures of Eastern Europe and the former Soviet Union (a vast multicultural region of enormous linguistic and cultural richness and complexity). For historical reasons, Russian remains the most important linguistic key to understanding, in its totality, the cultural and linguistic heritage of many of the peoples of the former USSR and Eastern Europe. More books are published in Russian than in any other language, including English, and Russian is second only to English as the language of scientific publications. The Russian language is also the vehicle of one of the world’s great literatures and provides an essential gateway for the study of the many other languages, literatures, and cultures of the former USSR and East Bloc.

Because Russian is so important to the study of this region, five semesters of Russian (Russian 1, 2, 3, 4, 21) are prerequisite for majors. When demand permits, intensive Russian 1-2 and 3-4 can be taken consecutively in fall and spring semesters to attain the equivalent of two years’ instruction in one academic year. Please note that courses for a major may not be taken pass/fail.

Major in Russian Language and Literature

The five-course core gives students basic proficiency in Russian plus an introductory course in Russian literature (RUSS 50):

RUSS 22, RUSS 31, RUSS 32, RUSS 111, RUSS 50.

Plus

Three more courses may be selected from among literature and Russian language courses offered by the department, to give students a chance to explore more specific issues in Russian language and literature. At least two of these courses should be literature, rather than advanced language, courses and only one of these courses may be below the 100-level.

Students who participate in the Study Abroad program in Russia can earn some of the credit for the major during their Russian stay.

Major in Slavic and East European Linguistics

The four-course core gives students basic proficiency in Russian, plus an introductory-level linguistics course on the structure of Russian (RUSS 101):

RUSS 22, RUSS 31, RUSS 32, RUSS 101.

Plus

Two semesters of another language of East Central Europe, the Balkans, or a territory of the former USSR will provide the basis to allow students to make linguistic comparisons among languages of the region.

Plus

Two more courses at the 100-level selected from among the courses offered by the department will allow students to pursue further, more specific issues relevant to their major. At least one of these courses should be in Slavic linguistics.

Plus

We ask that majors in Slavic and East European Linguistics use the following course to fulfill their Social Science Perspective requirement in order to gain a basic understanding of the field of linguistics as a whole: LING 30.
Minor in Russian Language

Five courses have been selected for this minor program to enable students to attain the highest language proficiency possible at the undergraduate level: RUSS 21, RUSS 22, RUSS 31, RUSS 32, RUSS 111. Students who participate in the Study Abroad program in Russia can earn some of the credit for this minor during their Russian stay.

Minor in Russian and East European Literature in Translation

Five courses in literature may be selected from among those offered by the department. At least three of these courses should be at the 100-level.

More Information for Majors and Minors

Concentrators are encouraged to go beyond the required minimum of courses in order to achieve the strongest possible background in the discipline. Students should consult early and often with the undergraduate adviser, Christopher Putney, (Dey Hall, Room 312, 962-7548) and with other faculty who can assist in tailoring course choices to interests and career plans.

Special Academic Opportunities

Honors

All majors with the appropriate grade point average are eligible to graduate with honors, and should ask the undergraduate adviser to enroll them in Russian 97-98 and to provide information about writing an honors thesis.

Study Abroad

UNC-Chapel Hill has a summer and academic year exchange program with the University of Saratov, one of Russia’s most prestigious research universities. The ancient city of Saratov is located on the Volga River, just an overnight trainride away from Moscow. Saratov is also Chapel Hill’s sister city. Participants in the study abroad program will receive intensive Russian language training, including conversation, composition, and grammar, with emphasis on everyday situations and use. Russian literature and area studies subjects will also be covered to facilitate the student’s complete immersion in Russian culture and language, in addition to excursions and trips to museums and theaters in the city. Students may choose to spend six weeks over the summer or an academic semester in Saratov. All programs carry university credit.

Beginning in fall 1998 UNC-Chapel Hill students will also be able to participate in a one-semester study abroad program in Prague, capital of the Czech Republic.

UNC-Chapel Hill is an affiliated institution in the Council for International Educational Exchange, which has a program for Russian language study at the University of St. Petersburg. The CIEE Program offers summer, single-semester, and academic-year study opportunities.

Study abroad is an enriching educational experience that is highly recommended, although not required, for the B.A. degree.

Opportunities for Graduate Study

A major in the department provides preparation for a number of advanced study programs, including Slavic and East European languages and literatures, comparative literature, linguistics, history, law, international business and management, international relations, library science, and professional translation.

Career Opportunities

Courses about Central and Eastern Europe make up an important part of a liberal education and a major in the department can provide excellent preparation for many career opportunities, particularly when the major is combined with courses in business, economics, political science, journalism, and other fields. The Department of Slavic Languages and Literatures is one of the very few academic departments in the United States that offers a wide range of critical and/or less commonly taught languages of Eastern Europe and the former USSR. People who know these languages are in particularly high demand in business and government careers.

Course Descriptions

Bulgarian

101, 102 Elementary Bulgarian (3 each). Pronunciation, structure of language, and reading in modern Bulgarian. Fall and spring. Greenberg.

103, 104 Intermediate Bulgarian (3 each). Prerequisite, Bulgarian 102. Continuation of the proficiency-based instruction begun in Elementary Bulgarian. Fall and spring. Greenberg.

105, 106 Advanced Bulgarian (3 each). Prerequisite, Bulgarian 104 or permission of instructor. Advanced readings and discussion in Bulgarian in humanities and social science topics. Greenberg.

111 Bulgarian Literature (3). Introduction to Bulgarian literature in English translation. Some readings in Bulgarian for students who can read the language. Staff.

Czech


103, 104 Intermediate Czech (3 each). Prerequisite, Czech 102 or permission of instructor. Continuation of proficiency-based instruction begun in Elementary Czech. Fall and spring. Janda.

105 Advanced Czech (3). Prerequisite, Czech 104 or permission of instructor. Advanced readings and discussion in Czech in humanities and social science topics. Fall. Janda.

106 Advanced Czech (3). Prerequisite, Czech 105 or permission of instructor. Advanced readings and discussion in Czech in humanities and social science topics. Spring. Janda.

111 Czech Literature (3). Introduction to Czech literature in English translation. Some readings in Czech for students who can read the language. Staff.

Macedonian

101, 102 Elementary Macedonian (3 each). Pronunciation, structure of language, and reading in modern Macedonian. Fall and spring. Staff.

103 , 104 Intermediate Macedonian (3 each). Prerequisite, Macedonian 102. Continuation of the proficiency-based instruction begun in Elementary Macedonian. Fall and spring. Staff.
105, 106 Advanced Macedonian (3 each). Prerequisite, Macedonian 104 or permission of instructor. Advanced readings and discussion in Macedonian in humanities and social science topics. Fall and spring. Staff.

**Polish**

100 Intensive Elementary Polish (6). Pronunciation, structure of language, and reading in modern Polish. Equivalent to a full-year course for advanced undergraduate and graduate students. Summer. Staff.


103, 104 Intermediate Polish (3 each). Prerequisites, Polish 101-102 or permission of instructor. Continuation of the proficiency-based instruction in Elementary Polish. Fall and spring. Holmgren, Levine.

105, 106 Advanced Polish (3 each). Prerequisite, Polish 104 or permission of instructor. Advanced readings and discussion in Polish on humanities and social science topics. Fall and spring. Holmgren, Levine.

111 Polish Literature (3). Introduction to Polish literature in English translation, focusing on nineteenth- and twentieth-century writers. Some readings in Polish for students who can read the language. Holmgren, Levine. BA-level aesthetic perspective.

**Russian Language Courses**

1, 2 Elementary Russian (4). Introductory courses designed to lay foundation of grammar and to convey basic reading and pronunciation skills. Three hours a week, plus recitation section, through two semesters. Fall and spring. Staff.

1-2 Intensive Elementary Russian (8). Introductory course designed to lay foundation of grammar and to convey basic reading and pronunciation skills. Equivalent to a full-year course of elementary Russian. Attendance at recitation sessions is required. Five one-hour lecture periods, plus three one-hour recitations per week. Fall and summer. Staff.

3, 4 Intermediate Russian (3). Prerequisite, Russian 1-2 or equivalent. Grammar-translation work with increasing proportions of free reading and oral work. Three hours a week through two semesters. Fall and spring. Staff.

3-4 Intensive Intermediate Russian (6). Prerequisite, Russian 1-2 or equivalent. Intensive course designed to improve knowledge of grammar, reading, and oral skills. Develops conversational skills in a variety of situations and subjects. Russian used, except for a minimum of linguistic explanations or comment. Attendance at recitation sessions is required. Five one-hour lecture periods, plus three one-hour recitations per week. Spring and summer. Staff.

11 Intermediate Russian Conversation (2). Prerequisite, Russian 2 (for Russian 11), or its equivalent and concurrent registration in Russian 3. Supplements the grammar presentations in Intermediate Russian (Russian 34). Basic conversational practice on topics relevant to Russia today. Fall, spring.

12 Intermediate Russian Conversation (2). Prerequisite, Russian 3 and 11 or their equivalents and concurrent registration in Russian 4. Continuation of Russian 11.

21, 22 Russian Conversation (3). Prerequisite, Russian 4 or equivalent. Designed to develop conversational skills in a variety of situations and subjects. Russian used, except for a minimum of linguistic explanations or comment. Fall and spring. Staff.

31, 32 Advanced Russian Grammar (3). Prerequisite, Russian 4. A comprehensive review of Russian grammar on an advanced level, emphasizing reading and writing skills. Fall and spring.

33 Advanced Russian Grammar (6). Prerequisite, Russian 4 or equivalent. Intensive third-year course in conjugation, declension, root structure, prefixation and suffixation; modern usage. Equivalent to a full-year course. Exclusively in Russian. Summer. Staff.

**Literature Courses in Russian**

44 Selected Readings in Russian (Var.). Readings in Russian literature or linguistics on topics not usually covered in course work. Fall and spring. Staff.

50 Introduction to Russian Literature (3). Prerequisite, Russian 4 or equivalent. Reading, discussion of selected authors in Russian aimed at improving reading skill and preparing the student for higher level work in Russian literature. Spring. Debreczeny, Vuketic. GC aesthetic/literature perspective. BA-level aesthetic perspective.

97, 98 Honors Reading Course (3 each). Researching and writing of a thesis on an agreed-upon topic not covered by scheduled courses, under the direction of departmental advisers. Fall and spring.

**Literature in English Translation**

70 Russian Literature of the Nineteenth Century (3). Introduction to Russian prose fiction of the nineteenth century with particular consideration of selected writings of Pushkin, Gogol, Turgenev, Dostoevsky, and Tolstoy. Lectures and readings in English. Fall. Debreczeny, Levine, Putney. GC aesthetic/literature perspective.

72 Russian Literature from Chekhov to the Revolution (3). Literary situations and authors of 1880-1917, with emphasis on Chekhov and the Symbolists. Lectures and readings in English; some readings in Russian for majors. Spring. Magomedova, Holmgren.

73 Russian Culture and Society: 1890-1917 (3). Examines the extraordinary diversity of turn-of-the-century Russian culture (1890s-1917); the proliferation of visual and performance arts; the rise of popular culture; new artistic explorations of gender and sexuality. Fall. Debreczeny, Holmgren. BA-level aesthetic perspective.

74 Russian Literature after 1917 (3). Russian writers and literary problems from the Revolution to the present. Lectures and readings in English; selected readings in Russian for majors. Spring. Holmgren. GC aesthetic/literature perspective.

**Capstone Course**

94A Russians View America (3). Exploration of Russian responses to the United States from the American Revolutionary War through the end of the Cold War. Course materials include fiction and nonfiction readings as well as films. Spring. Staff.

**Advanced Courses for Undergraduates and Graduate Students**

**Courses Open to Non-Russian Majors**

(Russian not required)

125 Topics in Russian Literature (3). Material not currently covered in any course. The specific topic will be announced in advance. Staff.

164 Dostoevsky (3). Study of major works of Dostoevsky and a survey of contemporary authors and literary trends relevant to his creative career. Readings in Russian for majors, in English for nonmajors. Fall. Debreczeny, Levine. BA-level aesthetic perspective.

165 Chekhov (3). Study of major works of Chekhov and survey of contemporary authors and literary trends relevant to his creative career. Readings in Russian for majors, in English for nonmajors. Spring. Debreczeny, Holmgren. B.A. aesthetic perspective.

171 Gogol (3). Study of major works of N. V. Gogol and a survey of contemporary authors and literary trends relevant to his creative career. Lectures and seminar discussions. Readings in Russian for majors, in English for nonmajors. Spring. Debreczeny, Putney. BA aesthetic perspective.

179 Tolstoy (3). Study of the major works of Tolstoy and a survey of contemporary authors and literary trends relevant to his creative career. Readings in Russian for majors, in English for nonmajors. Fall. Debreczeny, Levine. BA-level aesthetic perspective.

186 Contemporary Russian Women's Writing (WMST 180) (3). A study of Russian women’s writing after World War II, including both fictional and publicistic works analyzed in their socio-political context. Serves as an introduction to Russian women’s studies. Holmgren. BA-level aesthetic perspective.

187 Post-Stalin Soviet Literature (3). This course examines the major literary trends of the post-Stalin period in Soviet literature. Spring. Holmgren.

190, 191 Teaching Methods and Materials (1). For prospective teachers of Russian. Required of all teaching assistants. Fall and spring. Magomedova.

193 Russian Short Story (3). An introduction to the Russian short story. The readings, in English for nonmajors and in Russian for majors, include works from the seventeenth century to the present. Fall and spring. Debreczeny. BA-level aesthetic perspective.

Courses Requiring Reading Knowledge of Russian

101 The Structure of Modern Russian (3). Prerequisite, Russian 31 or equivalent. Synchronic analysis of contemporary standard Russian phonology, morphology, and morphophonemics. Spring. Feinberg, Greenberg, Janda.

111, 112 Advanced Russian Conversation and Composition (3). Prerequisite, Russian 22 or 32, or permission of instructor. Designed to develop conversational and writing skills in a variety of situations and subjects. Russian used, except for a minimum of linguistic explanations or comments. Fall and spring. Magomedova.

113 Advanced Conversation and Composition (6). Prerequisite, Russian 50 or equivalent. Fourth-year course designed to develop conversational and writing skills in a variety of situations and subjects. Exclusively in Russian. Equivalent to a full-year course, for advanced undergraduate and graduate students. Summer. Magomedova and staff.

121, 122 Advanced Russian Practicum (3). Prerequisite, Russian 112 or permission of instructor. This course is for undergraduates who have achieved a high level of oral proficiency. Course materials include newspapers, journals, video news, film, and contemporary literary texts. Taught entirely in Russian. Fall, spring. Magomedova or staff.

162 Russian Poetry of the Nineteenth Century (3). Readings and lecture on nineteenth-century Russian poetry. Fall. Debreczeny.

Serbo-Croatian


103, 104 Intermediate Serbo-Croatian (3 each). Continuation of the proficiency-based instruction begun in Elementary Serbo-Croatian. Fall and spring. Greenberg, Vuletic.

105, 106 Advanced Serbo-Croatian (3 each). Prerequisite, Serbian 104 or permission of instructor. Advanced readings and discussion in Serbo-Croatian on humanities and social science topics. Fall and spring. Greenberg, Vuletic.

111 Introduction to Serbian and Croatian Literature (3). Introduction to Serbian and Croatian literature with an emphasis on nineteenth- and twentieth-century prose. Vuletic.

Slavic

293 Literature in Eastern Europe (3). An introduction to the literatures of Eastern Europe, including consideration of political and social influences on literary creation within different cultural traditions. All readings in English translation. Fall and spring. Levine, Debreczeny, Holmgren. GC aesthetic/literature perspective.

30 Introduction to Slavic Civilizations: Peasants, Popes, and Party Hacks (3). Introduction to the essentials of Slavic cultures, including religion, literature, history, art, cinema, folklore, geography, and music. Course materials include films, slides, and recordings. GC non-western/comparative perspective. Fall. Putney.

44 Directed Readings in a Slavic Language (Var.). Prerequisite, permission of the instructor. Directed readings in a Slavic language other than Russian on topics in literature and linguistics not normally covered in scheduled courses. Fall and spring. Staff.

48 Childhood and Adolescence in Slavic Literature (3). Childhood and adolescence as portrayed in both fictional and autobiographical form by nineteenth- and twentieth-century Russian, Polish, Czech, and other East European writers, including Tolstoy, Dostoevsky, Nabokov, I. B. Singer, Schulz, Miloss. Spring. Levine, Holmgren. GC aesthetic/literature perspective.

60 Topics in Slavic Civilization (HIST 60) (3). A core course for those majoring in Russian and East European Studies, but open to all students. Staff.

75 Language and Nationalism (Linguistics 75) (3). Course focuses on language, identity and nationalism in contemporary societies. Topics: minority language controversies in the U.S. and Western Europe; ethnic nationalism in Yugoslavia and the former Soviet Union. Fall, spring. Greenberg. Cultural diversity perspective.

94A Ideology and Aesthetics: Marxism and Literature (GERM 94A) (3). See German 94A for description.

97, 98 Honors Reading Course (3 each). Research and writing of an honors thesis. For students majoring in Russian and East European studies. Fall and spring. Staff.

105 Introduction to Slavic Linguistics (3). The phonological history of Slavic languages from the late Indoeuropean to the split of the common Slavic linguistic unity. Greenberg, Feinberg, Janda.

107 Advanced Structure of a South Slavic Language (LING 107) (3). Study of grammar and readings in selected languages. Choice of language based on student interest: Slovenian, Serbo-Croatian, Macedonian, Bulgarian. Fall and spring. Greenberg, Janda.


109 Cognitive Linguistics (Ling 109) (3). Development of and present state of research in cognitive linguistics. Readings discuss various language phenomena and are drawn from linguistics, psychology, philosophy, artificial intelligence, and literary analysis of metaphor. Fall, spring. Janda.

112 South Slavic Literature (3). Introduction to literatures of the South Slavic peoples (chiefly Serbian, Croatian, and Bulgarian) with some consideration of their relations to West European literatures. Vuletic.

125 Topics in Slavic Literature (3). Comparative study of topics in non-Russian Slavic literatures and culture not presently covered in any course. Specific topics vary and will be announced in advance. Staff.

144 Medieval Slavic Culture (RELI 144) (3). Survey of medieval Slavic culture, beginning with Christianization in the ninth and tenth centuries. Themes include Byzantine missions, the replacement of paganism with Christianity, the oral traditions, and Slavic literary relations. Readings in English for non-Slavic concentrators. Putney. BA-level non-western/comparative perspective.
165 Literature of Atrocity: The Gulag and the Holocaust in Russia and Eastern Europe (PWAD 165) (3). Literary representation (in fiction, poetry, memoirs, and other genres) of the mass annihilation and terror in Eastern Europe and the former Soviet Union under the Nazi and Communist regimes. Spring. Levine. BA-level aesthetic perspective.

167 Ethnic and Linguistic Conflicts in Former Yugoslavia (PWAD 167) (3). This course explores the role of linguistic controversies in the polarization of ethnic relations in former Yugoslavia. Topics: the Yugoslav idea, language and nationalism; ethnic tension; the unleashing of ethnic conflicts. Fall, spring. Greenberg.

169 Coming to America: The Slavic Immigrant Experience in Literature (3). Fictional and autobiographical expressions of the Slavic and East European immigrant experience in the twentieth century. Readings include Russian, Polish, Jewish, and Czech authors from early 1900s to present. Spring. Holmgren, Levine. BA-level aesthetic perspective. Cultural diversity requirement.

Department of Sociology

ARNE L. KALLEBERG, Chair

Professors

Associate Professors
M. Richard Cramer, Kathleen M. Harris, James A. Wiggins.

Assistant Professors

Fixed-term Faculty
Professors: Peter Blau, Duncan MacRae Jr.
Associate Professor: Angelika von Wahl

Lecturers
Norman Peart, Barbara Stenross.

Adjunct Professors
Craig Calhoun, Gail Henderson, James Johnson, John D. Stephens.

Professors Emeriti
Amos Hawley, Henry Landsberger, Gerhard Lenski, Everett Wilson, Robert Wilson.

The undergraduate major program in sociology is designed to provide an understanding of human societies for those desiring a liberal arts education, as well as those preparing for graduate study. With the assistance of a departmental adviser, the student may elect a course of study to provide a foundation for a variety of occupations. To assist students in formulating their undergraduate pro-

grams in sociology, the department offers a supplementary catalog that contains more information on the content instructors intend to cover in a given semester. This may be obtained in the department office one week before the start of registration for the fall and spring.

The departmental honors program, summer research opportunities, courses in other departments of related interest, career opportunities, research and teaching interests of faculty, and the Undergraduate Sociology Club are described in the Handbook for Sociology Majors, which may be obtained in the department office. Special bulletin boards for undergraduates are maintained outside 159 Hamilton Hall.

Undergraduate Major:

Majors are required to take Sociology 10, 11, or 12 as an introductory course. If possible, this should be taken by the end of the sophomore year. Each of these courses can be used to satisfy a General College perspective requirement.

The major itself will consist of eight additional sociology courses, which will normally consist of the following:

- three specific required courses, Sociology 50 and 51-52 (a two-course sequence); these should be taken, if possible, during the junior year.
- three 100-level courses, and
- two other sociology courses, no more than one of which may be from among Sociology 10, 11, 12, and 20.

With special permission, one 90-level course may be accepted as a substitute for one of the 100-level courses. Any sociology course taken to satisfy a General College requirement may not be used as one of the eight courses in the major itself (e.g., if Sociology 50 is used for the General College Philosophical perspective, another sociology course must be taken to complete the eight-course major). Students must earn grades of C or better in at least eighteen hours in the major, as well as in the introductory course.

The department assigns formal advising responsibilities to certain members of its staff. Their names and office hours are posted on the department bulletin board for undergraduates. Students should feel free to discuss academic, career, or related matters with these advisors.

Honors in Sociology

Students with a grade average of B or better are encouraged to apply for admission to candidacy for a degree with honors. This should be done before preregistration in the spring semester of the junior year. The senior honors program emphasizes small-group discussions and independent research under the guidance of faculty members. The honors program aims to free the serious and qualified student from some of the restriction of the usual undergraduate course format, so as to maximize the opportunity for critical analysis and independent study. Graduation with honors requires a 3.2 average and completion of an honors thesis. Detailed information on the honors program can be obtained from the Department Honors Director, Professor Arne Kalleberg.
Independent Study Reading

Students desiring advanced or specialized work beyond existing course offerings or who wish to explore an area of sociological concern, but not within the traditional setting of the classroom, should consider taking Sociology 92, Independent Study and Reading. Variable credit can be obtained for this course. Permission of a faculty member and the director of undergraduate studies is required. In general, this course should be taken only by students with at least some prior work in sociology or a related social science. Application forms for this course can be obtained at the department office.

Unless specifically indicated, sociology courses do not have prerequisites. Undergraduates may register for courses 200 and above with the permission of the instructor.

In the list of courses below, "SS" refers to those satisfying the Social Science perspective requirement; "P," the Philosophical perspective requirement; "A/E," the Aesthetic perspective requirement; and "NW/C," the Non-Western/Comparative perspective requirement. "GC" indicates that the course is for General College perspectives. "BA" means that the course satisfies a junior-senior Arts and Sciences perspective, except for sociology majors.

Course Descriptions

10 American Society (3). Introduction to institutional sociology with special emphasis on the social organization and culture of the United States. The society as a whole and its different subgroups and institutional spheres are analyzed. Bearman, Simpson, Smith, Stenross, staff. [GC/SS]

11 Human Societies (3). Introduction to comparative sociology. The major types of society that have existed or now exist are analyzed, together with major patterns of social change. Bollen, Nielsen, staff. [GC/NW/C]

12 Social Interaction (3). The individual in society. An examination of how people conduct their interactions with others in different kinds of social relationships. Emphasis on the social psychological causes and consequences of such conduct. Kleinman, Wiggins, staff. [GC/SS]

15 Regional Sociology of the South (3). Description and analysis of social aspects of the American South. Emphasis is on recent development and its effects on institutions and culture. Reed, staff. [GC/SS]

20 Social Problems (3). A sociological analysis of aspects of contemporary social problems such as race relations, crime, mental illness, poverty, aging. Hartos, Oberschall, staff. [GC/SS]

21 Population Problems (3). Social and economic causes of population structure and change. Illustrations drawn from developing countries and the less developed regions and sections of the United States. Entwisle, Rindfuss, Udry, staff.

22 Black-White Relations in the United States (3). Examination of domination and subordination in general and in specific institutional areas (e.g., economy, polity). Causes of changes in the levels of inequality and stratification are also studied. Staff. [GC/SS]

23 Crime and Delinquency (3). The nature and extent of crime and delinquency; emphasis upon contemporary theories of their causation; examination of correctional programs. Staff. [GC/SS]

24 Sex and Gender in Society (WMST 24) (3). Examination of the social differentiation between men and women. Attention to the extent, causes, and consequences of sexual inequality, and to changes in sex roles and their impact on interpersonal relations. Kleinman, Rosenfeld, Udry, staff.

30 Family and Society (3). Comparative analysis of kinship systems and family relations. Courtship, marriage, and parent-child relations viewed within a life-cycle framework. Students may not receive credit for both this course and Sociology 125. Entwisle, Harris, Rindfuss, Udry, Uhlenberg, Wiggins, staff. [GC/SS]

31 Social Relations in the Workplace (3). Meaning and content of work in modern industrial society. Preparation for work; autonomy and control; inequality; consequences for health, safety, and family life. Aldrich, Kleinman, Simpson, Stenross, staff. [GC/SS]

33 Sociology of Politics (3). Patterns of participation in political institutions; public policy; conflict within and between communities and other interest groups; the nature of citizenship in modern society; politics and social change. Staff. [GC/SS]

34 Sociology of Sport (3). Sociological and social psychological analysis of sports organizations. Consideration of organizational structure and performance and relationships between sports organizations and other parts of society. Wiggins, staff.

50 Sociological Theory (3). Prerequisite, Sociology 10, 11, or 12. A study of theoretical perspectives in sociology, their relation to contemporary social issues, and their roots in classical social thought. Required of sociology majors. Kurzman, staff. [GC/P]

51 Measurement and Data Collection (3). Methods of data collection, with attention to problem selection, sources of information, choice of methods, and research design. Operationalization and measurement; sampling, construction of questionnaires, and interviewing: observation techniques; experimentation. Required of sociology majors. Cramer, Harris, Kalleberg, Wiggins.

52 Data Analysis in Sociological Research (3). Prerequisite, Sociology 51. Methods of data analysis: descriptive and inferential statistics and multivariate analysis to permit causal inference. Attention to problems of validity and reliability, and to index construction. Required of sociology majors. Cramer, Harris, Wiggins, staff.

80 Social Theory and Cultural Diversity (INTS 80, COMM 80) (3). Introduction to basic paradigms of thinking about cultural difference (race, gender, nationality, religion, etc.), encouraging students to examine how these paradigms shape how we act, think, and imagine as members of diverse cultures. Staff. [GC/SS]

92 Independent Study and Reading (Var. 1-3). Permission of instructor and director of undergraduate studies. Special reading and research in a selected field under the direction of a member of the department. Staff.

95 Special Topics in Sociology (3). Periodic offering of courses on developing topics in the field. Staff.

98, 99 Senior Honors Research and Seminar (3 each). Individual student research (under supervision of an adviser). Periodic seminars to discuss work on honors thesis, as well as special topics in sociology. (Sociology 98 is required of senior honors candidates.) Kalleberg.

Courses for Graduates and Advanced Undergraduates

110 Formal Organizations and Bureaucracy (3). Varieties of organizational forms, their structures and processes; creation, persistence, transformation, and demise; role of organizations in contemporary society. Aldrich, J. Blau, Nielsen.

111 Social Movements and Collective Behavior (3). Study of nonroutine collective actions such as demonstrations, strikes, riots, social movements and revolutions, with an emphasis on recent and contemporary movements. Bearman, Nielsen, Oberschall. [BA/SS]

112 Social Stratification (3). Analysis of social structure and stratification in terms of class, status, prestige, and rank. Attention to social roles of elites, professionals, the middle class, the working class and to comparative topics. Aldrich, Rosenfeld. [BA/SS]
113 Social Inequality Across Cultures (Prerequisite, Soc 10 or Soc 11.) This course focuses on social inequality in human societies in different historical periods and geographical locations. Various forms of inequality, diversity, and hierarchy are considered. Guo.

114 The City and Urbanization (3). The city as a social, spatial, and political-economic phenomenon in the modern world. Analysis of urban demographic trends, spatial characteristics and economic functions. Substantive topics include segregation, social turmoil, unemployment, fiscal problems, suburbanization, and urban public policy. J. Blau. [BA/SS]

115 Economy and Society (3). Examination of the structure and operation of institutions where economy and society intersect and interact, such as education, industrial organizations, on-the-job training, labor markets, and professional associations. Emphasis on the contemporary U.S. with selected comparisons with Western Europe and Japan. Keister. [BA/SS]

118 Comparative European Societies (Political Science 114) (3). Examination of commonalities and differences of European societies and of the tensions and difficulties attending the European integration process. Nielsen. [BA/SS]

120 The State and Society (3). Analysis of the reciprocal influences of state and social organizations upon each other; the social bases of political authority and stability, of revolution and counterrevolution. Staff.

121 Religion and Society (RELI 190) (3). Sociological analysis of group beliefs and practices, both traditionally religious and secular, through which fundamental life experiences are given coherence and meaning. Cramer, Smith, Stenness.

122 Sociology of Health and Mental Illness (3). Course examines uniqueness of the sociological perspective in understanding mental health and illness. It draws upon various fields to explain mental illness in as broad a social context as possible. Attention focuses on how social factors influence definitions and perceptions of illness. Hartos, Staff.

123 Education and Stratification (3). A study of theory and research on the educational institution, with emphasis upon the multiple and changing effects of formal education in industrial societies. Rosenfeld.

124 Law and Society (3). A sociological analysis of comparative legal systems, the role of law in social change and in shaping social behavior. Topics may include the legal profession; property distribution; and the role of law in achieving racial and sexual justice. Stenness, staff. [BA/SS]

125 Family and Society, Junior/Senior Section (3). A special version of Sociology 30 for juniors, seniors, and beginning graduate students. Students may not receive credit for both this course and Sociology 30. Elder, Entwisle, Harris, Rindfuss, Udrey, Uhlenberg. [BA/SS]

127 The Labor Force (3). Supply and characteristics of labor and of jobs, including industrial and occupation changes, education and mobility of labor, and changing demography of the workforce. J. Blau, Entwisle, Kalleberg, Rosenfeld.

128 Sociology of Art (3). Prerequisite, Sociology 10, 11, or 12; or permission of instructor. Connections between art and larger society are examined, as well as the organizational and occupational worlds of artists. Approaches in the fine arts and social sciences are contrasted. J. Blau. (BA / AES)

129 Race, Class, and Gender (WMST 129) (3). Conceptualizations of gender, race, and class, and how they are related and in combination, they are interpreted by the wider society. Emphasis on how race and working-class women make sense of their experiences at work and within the family. Kleinman, Rosenfeld. [BA/SS]

131 Aging (3). The process of aging from birth to death, with a concentration on the later years of life, examined from a broad perspective. Topics include individual change over the life-course, the social context of aging, and the aging of American society. Uhlenberg. [BA/SS]

140 Socialization (3). Examines how persons become members of groups, communities, and organizations. Emphasis on general social psychological principles and concepts of socialization. Kleinman. [BA/SS]

141 Social Deviance (3). Examines how people initiate, continue, and end stigmatized behavior; social construction of deviant categories, identities, and careers; the social psychology of labeling deviants. Kleinman.

143 Conflict and Bargaining (PWAD 143) (3). Conflict and conflict-resolution behavior. Applications to labor-management relations, family, sports, community politics, international relations. Cramer.

145 Sociology of Emotions (3). The course examines how emotions are organized within social groupings and institutions. Differences in socialization by gender, ethnicity, social class, and age will be explored. Kleinman. [BA/SS]

150 Theory and Problems of Developing Societies (3). Theories concerning the development process (motivational vs. institutional economics vs. political and social development; similarity of sequential stages and outcomes) will be related to policy problems facing the developing nations. Bollen, Oberschall. [BA/NW/C]

151 Social Change in Latin America (3). Introduction to Latin American ideologies and values; economic and demographic changes; major pressure groups (old elites, entrepreneurs, peasants, and working classes, military and intellectuals); and relations with the United States. Smith. [BA/NC/C]

158 Comparative Minority Relations (3). A comparative analysis of dominant-minority group relations. Includes both cultural and racial minorities. Nielsen.

160 Contemporary Social Theory (3). Prerequisite, Sociology 50. Analysis of current problems in general social theory; action and structure, justice and equity, social change and reproduction. Contrast and evaluation of leading approaches to solutions. Bollen, Oberschall.

168 United States Poverty and Public Policy (3). This course examines issues of poverty and social policy, single-mother families, the welfare debate, and homelessness. Students are required to participate in the a.p.p.i.e.s. service-learning program as part of the course. Harris.

169 Medicine and Society (3). The primary objective of the course is to explain why particular social arrangements affect the types and distribution of diseases and how the medical care system is organized and responds. The course will focus on three topics: social factors in disease and illness; health care practitioners and their patients; and the changing face of the health care system. BA-level Social Science perspective. Haritos.

199 Sociological Analysis: Special Topics (3). Examines selected topics from a sociological perspective. Course description for a particular semester is available in the department office. Staff.

Department of Statistics

DOUGLAS G. KELLY, Chair

Professors

Associate Professors
Jianqing Fan, Chuanshu Ji.

Assistant Professors
Katja Ickstadt, Andrew Nobel.

Adjunct Professors
Kenneth A. Bollen, A. Ronald Gallant, Harry L. Hurd, Barry Margolin, Robert N. Rodriguez.
Research Professor
Willem R. van Zwet.

Professors Emeriti

Undergraduate Major
The undergraduate program in statistics is intended for students who have a serious interest in statistics and who would like to study the subject in sufficient detail to be able to compete successfully in the important tasks for which well-trained statisticians with Bachelor of Science degrees are needed in today's world. In order to satisfy requirements for this degree, a student should be able to handle mathematics through the level of advanced calculus.

The undergraduate program in statistics leads to the degree of Bachelor of Science in Mathematical Sciences. Prospective majors should see the listing of course requirements under the heading of Curriculum in Mathematical Sciences.

Courses for Students in Other Departments
The Department of Statistics offers a variety of courses of potential value to students majoring in other disciplines. Substantial coverage of statistical theory and applied statistical analysis is provided in Statistics 101 and 102. An introduction to probability theory is provided by Statistics 126. The basic theory of statistical inference is given by Statistics 127.

Undergraduate Courses
11 Basic Concepts of Statistics and Data Analysis I (3). Prerequisite, MATH 10 (or exemption). Elementary introduction to statistical reasoning, including sampling, elementary probability, statistical inference, and data analysis. STAT 11 may not be taken for credit by students who have credit for STAT 23, ECON 70, or PSYC 30. Students who have completed MATH 22 or MATH 31 with a grade of C or higher may not take STAT 11, unless their major requires STAT 11, but may take STAT 23. Fall and spring. Staff.

23 Elementary Probability and Statistics for Business (3). Prerequisite, MATH 22 or 31 or permission of department. An introduction to probability and statistics with a special emphasis on application in business. Handling of data, probability distributions, sampling, estimation, hypothesis testing. Fall and spring. Staff.

Advanced Undergraduate Courses
101 Statistical Methods I (3). Prerequisite, integral calculus. Basic probability; descriptive statistics; introduction to statistical inference, including estimation, hypothesis testing, simple linear regression, nonparametric tests, contingency tables. Use of statistical computer packages. Fall and spring. Fan, Marron.

102 Statistical Methods II (3). Prerequisite, STAT 101. Linear regression; experimental designs; multivariate analysis; statistical computer packages. Spring. Chakravarti.

104 Sample Survey Methodology (BIOS 164) (3). Prerequisite, STAT 102 or equivalent. Principles and methods associated with survey sampling, including simple random sampling, stratified sampling and cluster sampling, questionnaire design, problems of nonresponse; sources of nonsampling errors. Design, execution, and analysis of an actual survey. Spring. Kalsbeck.

107 Actuarial Mathematics II (MATH 162) (3). Prerequisite, MATH 161, STAT 126. The theory introduced in Actuarial Mathematics I is expanded to encompass more complex models of financial transactions and risks. Spring. Staff.

126 Introduction to Probability (MATH 146) (3). Prerequisite, MATH 33. Introduction to mathematical theory of probability covering random variables, moments, binomial, Poisson, normal and related distributions, generating functions, sums and sequences of random variables, and statistical applications. Fall and spring. Ikstadt, Kelly, Nebel.

127 Mathematical Statistics (3). Prerequisite, STAT 126 or equivalent. Functions of random samples and their probability distributions; introductory theory of point and interval estimation and hypothesis testing; elementary decision theory. Fall and spring. Carlstein, Kelly.

Curriculum in Women's Studies
BARBARA J. HARRIS, Chair

Professors
Karen M. Booth, E. Jane Burns, Barbara J. Harris, Sylvia D. Hoffert.

Women's Studies is an interdisciplinary exploration of the experiences and perspectives of women. Students taking Women's Studies courses are exposed to the intellectual, social, economic, political, and artistic contributions of women throughout history and in a variety of cultures and societies. Sex, sexuality, and gender are examined as biological, psychological, and cultural phenomena. Special emphasis is placed on the nature of sex roles as social constructions varying with respect to time, place, and context.

Women's Studies courses introduce students to various ideologies that have been used throughout history to explain female and male natures, functions, roles, and places in society. Students will be exposed to the new scholarship on women and feminist theory and to critiques of feminism. Finally, Women's Studies entails redefining the traditional scholarly and academic disciplines in order to include women's domains, concerns, and perspectives as integral aspects of these fields of inquiry.

Approximately eighteen departments offer courses that focus entirely on the study of women and gender. Some of these courses have been cross-listed as Women's Studies courses and are identified below; others are taught as special sections of an established course and have to be identified separately each semester.

Students interested in Women's Studies courses, minors, or majors should contact the chair of Women's Studies and the Women's Studies adviser in the College of Arts and Sciences.

Bachelor of Arts with Major in Women's Studies
The major requires twenty-four credit hours taken in Women's Studies courses or departmental courses cross-listed with the Women's Studies Curriculum and distributed as follows:
I. Intellectual and Theoretical Foundations: nine credits.
   (1) WMST 50 or its equivalent
   (2) One course in Feminist Theory
   (3) One course in Minority/Third World/Non-Western Women

II. Interdisciplinary Perspectives: twelve credits distributed among at least two of the following:
   (1) Historical Studies
   (2) Basic and Applied Sciences
   (3) Humanities and Fine Arts
   (4) Social Sciences

III. Theory and Practice of Women's Studies: three credits. Choice of one course.
   (1) WMST Honors Thesis (WMST 098A/098B)
   (2) Independent Reading and Research (WMST 199)
   (3) Practicum/Internship (WMST 190)
   (4) The Cultural Construction of Women Across the Disciplines (WMST 99)

Honors

An Honors degree in Women's Studies is available to majors who meet the curriculum's guidelines for honors and
who successfully complete a thesis based upon original and independent research. Contact Barbara J. Harris, Chair,
Women's Studies Curriculum, for more information.

Minor in Women's Studies

A minor in Women's Studies enables students who major
in another area to develop an expertise in the interdisciplinary
study of women. A minor consists of fifteen credits (five
courses) in Women's Studies. The credits must include
WMST 50 and come from at least two of the four divisions
of the College of Arts and Sciences.

Women's Studies courses include both courses exclusively
in Women's Studies and courses in other departments cross-listed
with Women's Studies. An internship in Women's Studies can be counted towards three of these twelve credits.
Cross-listed courses in a student's major department will not
count toward a minor in Women's Studies.

Women's Studies Courses

(Administered directly by the Curriculum in Women's Studies)

50 Introduction to Women's Studies (3). An interdisciplinary exploration of
women and men in American society. Topics include: family and work;
sexuality and sexual identity; gender roles and images in language, literature,
religion, art, and science; and the impact of the contemporary feminist
movement. Course readings drawn from the humanities and the social sciences.
Fall and spring. Harris, Hoffert, Booth, Burns.

70 Women in the Age of Victoria (HIST 70) (3). Students will study the
impact of culture on the lives of women in Britain and the United States in
the nineteenth and early twentieth centuries. Fall. Hoffert.

93 Gender and Imperialism (3). Prerequisite, one course in gender or in
non-Western societies or consent of instructor. This course focuses on feminist
perspectives on imperialism; the effects of imperialism on colonized
and European women; women's participation in anti-imperialist move-
ments; and the legacies of imperialism for feminism today. Spring. Booth.

94A Courtship and Courtliness from King Arthur to Queen Victoria
(FREN 94A) (3). Interdisciplinary study of western views concerning love
between the sexes, focusing on courtly love in the Middle Ages and
Romantic love in the Victorian era. Literary, historical, and art historical

95 Special Topics in Women's Studies (3). Topics are announced in
advance and reflect the interest of the particular instructor. Each course will
concern itself with a study in depth of some problem or issue in Women's
Studies. Staff.

97 Women's Spirituality across Cultures (3). How women's spirituality
interacts with officially-sanctioned religious institutions in the context of culture
and its conceptions of those traditions. Fall. Burns.

98A Honors in Women's Studies (3). Prerequisite, permission of instructor
and chair. Introduction to the methods of research in Women's Studies and to researching an Honors essay. Fall.

98B Honors in Women's Studies (3). Prerequisite 98A, permission of
instructor and chair. Writing and completion of a Honors essay. Spring.

99, 99H The Cultural Construction of Women across the Disciplines (3).
Prerequisite, WMST 50. A seminar for Women's Studies majors and other
students that explores the different ways that traditional academic disciplines
have constructed "women" as a category of knowledge. Spring. Burns, Hoffert, Harris.

190 Practicum in Women's Studies (2-4). A supervised internship designed
to provide experience working in organizations concerned with women's
issues. Prerequisite, WMST 50. Written work required. Open to Women's
Studies majors and other qualified students. Permission of internship coor-
dinator necessary. Fall and spring. Staff.

199 Independent Reading and Research (3). Intensive reading/research
under faculty supervision resulting in a written paper. Open to Women's
Studies majors and other qualified undergraduate and graduate students.
Permission of the curriculum chair necessary. Fall and spring. Staff.

Courses Cross-Listed with Women's Studies

(For descriptions of courses below, see listings under department headings.)

24 Sex and Gender in Society (Sociology 24) (3). Rosenfeld, Udray, staff.

42 Sex and Gender in Antiquity (Classics 42) (3). Spring.

43 French Women Writers in English Translation (French 43) (3). Staff.

44 Women in German Cinema (German 44) (3). Fall. Kuzniar.

45 Women of Byzantium (Classics 45) (3).

46 Philosophical Issues in Feminism (Philosophy 46) (3). Fall and spring.

56 Gender and Communication (Communication Studies 24) (3). Long.

58 Women in Europe I (History 58) (3). Fall. Bennett, Harris.

59 Women in Europe II (History 59) (3). Spring. Bennett, Harris.

60 Women in Russian and Soviet History, 1860 - Present (History 61) (3).
Spring and summer. Raleigh, staff.


62 Women in American History (History 62) (3). Fall or spring.

64 Women in the Visual Arts I (Art 64) (3). Sheriff.

65 Black Women in America (Afro-American Studies 65) (3). Staff.

67 Feminism and Political Theory (Political Science 67) (3). Fall, spring,
summer. Leonard.

71 Language and Power (LING 72, ANTH 84) (3). See Linguistics 72.

72 Women and Politics (Political Science 72) (3). Spring. Conover.
80 Women and Gender in Latin American History (History 80) (3). Spring. Chambers.
86 American Women Authors (English 86) (3). Fall. Wagner-Martin.
87 Southern Women Writers (English 87) (3). Staff.
89 Women in Opera (Music 91) (3). Fall, spring. Rhodes.
90B Feminist Theory and Literary Criticism (English 90B) (3). Staff.
91 Women and Economics (Economics 91) (3). Spring. Staff.
92 Women and Work, 1850 - 1900 (Comparative Literature 92) (3). Fuest.
96 Modern Women Writers (Comparative Literature 96) (3). Leonard.

103 Reproductive Physiology (Maternal and Child Health 103) (3).
120 Image of Women in Sixteenth- and Seventeenth-Century Hispanic Literature (Spanish 120) (3). Spring. Perelman.
125 Space, Place and Difference (Geography 125) (3). Fall. Cravely.
129 Race, Class, and Gender (Sociology 129) (3). Fall. Kleinman.
140 Gender and Culture (Anthropology 140) (3). Spring. Staff.
141 The Anthropology of Gender, Health, and Illness (Anthropology 141) (3). Spring. Staff.
142 Gender Issues in Planning and Development (Planning 142) (3). Noponen.
145 The Figure of the Father in Religion and Literature (Religious Studies 145) (3). Fall, spring. Masuzawa.
150 Topics in Gender and Literature (English 50) (3). Staff.
151 Women in the Visual Arts II (Art 151) (3). Sheriff.
160 Women and Religion in U.S. History (History 160) (3).
161 Introduction to Women's Health and Health Education (Health Education 160) (3). Earp.
164 Advanced Feminist Political Theory (Political Science 164) (3). See Political Science 164 for description.
168 Women in the South (History 168) (3). Spring. Hall.
178 Gender in the History of Religions (Religious Studies 178) (3) Fall or spring. Wagorne.
183 Contemporary Sex Roles (Psychology 183) (3). Margolis.
185 Women in Folklore and Literature (Folklore 185, English 185) (3).
186 Contemporary Russian Women's Writing (Russian 186) (3).
195A Women in the Middle East (History 195A) (3) Shields.

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Kenan-Flagler Business School

ROBERT S. SULLIVAN, Dean

Distinguished Professors

Professors

Associate Professors

Assistant Professors

Bachelor of Science in Business Administration (B.S.B.A.)

The Business Major-

Undergraduate business education at the Kenan-Flagler Business School begins in the junior year after two years of General College. Once admitted, business students take required core courses in business administration as well as elective courses from within the school and from other schools and departments. The B.S.B.A. Program is a two-year curriculum, and students are expected to graduate from UNC-Chapel Hill in eight semesters.

The B.S.B.A. Program's mission is to educate students for management careers in business, industry, and government. With a philosophy of a broad and enriched curriculum for students who are open-minded citizens, the program is considered general, with no one area emphasized. Further learning in the liberal arts and sciences is required to ensure that students are prepared to contribute widely to careers,
community, and to the world at large. The program sponsors several student organizations and educational events throughout the academic year that enhance the academic experience for student participants.

Admission from UNC-Chapel Hill
General College

Admission to the undergraduate business major begins with an application submitted in the fall of the sophomore year and provisional admission granted in early February for matriculation in the fall of the junior year. Any student at UNC-Chapel Hill who will fulfill General College requirements, including business prerequisites, before the beginning of the junior year fall semester may apply for admission to the B.S.B.A. Program. As a general rule, all business prerequisites must be finished before fall semester begins or admission will be denied. A student who wishes to finish prerequisites in Summer School must indicate that on the application. Final grades for courses unfinished at the time of application must reflect the same level of achievement as courses considered at the time of application.

Students with outstanding extracurricular experiences and who have a good GPA are encouraged to apply. Applications will address GPA, written communication skills, educational and career objectives, academic accomplishments and honors, extracurricular activities, leadership opportunities, athletic endeavors, and work experience. Students who attain a minimum cumulative grade average of 3.0 in all course work and in business prerequisites are given priority consideration in the admissions process. It is also true, as noted by the application questions, that GPA is not the sole criterion for admission.

Approximately three hundred students are admitted to the program each year. Students who are not admitted during the regular admissions process will be deferred until the end of the next grading period, and their status reviewed in early June. For students attending Summer School, final admission decisions are completed in August. Students receiving a deferral are responsible for updating their applications and providing the last relevant transcript to the Kenan-Flagler Business School. Any student who applies to the B.S.B.A. Program after the December deadline generally will be deferred until the later dates in June or August.

Transfer Admission from Institutions other than UNC-Chapel Hill or UNC-Chapel Hill Continuing Studies

Undergraduate transfer students cannot be admitted directly to the Kenan-Flagler Business School. Students who seek to transfer to UNC-Chapel Hill and complete studies in business administration must first apply directly to the UNC-Chapel Hill Office of Undergraduate Admissions. Students who meet requirements for admission to the university are admitted into the College of Arts and Sciences, from which they may apply to the business school.

A limited number of competitive spaces in the business major are reserved for students who transfer from other institutions. Transfer students who wish to major in business administration must spend a minimum of one semester in residence at UNC-Chapel Hill (or two sessions of Summer School) in order to apply for admission to the Kenan-Flagler B.S.B.A. Program. During this time, transfer students who wish to apply for admission must establish a UNC-Chapel Hill grade average of at least a 3.0 (cumulative). Generally, students must complete a minimum of twenty-three-credit courses (including those transferred) to satisfy General Education requirements, and satisfactorily complete business prerequisites.

A student who meets the criteria listed above will be favorably considered for admission but because of space limitations admission cannot be guaranteed. Students who transfer from institutions accredited by the American Assembly of Collegiate Schools of Business are given preferred consideration.

Transfer of Business Course Credits from Other Institutions

The Kenan-Flagler Business School will approve for transfer credit those courses that meet the following criteria: the course is completed at an institution accredited by the American Assembly of Collegiate Schools of Business (AACSB); the student receives a final course grade of at least C as verified by an official transcript; the course is similar to one available in the Kenan-Flagler curriculum; the course must not be approved for credit in other UNC-Chapel Hill departments (i.e., no double credits); the course was completed within the past three years. For students who wish to transfer to UNC-Chapel Hill, pre-approval of such courses is encouraged before taking the course. Transfer students requesting validation of course credits earned at another institution must do so no later than the end of the first full semester of enrollment at UNC-Chapel Hill. For enrolled students, requests for course validation must be made no later than the end of the first semester of enrollment following completion of the course.

Any student enrolled as a business major at Kenan-Flagler must receive advance approval before taking courses at another institution. A maximum of six credit hours may be approved for upper-level courses. Because a minimum of eighteen courses (fifty-four credit hours) of upper-level work must be completed in residence at the Kenan-Flagler Business School, transfer students who have completed a substantial number of business courses at another institution should not seek admission to the business school.

The faculty strongly recommends that the core curriculum for the business major be completed in residence at Kenan-Flagler. The senior capstone course (BUSI 190) and all courses required for the business minor must be completed at Kenan-Flagler.

Courses completed at nonaccredited (AACSB) institutions are generally not eligible for credit. Courses completed at constituent institutions of The University of North Carolina at Chapel Hill and at foreign institutions pre-approved by the Kenan-Flagler Business School as part of a
UNC-Chapel Hill-affiliated Study Abroad program may be considered for transfer credit. Final approval for transfer credit is determined by the UNC-Chapel Hill Office of Undergraduate Admissions.

**B.S.B.A. Curriculum**

The following courses (or their equivalents) are required for admission to the Kenan-Flagler Business School and must be included in the twenty General College courses completed (excluding physical activities courses):

- **ENGL 11** English Composition and Rhetoric
- **ENGL 12** English Composition and Rhetoric
- **MATH 22** Calculus for Business and Social Sciences
- **MATH 31** Calculus of Functions of One Variable
- **STAT 23** Elementary Probability and Statistics for Business
- **BUSI 24** Applied Business Statistics and Management Science
- **ECON 10** Introduction to Economics
- **ECON 100** Microeconomic Theory and Applications
- **ECON 101** Intermediate Theory: Price and Distribution
- **BUSI 71** Accounting Principles (Financial Accounting)

*All admitted students must complete the following courses:*

- **BUSI 96** Business Computing Skills
- **BUSI 100** Business Communication
- **BUSI 130** Operations Management
- **BUSI 140** The Legal Environment of Business
- **BUSI 150** Organizational Behavior
- **BUSI 160** Principles of Marketing
- **BUSI 170** Management
- **BUSI 180** Financial Management
- **ECON 130** Macroeconomics: Theory and Policy
- **ECON 132** Intermediate Theory: Money, Income, and Employment

*The senior capstone is to be taken after all eight core courses (listed above) are completed.*

- **BUSI 190** Strategic Management
- **BUSI 199** Management Simulation

**The Business Minor**

Admission to the business minor follows the same application process as does the business major each year. Admission is both selective and competitive; approximately thirty to fifty students are admitted to the business minor. Students who are enrolled at UNC-Chapel Hill may apply to begin the business minor for their junior or senior year; the minor requires a minimum of two semesters, preferably three, to complete.

The prerequisites for the minor are: **BUSI 24** (which has prerequisites of **MATH 22** or 31 and **STAT 23**) and **BUSI 71** (before which **ECON 10** is to be completed).

Students in the business minor are limited to five courses: **BUSI 130**, **BUSI 160**, and **BUSI 180**; **BUSI 140** or **BUSI 150** or **BUSI 170**; and **BUSI 190**.

**Computer Skills**

All students are expected to be computer literate and proficient in word processing, spreadsheets, and presentation graphics; additionally, some familiarity with database management is desired. To this end, **BUSI 96** is a required course in computing skills. Proficiency demonstrated by examination may exempt a student from this requirement. A computer lab is located in the business school and additional labs are at other campus facilities.

**Study Abroad**

Kenan-Flagler supports international study as a complement to the curriculum. The B.S.B.A. Program, in conjunction with the UNC Study Abroad office, endorses five Study Abroad opportunities:

- Spring semester study program at the Center for European Studies at Maastricht University, Maastricht, The Netherlands; semester exchange program at École des Praticiens du Commerce International (EPSCI) in Paris, France; semester exchange program at Wirtschaftsuniversität Wien-The University of Business and Economics, Vienna, Austria; semester exchange at Sophia University, Tokyo, Japan; and UNC-Chapel Hill Belgium/Germany Summer Study Abroad (four weeks in May-June).

Other study abroad opportunities available at UNC-Chapel Hill may be acceptable to the B.S.B.A. Program with advance consultation.

**Student Activities**

The B.S.B.A. Program sponsors several student organizations, including the Black Business Student Alliance, Carolina Women in Business, the Investment Club, the Marketing Club, the Undergraduate Business Council, Alpha Kappa Psi, Delta Sigma Pi, and Phi Beta Lambda. Each fall the Undergraduate Business Symposium hosts executives from around the country to interact with students and faculty and discuss contemporary business issues.

**Career Development**

The B.S.B.A. Program works closely with University Career Services (UCS) to ensure that undergraduate business
students are well prepared for future careers. UCS provides students with a full scope of services, including on-campus interviewing, résumé referral, career fairs, and panel discussions. UCS also provides internship assistance. Students may browse the UCS World Wide Web homepage at <http://www.unc.edu/depts/career/> for information about University Career Services and employment opportunities.

In addition to the services provided by UCS, the B.S.B.A. Program provides customized professional development opportunities throughout the year, such as Internet career search workshops, in-depth programs in areas such as investment banking and sports marketing, and a career manual tailored specifically to the needs of business students. The B.S.B.A. Program can connect students with B.S.B.A. alumni who have agreed to offer career advice. A list of helpful career Web sites is on the Kenan-Flagler homepage at <http://www.bschool.unc.edu/career/internet.html>.

For more information

The B.S.B.A. Program and the full curriculum that leads to the degree Bachelor of Science in Business Administration is described in a bulletin of the Kenan-Flagler Business School.

B.S.B.A. Program Admissions
Kenan-Flagler Business School
CB 3490, 3122 McColl Building
Chapel Hill, NC 27599-3490
(919) 962-3235; fax (919) 962-6964
email: bschool-undergrad@unc.edu
<http://www.bschool.unc.edu>

Courses

Business Administration courses are designated as BUSI. The following courses are prerequisites for all BUSI courses numbered 100 or above: BUSI 24, BUSI 71; ECON 10 and ECON 101. A minimum grade of C or instructor permission is required for grade waiver.

*24 Applied Business Statistics and Management Science (3). Prerequisite, Mathematics 22 or 31 and Statistics 23. Statistical techniques for analyzing business problems. Topics include estimation, hypothesis testing, regression, time series, linear programming; also an introduction to the use of the computer.

71 Accounting Principles (3). Prerequisite, Economics 10 or equivalent. Role of accounting: basic concepts and methodology; mass data processing; valuation and income determination principles; management and internal control problems and basic financial statement components.

*After receiving credit for BUSI 24, business majors may not receive credit for Economics 70.

96 Business Computing Skills (15). An introduction to the design and use of various word processing, spreadsheet, presentation graphic, and database management applications.

Courses for Graduates and Advanced Undergraduates

100 Oral and Written Communication in Business (3). Open to business majors only. Analysis of basic types of business presentations in a variety of business settings. Instruction, coaching, and practice presentations are combined to increase business presentation skills.

110 Deterministic Models for Decision Problems (3). Prerequisite, Business Administration 24 or equivalent. The use of quantitative tools for formulating, solving, and analyzing deterministic decision problems. Topics include linear programming, network models, and dynamic programming.

111 Probabilistic Models for Decision Problems (3). Prerequisite, Business Administration 24 or equivalent. The use of quantitative tools for formulating, solving, and analyzing probabilistic decision problems. Topics include decision analysis, simulation, queueing, inventory control, and reliability.

120 Risk Management (3). Analysis of the financial problems inherent in the multiplicity of static risks that confront the business enterprise, and evaluation of the alternative methods of dealing with such problems utilized in modern scientific risk management.

122 Advanced Risk Management and Insurance (3). Prerequisite, Business Administration 120 or equivalent. An analysis of risk measurement and a study of insurance devices to combat risk in the business firm.

126 Introduction to Real Property (3). An introduction to the social, political, and economic aspects of real property.

130 Operations Management (3). Analysis of the production/operations function in both manufacturing and nonmanufacturing organizations. Developing production policies which support total organizational goals under varying constraints.

131 Operations Strategy (3). Prerequisite, Operations Management 130 or equivalent. A case analysis course developing a general management perspective on strategy formulation in the operations function and emphasizing operations linkages to the market place.

133 Design and Operation of Production Systems (3). Prerequisite, Business Administration 130 or equivalent. The design of modern manufacturing planning and control systems, production planning, master production scheduling, material and capacity planning, shop floor control, and Just-In-Time manufacturing methods.

134 Service Operations (3). Prerequisite, Operations Management 130 or equivalent. Includes service package development, yield management, scheduling, queueing, quality measurement, impact of technology, managing professional services including facilitator services (accounting, consulting, real estate, legal services).

137 Operations Logistics Management (3). Prerequisite, Business Administration 130 or equivalent. The integration of various managerial activities, e.g., purchasing, inventory control, which deal with the flow of materials into, through, and out of an organization.

140 Legal Environment of Business (3). An introduction to the legal system with special emphasis upon its relationship to business. Topics covered include an introduction to the judicial system, torts, and contracts.

141 Commercial Law (3). Prerequisite, Business Administration 140 or equivalent. Not open to students who have taken Business Administration 144. A detailed examination of commercial law topics including sales, commercial paper, bank deposits and collections, secured transactions, suretyship, bank regulations, and bankruptcy.

142 Managerial Law (3). Prerequisite, Business Administration 140 or equivalent. Not open to students who have taken Business Administration 144. A detailed examination of the legal aspects of business organizations, including agency, joint ventures, partnerships, limited partnerships, corporations, and securities regulation.
150 Organizational Behavior (3). An introduction to the study of human behavior in organizations. Examines from a managerial perspective the impact of individual, group, and organizational variables on organizational performance and employee satisfaction.

152 Organizational Management and Design (3). Prerequisite, Business Administration 150 or equivalent. Systems analysis of behavior in organizations and its application to the management of human resources. Fall and spring. Blackburn, Victor.

154 Business Leadership and Interpersonal Relations (3). Prerequisite, Business Administration 150 or equivalent. Analysis of problems, methods, and incentives in the development of personnel. Emphasis is on the development of supervisors and executives.

157 Human Resource Management (3). Prerequisite, Business Administration 150 or equivalent. Problems, policies, and procedures in the management of personnel, including topics such as staffing, performance appraisal, training, compensation, benefits and services, safety and health, equal employment, discipline, justice.

158 Introduction to Labor-Management Relations (3). An introduction to labor-management relations with particular emphasis on the collective bargaining process. Topics include labor law, management rights, grievance/arbitration process, and labor-management cooperation.

160 Principles of Marketing (3). Introduction to marketing with emphasis on the social and economic aspects of distribution, consumer problems, marketing functions and institutions, marketing methods and policies.

161 Advertising (3). Prerequisite, Business Administration 160 or equivalent. The organization and functions of advertising. Topics include economic and social aspects; types of advertising and advertising objectives; developing advertising messages; media selection and evaluation; advertising research.

163 Sales Management (3). Prerequisite, Business Administration 160 or equivalent. An overview of the sales management process, including sales force planning, budgeting, recruiting, selection, training, compensation, supervision, and control.

164 Consumer Behavior (3). Prerequisite, Business Administration 160 or equivalent. Review of conceptual models and empirical research in consumer behavior. Topics include decision processes, social and cultural influences, information processing, and ethical issues.

168 Introduction to Marketing Research (3). Prerequisites, Business Administration 24 and 160 or equivalents. An introduction to research methodology with emphasis upon the compilation, analysis, and interpretation of data used in the planning and control of marketing operations.

169 Marketing Policies (3). Prerequisites, Business Administration 160 or equivalent, and senior standing. A problem method course dealing with specialized marketing functions and policies: includes product and lines, brands, channels of distribution, prices and pricing, promotion, and diagnosis and control.

170 Management Accounting (3). Prerequisite, Business Administration 71 or equivalent and prerequisite or corequisite Economics 100 or 101 or equivalent. Elements of accounting for management planning, budgeting, and control. Emphasis is on management uses of accounting information.

173 Advanced Managerial Accounting (3). Prerequisite, Business Administration 170. Using financial information to make strategic decisions. Topics covered are cost behavior, management control systems, and product costing, with emphasis on activity-based costing to analyze product and consumer profitability.

177 Introduction to Business Taxation (3). An introduction to business taxation with particular focus on U.S. corporate and individual income taxation. Examines the development of a conceptual framework for evaluating the impact of taxes on business decisions and the fundamental features of the current income tax system. Material is presented from the perspective of both the tax planner and the social planner in a multidisciplinary approach with links to accounting, economics, law, and government.

178 Financial Statement Analysis (3). The interpretation and use of financial statement information. The emphasis is on users of financial statements, including portfolio managers, small investors, lenders, potential acquirers, or corporate strategic planners.

180 Principles of Financial Management (3). Theoretical foundations of optimal financial policy. Problems and cases provide application of theory to financial decisions involving cash flow, capital structure, capital budgeting.

182 Theory and Application of Financial Management (3). Prerequisite, Business Administration 180 or equivalent. A follow-up course to Business Administration 180 which goes more deeply into the theory and application of financial management. Emphasis is placed on investment, financing, and dividend decisions.

185 Financial Institutions and Markets (3). Prerequisite, Business Administration 180 or equivalent. Analysis of the operating policies of financial institutions and the effect of such policies upon the structure of the capital markets.

186 Investments (3). Prerequisite, Business Administration 180 or equivalent. A survey of investment principles and practices. Emphasis is given to the problems of security analysis and portfolio management with special attention to the investment problems of the individual investor.

189 International Finance (3). Prerequisite, Business Administration 180 or equivalent. An introduction to the international aspects of financial decision making. Builds on the foundation laid in the basic financial management course. Emphasis on topics of primary interest to the treasurer of a multinational corporation. Particular attention to the determination of exchange rates.

190 Strategic Management (3). Prerequisites, Business Administration 100, 130, 140, 150, 160, 170, 180, Economics 130 or 132. Open only to seniors majoring in business administration. Comprehensive analysis of administrative policy-making from a total organizational point of view, use of case analysis and written reports to develop integrative decision skills.

191 Introduction to International Business (3). Prerequisite, senior standing. Problems in operating overseas, including analysis of differences in country settings, legal and financial systems, and governmental policies affecting foreign operations.

192 Introduction to Management Information Systems (3). A survey of the elements and functions of management information systems and the principles underlying the design and management of effective systems.


193B Business Operations in Europe (3). Permission required. Focuses on current topics involving issues related to American and European business relations. Visits to manufacturing facilities in Europe. Addresses issues such as privatizing industry and work regulations.

195 Business Research Practicum (3). Prerequisite, senior standing and permission of instructor. Under the guidance of faculty member(s), student teams develop, conduct, and evaluate business research projects such as case writing, manager interviews and site visits, and data collection and analysis. Teams are required to submit a final written report and oral presentation from which credit is determined.

196 Independent Study (3). Prerequisite, completion of requisite core course and permission of instructor. Supervised individual study and research in the student's special field of interest. The student will propose the investigation desired, and, in conjunction with the instructor, develop the scope of the work to be completed. Written report required.
197 Business Seminar (3). Prerequisite, completion of requisite core course(s) and permission of instructor. Selected topics in business administration presented in seminar format with students engaged in individual and team study under the supervision of a member of the faculty.

198A, 198B Honors Thesis (3 each). Prerequisite, senior major in business administration, 3.5 cumulative GPA, and permission of the faculty adviser. Original investigation of a topic in business administration and preparation of a substantive research project under the direction of a member of the faculty. A written essay and an oral presentation are prepared and submitted to a three-person faculty committee. The committee determines whether the thesis justifies the ward of honors status and, if so, recommends to the dean whether the student graduates “with honors” or “with highest honors.”

199 Management Simulation (3). Open only to seniors majoring in business administration. A seminar simulating the operation of a more complex business enterprise. Student teams operate competing firms in an industrial environment simulated by a computer.

The School of Education
MADELEINE GRUMET, Dean

Walter B. Pryzwansky, Associate Dean for Academic Programs and Director of Graduate Studies
Dixie Lee Spiegel, Associate Dean for Students
Robert C. Kanoy III, Associate Dean for Planning and Evaluation and Director of Center for Educational Leadership
William L. Burke, Director of Professional Development Schools
Carolyn F. Jones, Assistant Director of Professional Development Schools

Professors

Associate Professors

Assistant Professors

Research Professors
Donald Bailey, Charles Bullock, H. Dickson Corbett, Thelma Harms, Mark Wolery, David E. Yoder.

Research Associate Professors
Deborah Bender, Donna Bryant, Richard Clifford, Lowell Roberts, James White.

Research Assistant Professors
Virginia M. Buysse, Thomas Farmer, Robert A. McWilliam.

Clinical Professors
Donald Boulton, David D. Dill, Roy Edelfelt, Lois Green, Kenneth Jens, Bobbie Lubker, James Lyons, Thomas McKeon, Robert Pitillo, Michael Stritter, Clarence York.

Clinical Associate Professors
Mary Coleman, John Edgerlby, Suzanne Gulledge, Gloria Harbin, Perry Harrison, Gail Huntington, Robert Kanoy, Gerry Madrazo, Howard Maniloff, Susan Otterbourg, John Pelosi, Russell Rowlett, Timothy Sanford, David Thomas, Pascal Trohanis, Ralph Wenger, Rhonda Wilkerson, Ralph Wenger, Pamela Winton.

Clinical Assistant Professors

Clinical Instructors
Kathleen Fitzgerald, Cheryl Goldstein, Brandon Smith.

Lecturers

Adjunct Professor
Jerry Weastl.

Adjunct Associate Professor
Lois Makoid.

Adjunct Assistant Professors
Michael Bigsby, James M. Helm, Ivan Olson, Sally Ward.

Adjunct Instructors
Elizabeth Frasier, Barbara Rhoades.

Visiting Assistant Professors
Fixed-Term Professor
Richard Phillips.

Visiting Lecturer
C. Duff Coburn.

Visiting Instructor
Paul Hrusovsky.

The School of Education offers programs of study beginning in the junior year to undergraduate students who plan careers in the field of teaching. The programs are designed to prepare students to teach at one of the following levels, depending on the year in which they entered the University: child development and family studies (birth-kindergarten); elementary (grades K-6); middle grades (grades 6-9); secondary (grades 9-12); special subjects (grades K-12).

Students who entered the University prior to fall 1995 can major in one of the following program areas:

- child development and family studies;
- elementary education;
- middle grades education;
- secondary education in English, Latin, mathematics, science, or social studies; or
- one of the special subjects, which are modern foreign language education, physical education, or music education.

Beginning with freshmen who enter the University in fall 1995, the School of Education instituted a moratorium on admission to secondary and special subjects programs at the bachelor's level. Instead, for individuals wishing to obtain teaching licensure in English, foreign language, mathematics, music, science, and social studies education, the School of Education offers a M.A.T. (Master's of Arts in Teaching) program. Admission to this program will be based on successful completion of a B.A. or B.S. in an appropriate Arts and Sciences major.

Students who entered the University as freshmen in fall 1995 and thereafter may still seek admission to four-year programs in child development and family studies, elementary education, and middle grades education. Students are admitted to the School of Education as transfers from the General College and, on a very limited, space-available basis, from other departments of UNC-Chapel Hill or other institutions. In order to provide a quality preprofessional program that includes a set of effective clinical experiences, the school must accept only the number of students that can be appropriately supported by available faculty and community resources. Therefore, admissions to the School of Education are limited.

The criteria for admission include, but may not be limited to, academic progress, commitment to the teaching profession and children, and passing scores on the PRAXIS I: Pre-Professional Skills Test (PPST). These tests are given in February, May, and October. Prospective education majors are advised to take the test no later than October of their sophomore year. Registration for the exam closes approximately six weeks before the exam date.

Special consideration for admission is given to students with teaching-related scholarships and to students who would enhance the diversity of the teaching profession. Two letters of recommendation are required. In addition, students must have a minimum grade point average of 2.5 by the end of their fourth semester to be formally admitted. However, attainment of a 2.5 grade point average does not guarantee admission.

Applicants also need to complete a form stating whether they have ever been convicted of, or arrested for, a violation of law other than a minor traffic violation. This information has an impact on the school's ability to place a student in a public school field experience, including student teaching, and will affect his or her eligibility for licensure to teach. Applicants with questions about this policy should contact Dixie Lee Spiegel, Associate Dean for Students, at 966-1346.

Applications are available in 114 and 116 Steele Building. Interested students should check with the General College Education Adviser about the application deadline, which is generally in mid-January.

Each degree-seeking student is required to fulfill the General College requirements, primarily in the freshman and sophomore years, to select courses appropriate to the major field of concentration, to take courses in education designed to meet teacher licensure requirements and to comply fully with all regulations and requirements for graduation from the University.

Honors Program

During the spring semester of the junior year, an honors student in education participates in the honors seminar. During the senior semester in which the student is not student teaching, the student prepares an honors thesis, on which there will be an oral examination. The program is limited in enrollment and open on a space-available basis to students with a grade point average of at least 3.4.

Degrees Offered

The following degrees are awarded to students completing undergraduate programs of study in the School of Education: Bachelor of Arts in Education (child development and family studies, elementary, middle grades, and secondary areas); Bachelor of Music Education (K-12); and Bachelor of Science in Science Teaching (secondary).

Graduation Requirements

In addition to the general University requirements for graduation stated in this bulletin, a student who secures a degree in the School of Education must meet each of the following minimum requirements:

- a minimum of 120 semester hours of credit, plus two one-hour physical education activity courses, with a final cumulative grade point average of not less than 2.0. The last thirty hours of a degree program must be taken in residence at UNC-Chapel Hill;
the freshman-sophomore pattern of courses required by
the General College and a distribution of courses in the
junior and senior years that meets the requirements for
the student's particular major pattern as described below;
• a satisfactory teaching major in elementary education or
in one of the teaching areas at the middle grades or sec-
ondary school level or in a special subjects area;
• for elementary education students, completion of the
requirements for a second major academic concentration
in a College of Arts and Sciences program;
• a grade of C (2.0) or better for each professional course
(EDUC) in the School of Education and on at least eight-
teen semester hours of work in the major academic core
and an overall C (2.0) average in the major teaching field.

Professional Program

In the senior year, students spend a full semester in speci-
fied professional courses. This semester is referred to as the
"teaching internship" (student teaching) semester. For stu-
dents in the four-year programs in English education, math-
ematics education, science education, and social studies
education, the teaching internship is offered only during the
fall semester. For elementary, middle grades, foreign lan-
guage, physical education, and music education, the teach-
ing internship is offered only during the spring semester.

Students may not enroll in other courses during this semes-
ter nor hold a job. Because all of the teaching internship
areas are offered only fall or spring semester, it is imperative
that students plan their programs during the junior year to
assure registering for the designated teaching internship
during the appropriate semester of the senior year. All
EDUC courses and all General College requirements must be
completed before the internship semester. In addition, many
specialty areas require that specific courses be completed
before the internship. Students should consult their advise-
ment worksheets in order to identify those courses.

Students should plan in advance of the teaching intern-
ship semester for housing, since they may or may not be
placed in Chapel Hill for student teaching. Most students
will find that a car is necessary.

Student teachers are expected to abide by the public
school calendar once they begin full-time student teaching.
This means that, in most years, student teachers will not be
able to take University Fall Break or University Spring
Break, whichever falls in the student teaching period.

Because of the professional nature of the curriculum in
the School of Education, it is not possible for a student to
simultaneously pursue a degree in education and a degree in
any other school or department at UNC-Chapel Hill nor is it
possible for students in other departments to minor in
education.

North Carolina licensure for teachers and special services
personnel is independent of degree requirements. Prior to
receiving formal admission to the teacher education pro-
gram, students must satisfactorily complete the PFST: Pre-
Professional Skills Test (PRAXIS I). This must be taken by
the fall of the sophomore year. In their senior year, students
who plan to obtain licensure upon graduation must also
pass the Professional Knowledge Test and Subject
Assessment Tests (PRAXIS II). Fees are charged for all
PRAXIS examinations. Information and application forms
are available at the University Counseling Center in Nash
Hall and 114 Steele Building.

Early in the semester in which a student plans to gradu-
ate, he or she should complete an application for initial
teacher licensure in North Carolina. Application forms are
available in 103 Peabody Hall. Students also must file their
PRAXIS scores with the application for licensure. Shortly
after the official graduation date, the licensure application is
processed by the School of Education's licensure officer and
forwarded to the Licensure Section of the Human Resource
Management Division of the North Carolina State
Department of Public Instruction.

The programs described below are approved by the
Licensure Section of the Human Resource Management
Division of the North Carolina State Department of Public
Instruction and the National Council for the Accreditation of
Teacher Education. A student interested in becoming a
teacher should consult with the General College Education
Adviser for more specific information regarding a particular
program.

Child Development and Family Studies: Birth
through Kindergarten

The Child Development and Family Studies program is
an interdisciplinary program of study. Students enroll in
course work and field-based experiences with students from
the Schools of Social Work, Public Health, Nursing,
Medicine, and Psychology. The program prepares students
to work with young children (ages birth through six) and
their families in a variety of settings, including public
schools, mental health centers, child care settings, family
centers, and private preschools and infant programs.

*Total Credit Hours Required: 121 Hours
(Minimum requirement. In addition, two one-hour
PHYA activity courses must be taken.)

*GENERAL COLLEGE: 46-57 hours

| Basic Skills |  
| English composition courses | 6 hours |
| Foreign language courses | 3-11 hours |
| Mathematical Sciences courses | 3-6 hours |

Perspectives

Aesthetic Perspective: 6 hours
One literature course
One fine arts course

Natural Sciences Perspective: 7 hours
PSYC 10
One science course with lab

Philosophical Perspective: 3 hours
One course
Social Science Perspective: 6 hours
SOCI 30
One additional course from another department

Historical Perspective: 6 hours
One pre-1700 Western history course
One other history

Additional General College Course: 3 hours
PSYC 24

Notes Concerning Requirements for Child Development and Family Studies
The following courses must be taken in the semesters listed. If a student withdraws from a course or semester, the student must retake the course or semester in proper sequence.

Junior Year

Fall Term
CDFS 50 Early Childhood Development 4 hours
CDFS 121 Professional Development and Leadership Seminar 4 hours
Specialized Track courses 6 hours
CDFS 80 Interdisciplinary Seminar 2 hours

Spring Term
CDFS 101 Introduction to Child Health 3 hours
CDFS 111 Working with Families 3 hours
Specialized Track course 3 hours
Elective 3 hours
CDFS 81 Interdisciplinary Seminar 2 hours

Senior Year

Fall Term
CDFS 60 Infant Assessment and Teaching Methods 3 hours
CDFS 90 Clinical Internship (Infant) 4 hours
Specialized Track Course 3 hours
CDFS 82 Interdisciplinary Seminar 2 hours
Elective 3 hours

Spring Term
CDFS 61 Preschool/Kindergarten Assessment and Teaching Methods 4 hours
CDFS 92 Clinical Internship: Preschool/Kindergarten Settings 8 hours
CDFS 83 Interdisciplinary Seminar 4 hours

61 hours

*Specialized Track: 12 hours
Students will enroll in two-semester-hour seminars fall and spring terms during both their junior and senior years.
* Electives: 6 hours

Elementary Education:
Kindergarten-Grade Six
The elementary education program at the undergraduate level (A.B. in Education degree) provides students with a broad academic background and the specific professional education necessary to function as teachers of young children through grade six. In satisfying the requirements of the General College of the University, which cover the freshman and sophomore years, each student should choose as many of the courses listed below as possible. Students are encouraged to begin taking course work in their major academic concentrations as early as possible.

During the junior and senior years, the professional education courses and student teaching will provide a range of experiences that will include working with children at the levels identified with the elementary program.

*Total Credit Hours Required: 120 Hours
(Minimum requirement; some major academic concentrations require more hours than others. In addition, two one-hour PHYA activity courses must be taken.)

*GENERAL COLLEGE: 46-57 hours

Basic Skills
English composition courses 6 hours
Foreign language courses 3-11 hours
Mathematical sciences courses 3-6 hours

Perspectives
Aesthetic Perspective 6 hours
Literature course
One course from ART 31, 32, 33, 34, 35, 36, 37, 38, 43;
MUSC 40, 42, 45, 46; DRAM 15, 16, 20; or PHYE 93

Natural Sciences Perspective: 13 hours
(One science course below must have a lab)
Biological science course
Physical science course
PSYC 10
One additional natural science course

Philosophical Perspective: 3 hours
One course

Social Science Perspective: 6 hours
Two from POLI 41, ECON 10, ANTH 41, SOCI 30, or GEOC 20

Historical Perspective: 6 hours
One pre-1700 Western history course
One other history course (American History suggested)

*Interdisciplinary Seminars: 10 hours
*Courses Related to Teaching Methods: 9 hours
MUSC 20 (fall junior year)
PHYE 74 (spring junior year)
EDUC 4 (fall senior year)

*Professional Education 32 hours
EDUC 12 - Teaching Mathematics (fall senior year)
EDUC 51 - Teaching Reading and Language Arts (fall senior year)
EDUC 54 - Social Concepts in Education (spring junior year)
EDUC 55 - Child Development (fall junior year)
EDUC 72 - Psychology of Learning (fall junior year)
EDUC 60 - Teaching Science in the Elementary School (spring senior year)
EDUC 61 - Methods and Materials for Teaching Social Studies (spring junior year)
EDUC 62 - Student Teaching (spring senior year)
EDUC 97 - Seminar on Teaching (spring senior year)

*Major Academic Concentration 24-49 hours
Elementary education students must select a major academic concentration from the list of College of Arts and Sciences programs shown below. Completing the previously described requirements for the elementary education program and the requirements for one of the programs below (except the junior-senior perspectives) will give students a double major, one in the College of Arts and Sciences and one in the School of Education. Afro-American Studies; American Studies; Anthropology; Art History; Biology; Chemistry; Dramatic Art; East Asian Studies; Economics; English; French; Geography; Geology; German; History; Latin; Mathematics; Physics; Political Science; Psychology; Sociology; Spanish.

*Electives: 4.5 hours

Middle Grades Education: Grades Six-Nine
The middle grades education program on the undergraduate level (A.B in Education degree) provides students with a strong academic background and the specific professional education necessary to function as teachers in middle schools and junior high schools (grades six through nine). Students selecting the middle grades undergraduate program must complete the General College requirements of the University. Students working for this degree will be required to have two academic concentrations: one will be the major, and one will be a minor concentration. In addition, students complete the professional education courses during their junior and senior years.

*Total Credit Hours Required: 120 hours
(Minimum requirement; some major and minor academic concentrations require more hours than others. In addition, two one-hour PHYA activity courses must be taken.)

*GENERAL COLLEGE: 45-60 hours
(The following courses are required OR recommended as shown.)

Perspectives for Language Arts Concentration
Required:
LING 30 (Social Studies)
ENGL 23W or 25W (Literature)
One from ENGL 42, COMM 41, DRAM 15, 16, or 20 (Fine Arts)

Recommended:
HIST 11 (Pre-1700 Western History)
HIST 12 or AFAM 40 (History)

Perspectives for Social Studies Concentration
Required:
HIST 11 (Pre-1700 Western History)
HIST 12 (History)
GEOG 20 or ANTH 41 or 49 (Social Studies)

Recommended:
COMP 14 or 4 (Mathematics)
PHIL 20 or 37 (Philosophy)
BIOL 11 and 11L and GEOG 10 (Natural Science)

Perspectives for Mathematics Concentration
No specific required or recommended courses

Perspectives for Science Concentration
Recommended:
COMP 14 or 4 (Mathematics)

*Professional Education (in sequence): 30 hours
EDUC 65 - The Teaching Profession (fall junior year)
EDUC 66 - Planning for Teaching (fall junior year)
EDUC 69 - Teaching Skills Laboratory (spring junior year)
EDUC 95 - Teaching in the Middle Grades (fall senior year)
EDUC 96 - Teaching Internship (spring senior year)
EDUC 97 - Seminar on Teaching (spring senior year)

*Major Academic Concentrations: 21-34 hours
(General College courses may be used to fulfill middle grades requirements.)

Language Arts: 21 hours
ENGL 31
ENGL 36 or 38
ENGL 58
One from ENGL 146, 185, 186, 187, or 189
One from ENGL 73, 78, 81, 84, 85, 86, or 88
COMM 60
INLS Library Science 122 (or approved substitute)

Mathematics: 24 hours
MATH 31
MATH 32
MATH 11a or STAT 23
MATH 11b or 116
MATH 115 or 131
COMP 4 or 14
(Note: Some of the courses above have prerequisites.)
Secondary Education: Grades Nine-Twelve

Students who entered the University before fall 1995 and who wish to teach in the various secondary subjects (high school level) will earn the A.B. in Education with a major in English, Latin, social studies, or mathematics; or they will earn the B.S.S.T., the Bachelor of Science in Science Teaching. To do so and to become eligible for licensure by the state, students must complete the requirements of the General College of the University (freshman and sophomore years), complete the required professional education courses, and complete a teaching major in the subject of interest.

Beginning with freshmen who enter the University in fall 1995, the School of Education instituted a moratorium on admission to secondary and special subjects programs at the bachelor's level. Instead, for individuals wishing to obtain teaching licensure in English, foreign language, mathematics, music, science, and social studies education, the School of Education offers a M.A.T. (master's of arts in teaching) program.

Individuals who are admitted to a secondary education program may also consider adding an endorsement in a second teaching area. An endorsement qualifies a fully licensed secondary (grades 9-12) teacher to teach a second subject less than one-half of the school day. An endorsement in a second area is highly recommended for students in teaching areas in which jobs are often highly competitive.

An endorsement usually entails from eighteen to thirty hours of course work. Endorsements are available in the following teaching areas: Anthropology, Biology, Chemistry, Earth Sciences/Geology, Economics, English, French, Geography, German, History, Latin, Mathematics, Physics, Political Science, Sociology, and Spanish. For a listing of the specific courses in each endorsement area, interested students should consult the General College education adviser in 114 Steele Building.

*Total Credit Hours Required: 120 hours

(Minimum requirement; some majors require more hours than others. In addition, two one-hour PHYA activity courses must be taken.)

*GENERAL COLLEGE: 40-52 hours

**Basic Skills**

- English composition courses: 6 hours
- Foreign languages courses: 3-11 hours
- Mathematical science courses: 3-6 hours

**Perspectives**

- Aesthetic Perspective: 6 hours
  - One literature course
  - One fine arts course

- Natural Science Perspective: 7-8 hours
  - One science course with lab
  - One science course with or without lab

(Instead of this requirement, science education majors must complete a total of seven science foundations courses, all with labs, as shown under the science major requirements.)
Philosophical Perspective: 3 hours
One course

Social Science Perspective: 6 hours
Two courses

Historical Perspective: 6 hours
One pre-1700 Western history course
One other history course

*Professional Education: 26.5 hours

[Courses with an asterisk (*) must be taken before the teaching internship.]
*EDUC 54 - Social Concepts in Education
*EDUC 56 - Adolescent Development (prerequisite for EDUC 54)
*EDUC 45 - Basic Media Skills
*EDUC 72 - Psychology of Learning
*EDUC 153 - Teaching Reading
Appropriate methods course (teaching internship)
Student teaching (teaching internship)

*Major Subject

Students are required to choose one of the following teaching fields as their major subject: English, Latin, mathematics, social studies (with a concentration in anthropology, economics, geography, history, political science, or sociology), or science (with a concentration in biology, chemistry, earth science, or physics). Required courses for each field follow, with an asterisk (*) before the courses which must be taken before the teaching internship:

English: 36 hours

ENGL 20
*ENGL 21 or 22
*ENGL 31
*ENGL 36
ENGL 38
*ENGL 58
ENGL 84 or 85
*One from ENGL 80, 81, 82, or 83
*COMM 60
One from ENGL 51, 52, 54, 60, 64, 65, 65, or CMPL 21
One from ENGL 43, 72, 73, 78, 94, CMPL 22
One ENGL elective

Latin: 27 hours

LATN 21
LATN 110
CLAS 35
CLAS 36
Five other courses in LATN above 21

Mathematics: 27 hours

MATH 33
MATH 81
MATH 83
MATH 115
MATH 131
MATH 120 or 146
MATH 133, 134 or 138

MATH 110 or higher
COMP 4 or 14

Science

Students who choose science as their teaching field will receive the Bachelor of Science in Science Teaching upon completion of the following foundation courses and the courses required for the field they have chosen for a concentration:

Science Foundation Courses: 34 hours

BIOL 11 and 11L
CHEM 11 and 11L
CHEM 21 and 21L
GEOL 11 and 11L
PHYS 24 and 24L
PHYS 25 and 25L
ASTR 31 and 31L
COMP 14 or 4
MATH 31
(Note: fourteen hours count for General College hours.)

Science Concentrations

Biology: 28 hours
BIOL 50
BIOL 52
BIOL 54
BIOL 41, 43, 47, or 51
BIOL 108 and 180L or MCRO 51
BIOL 63, 73, or 80, and appropriate lab (63L, 73L, or 80L)
One with lab from BIOL 103, 104, 105, 120, or 122

Chemistry: 24-26 hours

MATH 32
CHEM 41/41L
CHEM 51
CHEM 61
CHEM 62/62L
CHEM 170L
CHEM 180 or 181
Two from CHEM 121, 130, 140, 141, 150, 151, 171L, 182

Physics: 29-32 hours

MATH 32
MATH 33
PHYS 52
PHYS 58
PHYS 101
PHYS 102
PHYS Three electives

Earth Science (Geology): 30-31 hours

GEOL 52
GEOL 53
GEOL 56
GEOL 57
GEOL 58
GEOL 188
One GEO L over #100
GEOG 102

SOCIAL STUDIES: 48-51 hours
Students who choose social studies as their teaching field must complete the following foundation courses and the courses required for the field they choose for a concentration.

Social Studies Foundation Courses: 36 hours
ANTH 41
ECON 10, 100
GEOG 10, 20
HIST 11, 12, 21, 22
POLI 41, 86
SOCI 10

Social Studies Concentrations:
Economics: 18 hours
ECON 59
ECON 70
ECON 130
ECON 135 or 67 or 163
ECON 141
One from ECON 111, 122, 145, 146, 151, 158, 161, 165, 166, 167, 191

Geography: 18 hours
GEOG 110
GEOG 120
GEOG 150 or 153 or 154
GEOG 128
GEOG 173 or 70 and 71
One regional course

History: 12 hours
HIST 18 or 19
HIST 34 or 38 or 39
Two from HIST 64, 71, 117, 119, 142, 150, 157, 158, 161, 162, 167, 168

Political Science: 18 hours
POLI 42
POLI 71
One from POLI 50, 52, 53, 54, 55, 56, 57, 58, 59, 60
One from POLI 61, 62, 64, 66, 68
One from POLI 161, 162, 163, 165, 166, 167, 168
One from 110, 140, 141, 155, 171, 173, 179

Sociology: 21 hours
SOCI 20
SOCI 71 or 33
SOCI 50
SOCI 51
SOCI 52
Two from above #100

Anthropology: 15 hours
ANTH 122
ANTH 186
One from each of the following three groups:
ANTH 100, 150
ANTH 43, 112, 117
ANTH 26, 36, 120, 126

Special Subjects: Kindergarten-Grade Twelve
A student who entered the University before fall 1995 and who wishes to earn the A.B. in Education degree to teach music, physical education, or a modern foreign language (French, German, or Spanish) may be licensed in North Carolina for the entire range from the kindergarten level through grade twelve upon completion of the approved program of study. A student wishing to get a degree and licensure in one of these special subjects must first complete the requirements of the General College of the University, the required professional education courses, and a teaching major in the subject of interest.

Beginning with freshmen who enter the University in fall 1995, the School of Education instituted a moratorium on admission to secondary and special subjects programs at the bachelor's level. Instead, for individuals wishing to obtain teaching licensure in English, foreign language, mathematics, music, physical education, science, and social studies education, the School of Education offers a M.A.T. (Master's of Arts in Teaching) program.

*Total Credit Hours Required: 120 hours
(Minimum requirement; some majors require more hours than others. In addition, two one-hour PHYA activity courses must be taken.)

*GENERAL COLLEGE: 39-52 hours

Basic Skills
English composition courses 6 hours
Foreign language courses 3-11 hours
Mathematical sciences 3-6 hours

Perspectives
Aesthetic Perspective: 6 hours
One literature course
One fine arts course

Natural Science Perspective: 7-8 hours
One science course with lab
One science course with or without lab

Philosophical Perspective: 3 hours
One course

*Open only to majors in the School of Education or with permission of the director of Professional Development Schools.
Social Science Perspective: 6 hours
One course (Linguistics 30 for foreign languages)
One other course

Historical Perspective: 6 hours
One pre-1700 Western history course
One other history course

*Professional Education: 26.5-33.5 hours
*Courses with an asterisk(*) must be taken before the teaching internship.
*EDUC 54 - Social Concepts in Education
*EDUC 56 - Adolescent Development (prerequisite for EDUC 54)
*EDUC 45 - Basic Media Skills
*EDUC 72 - Psychology of Learning
*EDUC 57 - Introduction to Music Education (Music only)
*EDUC 153 - Teaching Reading
*EDUC 83 - Methods (foreign language only, fall senior year)
Appropriate methods course(s)
Student teaching

*Major Subject
Students are required to choose one of the following teaching fields as their major subject: music, physical education, or modern foreign language (with the major in French, German, or Spanish). Required courses for each field follow:

Music
Students who choose music as their major field must take the following courses or their equivalents. Several of the courses may be taken in the freshman or sophomore years, because the General College requirements for this program vary from those of other programs in education. The student should consult the music education advisor in the Department of Music in Hill Hall. Students interested in music education should make an appointment with the music education program area director for an assessment of their expertise in musical performance during the fall of their sophomore year, prior to applying to the School of Education.

Music History, Literature, and Theory: 34 hours
MUSC 31
MUSC 32
MUSC 36x or proficiency
MUSC 36a
MUSC 36b
MUSC 37
MUSC 38
MUSC 51
MUSC 52
MUSC 18L or proficiency
MUSC 53
MUSC 19L or proficiency
MUSC 54
MUSC 67
MUSC 68
MUSC 78
(Note: 6 hours count for General College hours.)

Music Performance (Instrumental or Vocal): 14 hours
seven semesters of satisfactory performance,
2 hours each

Music Techniques: 7-8 hours
MUSC 72
MUSC 32
MUSC 42
MUSC 42 or 73
MUSC 55
MUSC 52 or 22
MUSC 62
(Singers must also take MUSC 60)

Music Ensembles: 7 hours
Seven semesters of large ensemble, one hour each
(except piano, organ, and guitar students: five semesters of large ensemble, one hour each, plus four semesters of keyboard or guitar ensemble, half an hour each).

Foreign Language
Students must select as their major subject French, German, or Spanish. The requirements for each are listed below. Foreign language education applicants should make an appointment in the fall of their sophomore year with Dr. Audrey Heining-Boytont (966-3291) in 301A Peabody Hall to discuss the possibility of studying abroad and to explore the applicant’s oral proficiency in the foreign language. In addition, the students must take a foreign language proficiency examination during their junior year and must score at the ACTFL Advanced Plus level. Students should contact their advisor to arrange to take the test before March 1 of the junior year.

Foreign language education majors are encouraged to spend at least one semester abroad in order to enhance fluency and develop a greater understanding of the native culture of the language studied. Usually this study takes place during the junior year. It is imperative that FLE majors plan their course of studies carefully so that they will be able to student teach in the spring of their senior year. This means: Sophomores who are planning to be abroad their entire junior year or juniors who plan to be away their junior spring semester should apply for student teaching before they leave the country. Applications for student teaching are always due during the junior spring semester for the entire succeeding academic year.

Freshmen who plan to be abroad their sophomore year should apply to the School of Education before they leave. Student teaching for FLE is only in the spring semester. EDUC 83 is given only in the fall. All EDUC courses must be taken before student teaching. FLE majors studying abroad should consider taking EDUC courses in the summers preceding and following that experience. The following EDUC courses are often available in the summers: EDUC 54, 72, and 153. However, EDUC 45, 56 and 56L, and 83 are not available during the summer.
French: 36-37 hours
FREN 21
FREN 23
FREN 50
FREN 51
FREN 52
FREN 53
FREN 145
FREN 146
Two from FREN 60, 61, or 62
One child development course
LING 30
(Note: six hours count for General College hours.)

German: 33-34 hours
GERM 21
GERM 31
GERM 32
GERM 90
GERM 100
Four from GERM 70, 71, 72, 73, 80, 81, 82, 95,
or selected 100-level courses
One child development course
LING 30
(Note: six hours count for General College hours.)

Spanish: 36-37 hours
SPAN 21
SPAN 23
SPAN 50
SPAN 51
SPAN 52
SPAN 53 or 54
SPAN 145
SPAN 146
Two from SPAN 71, 72, or 73
One child development course
LING 30
(Note: six hours count for General College hours.)

Physical Education: 36 hours
Students in the physical education major
take a thirty-six hour set of core courses
in Physical Education:
PHYE 55
PHYE 56
PHYE 57
PHYE 77
PHYE 79
PHYE 80
PHYE 81
PHYE 85
PHYE 86
PHYE 87
PHYE 88
PHYE 89

Concentrations for Physical Education
All students in physical education are required to com-
plete a concentration in interdisciplinary studies or in
another department, in addition to the physical education
major requirements.

Interdisciplinary Major—Biophysical Studies
This concentration encompasses courses in three depar-
tments: physical education, biology, and psychology, soci-
ology, or nutrition. In addition to the requirements shown
above for the physical education major, students in the in-
terdisciplinary major must take the following courses:
Biophysical Studies: 17-20 hours
Biology 45 and 63L
Biology 52
Biology 54, 55, 63/63L, or 78
Two specified courses from PSYC or SOCI or NUTR

Alternate Second Major
Physical education students selecting to complete a sec-
ond alternative major from the list below must also take
PHYE 75 and 76, in addition to the Physical Education core
requirements.
Afro-American Studies, Anthropology, Art History,
Biology, Chemistry, Dramatic Art, East Asian Studies,
Economics, English, French, Geography, Geology, German,
History, Latin, Mathematics, Physics, Political Science,
Psychology, Sociology, Spanish. Students should consult
with the Associate Dean for Students in the School of
Education before selecting an alternate second major.

Courses for Undergraduates
CFDS 60 Infant/Toddler Assessment and Intervention (3). Prerequisites,
CFDS 50 and permission of instructor. Program models and
curricula/intervention strategies for working with infant and toddlers will
be stressed. Program models and strategies for working with families will
be emphasized. Spring, Staff.

CFDS 61 Preschool/Kindergarten Assessment and Teaching Strategies
(4). Prerequisites, CFDS 50, 60, and permission of instructor. Linkage
between developmental theories, assessment, and classroom practices for
children ages 3 to 5 will be stressed. Implementation of developmentally
and culturally appropriate assessment and teaching strategies for young
children with and without disabilities will be covered. Fall, Jarvis-Samuels,
Odom.

CFDS 82 Senior Interdisciplinary Seminar (2). Prerequisites, CFDS 60, 80,
81, 90 and permission of instructor. Seminar should be taken with CFDS 60
and 90 to provide a forum for discussion of recommended practices in stu-
dents' infant/toddler field placements. Students will develop skills in ser-
vice coordination for families of young children. Emphasis on meeting the
health, social, and educational needs of families of young children through
interagency coordination will be stressed. Fall, Staff.

CFDS 83 Senior Interdisciplinary Seminar (4). Seminar should be taken
with CFDS 92, Teaching Internship in Preschool and Kindergarten
Programs. Semester provides a forum to discuss and learn recommended
practices related to their preschool and kindergarten placements. Spring,
Staff.
CDFS 90 Infant/Toddler Internship (4). Prerequisites, CDFS 50, CDFS 60 taken same semester and permission of instructor. Field-based internship for infants and toddlers in inclusive settings for children with and without disabilities with periodic home visits. Students also should be enrolled in CDFS 60. Fall. Staff.

CDFS 92 Clinical Internship: Preschool and Kindergarten (8). Prerequisites, CDFS 50, 60, 61, 90 and permission of instructor. Supervised internships with typically and atypically developing children in preschool and kindergarten settings for forty hours per week over sixteen weeks. Spring. Staff.

EDUC 4* Arts and Crafts for Elementary Teachers (3). Introduction to developmental aspects of children's art and to the application of art materials and processes to teaching at the elementary and intermediate levels. Fall. Staff.

EDUC 12* Mathematics in Elementary Education (3). Provides a study of the mathematics content of elementary programs, including materials, techniques, and teaching aids. Prerequisite, one college-level math course. Must be taken in the fall of the senior year. Fall. Balew, Friel.


EDUC 41 Education in American Society (3). Primarily for students not majoring in education and may be taken by education majors only as an elective. A reflective examination of beliefs and attitudes associated with (1) the historical, philosophical, sociological, political, and economic forces affecting education and schooling in the United States; (2) the structure and function of the school system; and (3) current issues and trends in American schooling and education. Fall, spring, and summer. Unks.

EDUC 45* Media and Technologies for Learning (1.5). An introduction to the use of media and technology to create quality learning environments. Offers hands-on experience with personal computers, video, multimedia, and telecommunications as well as guidelines for finding and evaluating media and technology products. Fall and spring. DeWert, Goldstein.

EDUC 51* Teaching Reading and the Related Language Arts (K-6) (4). A survey course for K-6 majors on the nature of reading and other language arts. In addition to lectures, students work with elementary-level pupils at a local public school. Required of all K-6 majors and must be taken in the fall of the senior year. Fall. Cunningham, Fitzgerald, Spiegler.

EDUC 54* Social Concepts and Problems in American Education (3). Prerequisite, EDUC 55 or 56. Basic course in the history and sociology of education for undergraduate students majoring in teacher education. Reviews major concepts of educational foundations and educational practice. Elementary education majors must take in the spring of the junior year. Fall and spring. Unks, Noblit.

EDUC 59* Child Development (4). Theories of child development and empirical research on child behavior, applied to the school setting at the early childhood and intermediate levels. Must be taken in the fall of the junior year. Fall. Meece, Wilkerson.

EDUC 56* Adolescent Development (4). Theories of adolescent development and empirical research on adolescent behavior, applied to the middle grades and secondary levels. Fall and spring. Coop, Meece.

EDUC 57 Introduction to Music Education (2). An introduction to the historical and philosophical foundations of music education in the United States, and the role of the music teacher in the context of the school. Open to all music majors who have an interest in music education. Fall. Staff.

EDUC 60* Teaching Science in the Elementary School (3). Methods and materials for teaching science will be taught, with an emphasis on inquiry and an integrated unit approach. Fall. Jones.

EDUC 63* Teaching Social Studies in the Elementary School (3). Methods and materials for teaching social studies will be taught, with an emphasis on inquiry and an integrated unit approach. Fall. Brice, Tom.

EDUC 62* Student Teaching in Elementary Grades (6). Prerequisite, EDUC 61. Provides full-time experience in an elementary school classroom under the supervision of an experienced teacher and a University supervisor during ten or more weeks. Spring. Rogers, Wilkerson, staff.

EDUC 63* Health and Physical Education (3). (Teaching.) Open only to seniors in the School of Education or with the permission of the director of Professional Development Schools. Taught six hours per week during the first half of the semester. In this internship program course, time is devoted to the study of appropriate methods and materials of teaching. Spring. Staff.

EDUC 64* Student Teaching Health and Physical Education (6). Prerequisite, EDUC 63. Provides full-time experience in a physical education setting under the supervision of an experienced teacher and a University supervisor during ten or more weeks. Spring. Staff.

EDUC 66* The Teaching Profession (1.5). (Offered concurrently with EDUC 66.) Prerequisite, admission to the Middle Grades Teacher Education program. Students will be initiated into the teaching profession. The course stresses what it is like to be a teacher, with concurrent emphasis on the life of the student and the study of schools. Fall. Staff.

EDUC 66* Planning for Teaching (4.5). (Offered concurrently with EDUC 65.) Prerequisite, admission to the Middle Grades Teacher Education Program. Students will learn basic skills for assessing characteristics of the student related to learning, selecting content for instruction, and planning a lesson. Fall. Vesilind, staff.

EDUC 67* Teaching Skills Laboratory (3). Prerequisites, EDUC 65 and 66. Students will learn to perform a variety of basic teaching skills used by classroom teachers. This course will be conducted primarily as a laboratory course. Spring, White, staff.

EDUC 72* Psychology of Learning (3). This course considers the components of teaching-learning situations, including motivation, teaching-learning strategies, classroom management, and testing and evaluation from a psychological perspective. Elementary education majors must take a special section of EDUC 72 in the fall of their junior year. Secondary and special subjects majors must take the other sections, but may take any semester after admission to the School of Education and before student teaching. Fall. spring, and summer. Rogers, Stuck, White, staff.

EDUC 74* Elementary/Middle Grades General Music Methods (3). This course is designed to acquaint the student with a body of information, principles, and practices in general music education, as well as provide opportunities for the student to assume the role of a general music teacher in a variety of settings. Course open to students in the final semester of the licensure sequence. Spring. Staff.

EDUC 75* Methods and Materials in Instrumental Music (3). This course is designed to acquaint the student with a body of information, principles, and practices in instrumental music education, as well as provide opportunities for the student to assume the role of an instrumental music teacher in a variety of settings. Course open to students in the final semester of the licensure sequence. Spring. Staff.

EDUC 76* Methods and Materials in Choral Music (3). This course is designed to acquaint the student with a body of information, principles, and practices in choral music education, as well as provide opportunities for the student to assume the role of a choral music teacher in a variety of settings. Course open to students in the final semester of the licensure sequence. Spring. Huff.

EDUC 77* Student Teaching Elementary Music (6). Prerequisite, EDUC 74. Provides full-time experience in teaching elementary general music under the supervision of an experienced teacher and a University supervisor during ten or more weeks. Spring. Staff.

EDUC 78* Student Teaching Instrumental Music (6). Prerequisite, EDUC 75. Provides full-time experience in teaching instrumental music under the supervision of an experienced teacher and a University supervisor during ten or more weeks. Spring. Staff.
EDUC 79* Student Teaching Choral Music (6). Prerequisite, EDUC 76. Provides full-time experience in teaching choral music under the supervision of an experienced teacher and a University supervisor during ten or more weeks. Spring. Huff.

EDUC 81* Theory and Practice of Teaching English in the Secondary School (6). In this internship program course, time is devoted to the study of the secondary school and appropriate methods and materials of teaching English. Fall. Henning.

EDUC 82* Student Teaching English (6). Prerequisite, EDUC 81. Provides full-time experience in teaching English under the supervision of an experienced teacher and a University supervisor during ten or more weeks. Fall. Henning, Palmer.

EDUC 83* Methods of Teaching Foreign Languages K-12 (6). Prerequisite, senior majoring in foreign language education. This course is devoted to the appropriate methods and materials for the teaching of foreign languages. Fall. Heining-Boynton, Kubota.

EDUC 84* Student Teaching Foreign Languages K-12 (12). Prerequisite, EDUC 83. This course is devoted to the appropriate methods and materials for the teaching of foreign languages. Spring. Heining-Boynton, Kubota.

EDUC 85* Theory and Practice of the Teaching of Social Studies in the Secondary School (6). In this internship program course, time is devoted to study of the secondary school and appropriate methods and materials of teaching social studies. Fall. Rong, Tom.

EDUC 86* Student Teaching Social Studies (6). Prerequisite, EDUC 85. Provides full-time experience in teaching social studies under the supervision of an experienced teacher and a University supervisor during ten or more weeks. Fall. Rong, Tom.

EDUC 89* Theory and Practice of the Teaching of Mathematics in the Secondary School (6). In this internship program course, time is devoted to study of the secondary school and appropriate methods and materials of teaching mathematics. Fall. Ballew, C. Malloy.

EDUC 90* Student Teaching Mathematics (6). Prerequisite, EDUC 89. Provides full-time experience in teaching mathematics under the supervision of an experienced teacher and a University supervisor during ten or more weeks. Fall. Ballew, C. Malloy.

EDUC 91* Theory and Practice of the Teaching of Science in the Secondary School (6). In this internship program course, time is devoted to study of the secondary school and appropriate methods and materials of teaching science. Fall. Hounshell.

EDUC 92* Student Teaching Science (6). Prerequisite, EDUC 91. Provides full-time experience in teaching science under the supervision of an experienced teacher and University supervisor during ten or more weeks. Fall. Hounshell.

EDUC 93H* Honors Seminar in Education (3). Prerequisite, honors candidate in the School of Education. Integration of critical analysis of selected educational themes, introduction to methods of educational research, and intensive work in skills of reading critically and writing. Required for graduation with honors in education. Spring. Unks.

EDUC 94H* Honors Thesis in Education (3). Prerequisite, EDUC 93H with a grade of "B" or better. Preparation of an honors thesis under the direction of a member of the School of Education faculty and an oral examination on the thesis. Required of all candidates for graduation with honors in education. Fall and spring. Unks.

EDUC 95* Teaching in the Middle Grades (6). Prerequisites, EDUC 65, 66, and 69. Students will learn about the organization and curriculum of the middle grades, reading and writing in the content areas, the methods of teaching in their content areas, and unit planning. Fall. Staff.

EDUC 96* Teaching Internship (12). (Offered concurrently with EDUC 97.) Prerequisites, EDUC 65, 66, 69, and 95. This internship gives students the opportunity to plan instruction and to teach with increasing degrees of responsibility. The internship will be in a school setting under the direct supervision of a classroom teacher. Spring. Staff.

EDUC 97* Seminar on Teaching (3). (Offered concurrently with EDUC 96.) Prerequisites, EDUC 65, 66, 69, and 95. This seminar provides the student an opportunity to reflect on teaching and the teaching profession by integrating knowledge about teaching with observations about teaching made during the internship. Spring. Vesling, Hone.

EDUC 99* The Secondary School (3). This course meets six hours each week during the first half of the semester in which student teaching is done. Required of all secondary teachers majoring in physical education. Deals with the rationale and the practice of secondary education, including curriculum and organization. Spring. Staff.

EDUC 100 Education Workshops (1-3). Prerequisite, permission of the director of Professional Development Schools. Workshops designed around education topics, primarily for licensed K-12 teachers. Summer. Members of the graduate faculty.

EDUC 153* Content-Area Reading and Writing (3). Introductory course that focuses on current theory, research, and issues in the teaching and use of reading and writing in the content area. Fall, spring, and summer. Cunningham, Danielewicz, Palmer, Spiegel.

Graduate Study in the School of Education

The School of Education offers several graduate courses in areas related to Education. Master's degrees for individuals already eligible for teaching licensure are available in Elementary Education and Special Education (Early Intervention and Learning Disabilities). The Master of Arts in Teaching (M.A.T.) program for secondary education (English, Latin, mathematics, science, and social studies) and special subjects, K-12 (French, German, Spanish, and music) admits some students who are not eligible for licensure as well as those who have completed a teacher education program. Students interested in a Master of School Administration must have three years of successful teaching experience. Students wishing to pursue a master's degree in Educational Psychology, School Counseling, or School Psychology, or a Ph.D. in Social Foundations need not be eligible for teaching licensure.

Two doctoral degrees are offered in the School of Education by the Graduate School: the Doctor of Philosophy (Ph.D.), with major in curriculum and instruction, educational organization and policy studies, educational psychology, school psychology, social foundations, and special education; and the Doctor of Education (Ed.D.), with a major in curriculum and instruction and educational leadership. The School of Education itself administers the Doctor of Education (Ed.D.) degree program in educational leadership.

Courses for Graduates and Advanced Undergraduates

Undergraduate students who are not in the School of Education must get the permission of the associate dean for academic programs in order to enroll in these courses.
Curriculum and Instruction

EDCI 115 Principles of Instructional Design (3). Prerequisite, EDUC 72 or EDFO 100. The design and production of instructional materials incorporating goal analysis, learning task analysis, behavioral objectives, entry behavior, criterion tests, instructional strategies, design planning, and formative evaluation. Fall. Hanum.

EDCI 120 Early Childhood Education (3). Considers the development of early childhood education, growth and development characteristics of young children, and the organization and administration of programs and services for young children. Fall and summer. Brice, Day.

EDCI 121 The Curriculum of Early Childhood Education (3). Relates the objectives of early childhood education to curricula in language development, science, social living, numbers, music, art, and dramatic play. Spring and summer. Brice, Day.

EDCI 185 Elementary General Music Methods (3). Designed to provide students with knowledge of the structure, scope, and sequence of instruction in elementary general music. As demand warrants. Staff.

EDCI 186 Research in Music Education (3). Students will gain familiarity with important ideas and concepts concerning research and with the potential, limitations, and applications of research methodologies. Fall. Staff.


EDCI 188 The Teaching of Applied Music: Vocal (MUSC 188) (3). Physiological and acoustical analysis of the singing act; phonics and phonetics as applicable to singing English and foreign languages, and vocal exercises and techniques suitable for classroom and choral rehearsal. As demand warrants. Music Department staff.

EDCI 189 Marching Band Procedures (3). Designed to provide students with the knowledge of the organization, planning, and administration of a marching band program. Students will also acquire the skills of drill writing and show designing. As demand warrants. Music Department staff.

EDCI 190 Middle Grades General Music Methods (3). Designed to provide students with knowledge of the structure, scope, and sequence of instruction in middle grades general music. As demand warrants. Staff.

EDCI 199 Independent Study in Curriculum and Instruction (1-3). Prerequisite, permission of instructor. May be repeated for a maximum of six hours of credit. Readings and research under the direction of a member of the program. Fall and spring. Staff.

Education Foundations

EDFO 100 Psychological Foundations of Education (3). Describes the nature and relevance of educational psychology, sources and interpretation of educational and psychological data; components of teacher-learning situations, evaluation, and reporting. Summer. Staff.

EDFO 101 Psychology of Childhood and Adolescence (3). Theories of child and adolescent development plus research findings which aid in the understanding of human behavior and development. Fall and summer. Coop. Meecy.

EDFO 103 Psychology of Adult Learning, Interaction of Values, Personality, and Cognition (3). Studies the interaction of personality, motivation, values, attitudes, and cognition of students from late adolescence through middle age. Fall. Frienson.

EDFO 106 Educational Measurement and Evaluation (3). Identifies the basic concepts in measurement and evaluation, describes the role of evaluation in curriculum construction and revision, and describes the development and use of teacher-constructed tests. (Not a part of the doctoral research sequence.) Fall and summer. Staff.


EDFO 121 Seminar in Social Foundations of Education (1). Topics in the social and philosophical context of American public education. Fall. Staff.


EDFO 180 Statistical Analysis of Educational Data I (4). Descriptive and inferential statistics for educational research, including an introduction to fundamentals of research design and computer data analysis. Fall and summer. Ware.

EDFO 190 Educational Applications of Microcomputers (3). Prerequisite, permission of instructor. An introduction to educational applications of microcomputers, including introductory BASIC programming and an overview of CAI, CMI, word processing, software evaluation, and teacher utility programs. As demand warrants. Stuck, Ware.

EDFO 199 Independent Study in Human Development and Psychological Services (1-3). Prerequisite, permission of instructor. May be repeated for a maximum of six hours of credit. Reading and research under the direction of a member of the program whose interests coincide with those of the student. Fall and spring. Staff.

Specialized Professional Education

EDSP 130 Introduction to Exceptional Children (3). A comprehensive survey of giftedness and of various handicapping conditions, mental retardation, emotional disturbance, learning disabilities, speech impairment, deafness, blindness, orthopedic impairment, and neurological impairment. Fall, spring, and summer. Staff.

EDSP 132 The Gifted Child in School and Society (3). The nature of giftedness and creativity; characteristics of gifted and creative children; approaches to encouraging the development and utilization of their abilities. Spring and summer. Gallagher.

EDSP 135 Psychology of Mental Retardation (3). Study of the research related to the psychological and sociological aspects of educationally handicapping conditions and of the children who manifest those conditions. Fall and summer. Wiering.

EDSP 141 Methods of Teaching Speech to the Hearing-Impaired (SPHS 203) (3). Reviews general principles of speech development, underlying problems in speech acquisition by moderately to profoundly hearing-impaired individuals, deviant spoken language, and practical and theoretical aspects of evaluating and establishing speech. As demand warrants. Staff.

EDSP 143 Introduction to Communication Disorder (SPHS 183) (3). Explores the etiology, epidemiology, assessment, and educational implications of speech and language disorders. Fall, spring, and summer. Lubker.

EDSP 144 Foundations of Phonological and Voice Deviations (SPHS 184) (3). Prerequisite, SPHS 130 or its equivalent. First semester of a two-course offering in evaluation, analysis and measurement (assessment), modification of behaviors, breakdown of process in speech disorders, with emphasis on voice and articulation disorders. As demand warrants. Staff.

EDSP 145 Phonetics (3). The recognition, analysis, production, and transcription of the sounds of the English language using the international phonetic alphabet. As demand warrants. Staff.

EDSP 179 Management of Learning Environments (3). Emphasis on effective behavior management and applied behavior analysis techniques for intervening in the environments of exceptional children to increase learning. Fall. Staff.
EDSP 199 Independent Study in Educational Leadership (1-3). Prerequisite, permission of instructor. May be repeated for a maximum of six credit hours. Reading and research under the direction of a program faculty member. Fall, spring, and summer. Staff.

School of Information and Library Science

BARBARA B. MORAN, Dean

The undergraduate minor in Information Systems provides students with an understanding of computing, networking, multimedia, electronic information resources, and the Internet that can be used to solve problems in a variety of contexts. The minor complements the student’s major field of study by offering knowledge, skills, and experience using these technologies and will require fifteen hours of credit to complete. The minor is designed for undergraduate students who wish to develop knowledge and skills in the use and design of information systems.

Undergraduate students who have completed at least the first semester of their sophomore year may apply for admission to the minor program. Participation is limited, and admission will be competitive. Criteria for admission include the candidate’s academic record, work and extracurricular experience, and substantive thinking about the role of information systems in his or her major field. Candidates from a variety of disciplinary backgrounds are sought. Level of prior computer experience is not a criterion for admission.

Further information about the program (purpose and course requirements) and an application form are available at http://ils.unc.edu/isminor. Information and applications also can be obtained from SILS, 100 Manning Hall, CB #3360, 962-8366.

Requirements for the Information Systems Minor

The undergraduate minor in Information Systems requires that students take fifteen credits of approved courses. Students receiving the minor must take INLS 50, 60, 70 and 80, described below. In addition, the student will take the remaining three credits as an elective. The elective may be a course in his or her own discipline, INLS 90, an INLS 100-level course or simply a course of use/interest to the student that is relevant to the minor. The elective must be approved by SILS.

Note: The prefix for all School of Information and Library Science courses is INLS.

When a co- or prerequisite is listed for a course, it may be assumed that an equivalent course taken elsewhere or permission of instructor also fulfills the prerequisite or corequisite. The course instructor must approve the equivalency of the substitute course.

Course Descriptions

50 Introduction to Computing (3). Study of the functional capabilities of major classes of microcomputer application software, the computing needs of information agencies, and selected current topics in computing. Viles.

60 Information Systems Analysis and Design (3). Prerequisite or corequisite: INLS 50. Analysis of organizational problems and how information systems can be designed to solve those problems. Application of database and interface design principles to the implementation of information systems. Wildemuth.

70 Organizing and Retrieving Information (3). Prerequisite: INLS 50. Methods for organizing and retrieving information, including existing databases and the construction of a database using a database management software package. Viles, Wildemuth.

80 Data Communication (3). Prerequisite: INLS 50. Examines the functions of data communication networks such as the Internet for communication, accessing remote resources, and information searching and retrieval. Explores emerging multimedia applications and their potential uses. Dempsey, Newby, Viles.

90 Independent Study in Information Systems (1-3). Study by an individual student on a special topic under the direction of a specific faculty member. A prospectus/plan for the work is required in advance of registration. Staff.

Courses for Graduates and Advanced Undergraduates

The following courses are also available to advanced undergraduates (juniors and seniors), space permitting. For specific information about the school’s graduate program requirements, consult the School of Information and Library Science home page <http://ils.unc.edu> or the printed catalog, which can be obtained in the administrative offices in 100 Manning Hall.


110 Selected Topics (3). Members of the faculty. Exploration of an introductory-level special topic not otherwise covered in the curriculum. Previous offering of these courses does not predict their future availability; new courses may replace these. Courses offered during 1996-97 include:

110 (70) Introduction to Hypermedia. Christensen.

110 (76) Introduction to Communication Networks. Dempsey.

110 (78) Information Systems Analysis and Design. Barreau. (Now INLS 60)

110 (79) Organizing and Retrieving Information. (Now INLS 70) Mangrum.

111 Information Resources and Services I (3). Analysis, use, and evaluation of information and reference systems, services, and tools with attention to printed and electronic modes of delivery. Provides a foundation in search techniques for electronic information retrieval, question negotiation, and interviewing. Gellop, Tibbo.

115 Natural Language Processing (Computer Science 171) (3). Prerequisite: COMP 14 or COMP 15. Statistical, syntactic, and semantic models of natural language. Tools and techniques needed to implement language analysis and generation processes on the computer. Haas.

120 History of Children’s Literature (3). A survey of children’s literature in English from the Middle Ages through the nineteenth century. Staff.

122 Young Adult Literature and Related Materials (3). A survey of print and nonprint library materials particularly suited to the needs of adolescents. Staff.

123 Children’s Literature and Related Materials (3). Survey of literature and related materials for children with emphasis on twentieth-century authors and illustrators. Staff.
131 Management of Information Agencies (3). An introduction to management in libraries and other information agencies. Topics to be studied include planning, budgeting, organizational theory, information sources for managers, staffing, leadership, organizational change, and decision making. Daniel.

150 Organization of Information (3). Introduction to the problems and methods of organizing information, including information structures, knowledge schemas, data structures, terminological control, index language functions, and implications for searching. Solomon.

151 Organization of Materials I (3). Prerequisite or corequisite: INLS 50. An introduction to the problems of organizing information and collections of materials. Formal systems for cataloging and classifying are studied. Saye.

153 Resource Selection and Evaluation (3). Identification, provision, and evaluation of resources to meet primary needs of clientele in different institutional environments. Staff.

161 Non-numeric Programming for Information Systems Applications (3). An introduction to computer programming for library operations and information retrieval applications. Losee.

162 Systems Analysis (3). Introduction to the systems approach to the design and development of information systems. Methods and tools for the analysis and modeling of system functionality (e.g., structured analysis) and data represented in the system (e.g., object-oriented analysis) are studied. Haas, Sonnenwald, Wildemuth.

165 Records Management (3). Introduces the principles of records center design, records analysis and appraisal, filing systems, reprographics and forms, reports, and correspondence management. Legal issues and the security of records are also covered. Staff.

170 Applications of Natural Language Processing (Computer Science 170) (3). Prerequisite: COMP 14, 15, or graduate standing in Information and Library Science. Study of applications of natural language processing techniques and the representations and processes needed to support them. Topics include interfaces, text retrieval, machine translation, speech processing, and text generation. Haas.

172 Information Retrieval (Computer Science 172) (3). Prerequisite: INLS 50, COMP 14, or COMP 15. Study of information retrieval and question answering techniques, including document classification, retrieval and evaluation techniques, handling of large data collections, and the use of feedback. Losee, Viles.


176 Information Models (3). An introduction to models and modeling techniques used in information science and their application to problems and issues in the field. Haas.

180 Communication Processes (3). Examines the social and technological processes associated with the transfer of information and includes discussions of formal and interpersonal communication channels. Daniel, Sonnenwald, Wildemuth.

181 Internet Applications (3). Prerequisite: INLS 50. Introduction to Internet concepts, applications, and services. Introduces the TCP/IP protocol suite along with clients and servers for Internet communication, browsing, and navigation. Examines policy, management, and implementation issues. Barker, Dempsey, Rhine, Viles.

182 Introduction to Local Area Networks (3). Prerequisite: INLS 50. Introduction to local area network hardware, topologies, operating systems, and applications. Also discusses LAN management and the role of the network administrator. Rankin.

184 Protocols and Network Management (3). Prerequisite: INLS 181 or INLS 182. Network protocols and protocol stacks. Included are discussions of protocol classes, packet filtering, address filtering, network management, and hardware such as protocol analyzers, repeaters, routers, and bridges. Gogan.

186 TCP/IP Networking and Network Programming (Computer Science 143) (3). Prerequisites: (INLS 161, 184) or COMP 142. In-depth examination of the algorithms underlying the TCP/IP Internet protocol suite, including performance issues and operational problems. Introduction to client/server network programming (in C/C++/Java) using the standard BSD sockets interface. Dempsey.

The School of Journalism and Mass Communication

RICHARD R. COLE, Dean

Professors

Adjunct Professor
James H. Shumaker.

Associate Professors

Assistant Professors
Debashis Aikat, Patricia A. Curtin, Carol J. Pardun, Lucila Vargas.

Lecturers
J. Ferrel Guillery, Paul M. Jones.

Faculty Emeriti
John B. Adams, Kenneth R. Byerly, James J. Mullen, Carol Reuss, Stuart W. Sechriest.

Additional information is available at the school's World Wide Web site: <http://sunsite.unc.edu/jomc/>.

The School of Journalism and Mass Communication was founded as the Department of Journalism in 1924 and became the School of Journalism in 1950. Forty years later, it assumed its present title. The school offers a course of study leading to the Bachelor of Arts in Journalism and Mass Communication. Students concentrate their studies in the junior and senior years.

For seventy years, the school has built an impressive record of service. Through excellent teaching, research, and public service, through its students, faculty, alumni, and
friends, the school has been a force in journalism-mass communication education and the mass media of North Carolina and beyond. It is the only school of journalism-mass communication in North Carolina, and in any rating of mass communication schools virtually always ranks in the top five nationally and sometimes as the top one.

Today the school’s 6,100 alumni are active in every aspect of journalism and mass communication. Many are trend-setting newspaper executives. Others hold high positions with international news agencies, magazines, broadcasting companies, and advertising agencies; in public relations, business journalism, photojournalism, graphic design; and in research, government, education, and industry.

The school has an excellent reputation, and relations with the mass media are first-rate. The primary role of the school has been and continues to be the education of young people for professional careers in mass communication in North Carolina and beyond.

Accreditation

The school has been nationally accredited since 1958. In 1978, the school received the first unit-wide accreditation in the country granted by the official accrediting agency, the Accrediting Council on Education in Journalism and Mass Communications. When the school was last accredited in 1997, the national team stated that the school is "arguably the best all-around program in the country." The school is also active in the Association of Schools of Journalism and Mass Communication.

Scholarships, Placement

Several special scholarships are available to journalism-mass communication majors and to students transferring into the school. For information, write the associate dean of the school by December 1 for the following academic year.

The school operates a Career Services Office and constantly seeks to fit the right graduating senior — or journalist or someone else in mass communication with years of experience—with the right job. In addition, the school works closely with the mass media in North Carolina and other states on internship programs. All students are strongly encouraged to obtain internships in news-editorial journalism, advertising, photojournalism, graphic design, public relations, broadcast journalism, business, or other areas.

Student Activities

Students are urged to work on The Daily Tar Heel, the UNC-Chapel Hill student newspaper, or on the student newspaper of the institution they attend for their first two years of college. Experience in other media is encouraged throughout the student’s years on campus. Publications include Black Ink, The UNC Journalist and Jafa News, laboratory publications of the school, serve as excellent print outlets.

Students are also encouraged to join appropriate organizations in journalism and mass communication, including campus chapters of the Society of Professional Journalists, American Advertising Federation, Public Relations Student Society of America, Carolina Association of Black Journalists (affiliated with the National Association of Black Journalists), Radio-Television News Directors Association of the Carolinas, Student Society of Newspaper Design, and National Press Photographers Association.

Undergraduate Program

The school prepares men and women for careers in journalism and mass communication by offering an academic program that provides a basic liberal arts education, an understanding of the responsibilities of a free press in a democratic society, and a fundamental knowledge of journalistic and mass communication techniques and substance.

The philosophy that guides the school is that journalists and communicators must understand the political, social, economic, and cultural forces that operate within society. For this reason, students acquire a background in the humanities, social sciences, and natural sciences while preparing themselves for journalism-mass communication careers. About one-fourth of the credit hours earned toward the Bachelor of Arts in Journalism and Mass Communication are in journalism-mass communication (JOMC) courses. The balance of each student’s program is expected to provide the broad education necessary for those who plan careers in mass communication.

The school recognizes its responsibility to the state of North Carolina to prepare men and women for positions on newspapers and other media in the state. Its undergraduate program, therefore, includes technique courses in sufficient number to provide its graduates with entry-level skills for reporting, editing, advertising, photojournalism, graphic design, public relations, and other positions on daily and nondaily newspapers, magazines, broadcast stations, and other media.

Admissions

The school is one of the undergraduate units of the University. Others are the General College, the College of Arts and Sciences, the Kenan-Flagler Business School, and the School of Education. Students are enrolled in the General College during their first two years, after which they may transfer to the school or one of the other units. (Students may take JOMC courses in the freshman and sophomore years.) School faculty members serve as General College advisers to help freshmen and sophomores select appropriate courses.

Undergraduate admissions to UNC-Chapel Hill are handled by the University’s Undergraduate Admissions Office, and requests for information and application forms should be sent to that office. The Undergraduate Admissions Office will also advise students on the proper freshman and sophomore courses to take in preparation for junior-year transfer to Chapel Hill from other campuses. The school will normally accept only six credit hours of journalism-mass communication courses taken at other institutions and requires students to pass exemption exams to receive credit for certain basic courses.
Students are admitted to the school when they attain junior standing and have completed the requirements of the General College on the Chapel Hill campus or have earned grades of C or better in equivalent courses at other recognized institutions. To qualify for admission from the General College or from another UNC-Chapel Hill department or school, students must have earned an overall quality-point average of 2.4 or better in all course work.

Because the University limits the number of transfer students from other institutions, applicants compete for admission to the school on the basis of quality-point averages and other academic credentials, and on such matters as commitment to a career in journalism or mass communication and letters of recommendation. The Office of Undergraduate Admissions makes the final decision on admitting transfer students.

All students must pass the school’s spelling and grammar examination before enrolling in JOMC 53 or JOMC 171. The examination is given several times each year. Off-campus transfer students take the examination during orientation.

Pre-Transfer Advising

Students are urged to visit the school in the freshman or sophomore year to meet with faculty members and plan a sound foundation for their professional program. Pre-journalism-mass communication students are also invited to participate in activities of the school.

Students may take JOMC 53 in the first semester of their sophomore year—provided they have passed the school’s spelling and grammar examination. Two classes, JOMC 11, “The World of Mass Communication,” and JOMC 15, “Future Vision: Exploring the Visual World,” are open to freshmen and sophomores. Sophomores who have completed appropriate prerequisites, if any, may also take JOMC 21, 50, 54, 56, 57, 58, 80, 85, 111, 112, 115, 130, 140, 141, 142, 144, 145, 146, 160, 164, 170, and other courses. Students in the advertising sequence should take JOMC 170 in their sophomore year or as soon as possible in their junior year.

Special Requirements

Because students must use computers to complete assignments—often under deadline conditions—they must have good keyboard skills at the time of admission to the school. It is useful, although not essential, that students be familiar with word-processing software.

Students are expected to have a solid foundation in spelling, grammar, punctuation, and other writing skills before they enter the school. In line with these expectations, the school requires that students score at least sixty percent on a spelling and grammar examination before they take JOMC 53, “Newswriting,” or JOMC 171, “Advertising Copy and Communication.” Further, students must score at least seventy percent on the spelling and grammar examination as a condition for graduation. The examination is administered several times a semester and during the summer. Spelling and grammar scores become part of the students’ records.

Internship Programs

The school awards no academic credit for internships, but strongly encourages students to obtain internships—primarily in the summer—because they provide invaluable professional experience. News-editorial, advertising, photojournalism, graphic design, broadcast news, public relations, business, and other internships are possible. Many newspapers in North Carolina and other states send editors or other executives to the school to interview students for internships.

The practicum course (JOMC 55) offers students an opportunity to do supervised professional work during a regular semester for three hours of credit. The school gives no credit for full-time summer internships; students should receive salaries for such work.

When Special Studies 91P or other courses are an internship, the credit does not count toward a major in journalism-mass communication. Prior permission is required from the school for other special studies courses.

Honors Program

An honors program is available to students who have demonstrated their ability to perform distinguished work. Admission to the honors courses (98 and 99) is based upon an average of 3.5 or better in the major and overall, recommendation by a faculty member in the school, and approval by the director of the honors program. Students successfully completing the program are graduated “with honors” or “with highest honors.”

Phi Beta Kappa

Journalism and mass communication students are eligible for election to Phi Beta Kappa, the national scholarship fraternity founded at the College of William and Mary in 1776. The Alpha of North Carolina chapter was founded in 1904. Students must satisfy two criteria for election to Phi Beta Kappa. One, they must have completed at least 105 semester academic course hours, including at least forty-five semester course hours of graded course work taken at UNC-Chapel Hill, with a quality-point average of at least 3.650. Two, they must have completed at least ninety semester hours of course work in the departments and curricula of the College of Arts and Sciences (or their equivalents accepted for transfer credit from other institutions). If they meet those criteria, they must apply for election by submitting transcripts from UNC-Chapel Hill and other institutions to the University’s Phi Beta Kappa adviser by September 15 for fall initiation and January 30 for spring initiation.

Degree Requirements

UNC-Chapel Hill Degree Requirements

Undergraduates must meet the following general requirements for graduation:

- A distribution of courses during the first two years that meets General College requirements.
- A minimum of 120 credits (not including physical education activity courses) with a quality point average of 2.0.
Journalism-Mass Communication Requirements in All Sequences

A sequence in the school is a concentration in news-editorial journalism, electronic communication, visual communication, public relations, or advertising. (The visual communication sequence has options for photojournalism or graphics.) Each sequence has some courses that are required specifically. Some courses are required for all majors in the school.

- Students must complete a minimum of twenty-seven credits in journalism-mass communication with a quality-point average of 2.0 or better. A grade of D in a journalism-mass communication course required in a sequence will not be counted in the minimum number of journalism-mass communication credits required for graduation.

- Of the basic 120 hours for graduation, at least ninety hours must be outside journalism-mass communication. Within these ninety hours, at least sixty-five must be in Arts and Sciences. Beyond the basic 120 hours for graduation (not counting the 1-hour PHYA activity courses), students may take as many JOMC courses as they like. Students who wish to take more than thirty credits in JOMC may count one or two of the following as courses in the ninety hours outside JOMC but not in the 65 Arts and Sciences credits: 11, 111, 112, 115, 140, 141, 142, 144, 145, 146, 160. Please note: JOMC 55 may not be counted in the minimum of twenty-seven credit hours required in journalism-mass communication for graduation; it must be beyond that.

- To gain knowledge of four important subjects—economics, United States government and politics, state and local government and politics, and recent United States history—students in the school must take specified courses to satisfy certain General College and junior-senior perspective requirements:

General College Perspectives

- Social sciences: Students must take ECON 10 (economics) and must choose from among these POLI courses: 41, 70 and 75 (United States government and politics).

- History: To satisfy the Western History requirement, students must take HIST 81H or HIST 22 (recent U. S. History).

Junior-Senior Perspectives

- Social sciences: Students must take one of these POLI courses: 42, 43, 46, 102, 134, 135 or 136 (state and local government and politics).

JOMC students are advised to take STAT 11, "Basic Concepts of Statistics and Data Analysis," to satisfy the second mathematical sciences requirement (in addition to MATH 10) for General College.

Students are expected to gain a depth of knowledge of a topic outside the school. At a minimum, they must take an outside concentration of at least three courses (minimum of nine credit hours) in another department or school, and courses used to satisfy General College requirements cannot be used to satisfy that requirement. Students may also satisfy the outside requirement by completing a minor or second major in another department or school. The completion of a minor or second major must be certified by the College of Arts and Sciences or the Kenan-Flagler Business School, and students should consult advisers in the chosen discipline. The degree earned is Bachelor of Arts in Journalism and Mass Communication. Second majors and minors are noted on the student's final transcript but not on the diploma. Sequences are not noted on the transcript or diploma.

Other requirements:

- A grade-point of at least 2.0 in JOMC courses.
- A passing score on the school's spelling and grammar examination.
- All five General Education Perspectives for juniors and seniors. JOMC courses may not be used to satisfy these perspectives requirements. One course from a minor or second major may satisfy a junior-senior perspective requirement.
- The Special Studies 91P course offered for internship credit at UNC-Chapel Hill will not count toward a major in JOMC.

Some JOMC courses require permission of the instructor of the school. Students should check in the school office (Howell Hall 100) for current requirements.

Students who plan to complete degree requirements in summer school should be aware that low enrollments might force the school to cancel certain courses or sections during either or both summer sessions. The school cannot guarantee that courses needed to satisfy a student's degree requirements will be offered during summer school.

News-Editorial Sequence Requirements

Five core courses are required:

- JOMC 50 (2 credits), Electronic Information Sources
- JOMC 53 (4 credits), Newswriting
- JOMC 54 (3 credits), Reporting
- JOMC 57 (3 credits), News Editing
- JOMC 164 (3 credits), Introduction to Mass Communication Law and Ethics

In addition, students must take at least two courses (including at least one course at the 100-level) from among the following craft courses: 21, 56, 58, 80, 85, 121, 154, 156, 157, 180, 181, 185, 186, 187, 191 (when it is a craft course). In addition, students must take at least two courses from among the following conceptual courses: 111, 112, 115, 140, 141, 142, 144, 145, 146, 160.

Electronic Communication Sequence Requirements

Students in the electronic communication sequence must take the following six core courses:
JOMC 21 (3 credits), Broadcast Journalism
JOMC 50 (2 credits), Electronic Information Sources
JOMC 53 (4 credits), Newswriting
JOMC 54 (3 credits), Reporting
JOMC 121 (3 credits), Advanced Broadcast News Reporting
JOMC 164 (3 credits), Introduction to Mass Communication Law and Ethics

Students in the electronic communication sequence must take at least two courses from among these courses: 111, 112, 115, 140, 141, 142, 144, 145, 146, 160.
JOMC 120 (3 credits), Electronic Field Production and Editing, is recommended as an elective.

Visual Communication Sequence Requirements

Students in the visual communication sequence must take the following six core courses:

JOMC 50 (2 credits), Electronic Information Sources
JOMC 53 (4 credits), Newswriting
JOMC 54 (3 credits), Reporting or
JOMC 57 (3 credits), News Editing
JOMC 80 (3 credits), Beginning Photojournalism
JOMC 85 (3 credits), The World of Graphic Design
JOMC 164 (3 credits), Introduction to Mass Communication Law and Ethics

In addition, students must take at least one conceptual course selected from the following: 111, 112, 115, 140, 141, 142, 144, 145, 146, 160.

Graphics Option

Students choosing the graphics option must take the following courses in addition to the above:

JOMC 185 (3 credits), Publication Design
JOMC 186 (3 credits), Promotion Design

Photojournalism Option

Students choosing the photojournalism option must take the following courses in addition to the above:

JOMC 180 (3 credits), Advanced Photojournalism
JOMC 181 (3 credits), Documentary Photojournalism

Public Relations Sequence Requirements

Students in the public relations sequence must take the following seven core courses:

JOMC 50 (2 credits), Electronic Information Sources
JOMC 53 (4 credits), Newswriting
JOMC 57 (3 credits), News Editing
JOMC 130 (3 credits), Principles of Public Relations
JOMC 131 (3 credits), Case Studies in Public Relations
JOMC 132 (3 credits), Public Relations Writing
JOMC 164 (3 credits), Introduction to Mass Communication Law and Ethics

In addition, students must take at least one of the following core courses: 21, 54, 56, 58, 80, 85, 133, 154, 156, 157, and 191 (when it is a core course). In addition, students must take at least one of the following conceptual courses: 111, 112, 115, 140, 141, 142, 144, 145, 146, and 160. JOMC 170 and JOMC 133 are highly desirable as electives.

Students in the public relations sequence should select courses outside the school in consultation with their advisors, to fulfill the recommendations of the Commission of Public Relations Education of the Association for Education in Journalism and Mass Communication, the Public Relations Society of America, the International Association of Business Communicators, and the Foundation for Public Relations Research and Education.

Advertising Sequence Requirements

Six core courses are required:

JOMC 50 (2 credits), Electronic Information Sources
JOMC 53 (4 credits), Newswriting
JOMC 164 (3 credits), Introduction to Mass Communication Law and Ethics
JOMC 170 (3 credits), Principles of Advertising
JOMC 171 (3 credits), Advertising Copy and Communication
JOMC 172 (3 credits), Advertising Media

In addition, students must also take at least two of the following courses: 173, 174, 175, 176, 178, 179, and 191 (when the topic is advertising). Also, at least one course must be taken from the following conceptual courses: 111, 112, 115, 140, 141, 142, 144, 145, 146, 160.

Second Major in Journalism and Mass Communication

Students in the Kenan-Flagler Business School may earn a second major by completing the JOMC requirements (not junior-senior perspectives) for any of the school’s sequence and by attaining a score of at least seventy percent on the school’s spelling and grammar examination. They must apply to the associate dean of the School of Journalism and Mass Communication.

Minor in Journalism and Mass Communication

Students in the College of Arts and Sciences and the Kenan-Flagler Business School may earn a minor in the School of Journalism and Mass Communication.

Participation is limited, and interested students must apply to the associate dean of the School of Journalism and Mass Communication. Students must have a quality-point average of at least 2.4.
Students must choose one of the following tracks and complete at least fifteen credit hours of C grades or higher in courses taken at UNC-Chapel Hill. Students electing this minor may not use JOMC courses to satisfy perspective requirements for the college.

**News-Editorial**
- JOMC 53, Newswriting*
- JOMC 54, Reporting
- JOMC 57, News Editing
- JOMC 164, Introduction to Mass Communication Law and Ethics
- One course from the following:
  - JOMC 154, Advanced Reporting
  - JOMC 156, Magazine Writing and Editing
  - JOMC 157, Advanced Editing

**Advertising**
- JOMC 170, Principles of Advertising
- JOMC 171, Advertising Copy and Communication
- JOMC 172, Advertising Media
- JOMC 173, Advertising Campaigns
- One course from the following:
  - JOMC 174, Sports Marketing and Advertising
  - JOMC 175, Concepts of Marketing
  - JOMC 176, Advanced Advertising Copywriting
  - JOMC 178, Retail Advertising
  - JOMC 179, Advertising Research

**Public Relations**
- JOMC 53, Newswriting
- JOMC 130, Principles of Public Relations
- JOMC 131, Case Studies in Public Relations
- JOMC 132, Public Relations Writing
- JOMC 164, Introduction to Mass Communication Law and Ethics

**Electronic Communication**
- JOMC 21, Introduction to Broadcast Journalism
- JOMC 53, Newswriting
- JOMC 54, Reporting
- JOMC 121, Advanced Broadcast News Reporting
- JOMC 164, Introduction to Mass Communication Law and Ethics

**Visual Communication**
- JOMC 80, Beginning Photojournalism
- JOMC 85, The World of Graphic Design
- JOMC 164, Introduction to Mass Communication Law and Ethics

One of the following pairs of courses:
- JOMC 180, Advanced Photojournalism
- JOMC 181, Documentary Photojournalism
  or
- JOMC 185, Publication Design
- JOMC 186, Promotion Design

**Mass Communication and Society**
Any five of the following:
- JOMC 111, Minorities and Communication
- JOMC 112, The Black Press and United States History
- JOMC 115, Women and Mass Communication
- JOMC 140, Current Issues in Mass Communication
- JOMC 141, Professional Problems and Ethics
- JOMC 142, The Mass Media and United States History
- JOMC 144, Censorship
- JOMC 145, Process and Effects of Mass Communication
- JOMC 146, International Communication and Comparative Journalism
- JOMC 160, Freedom of Expression in the United States

**Information Technologies**
- JOMC 50, Electronic Information Sources
- JOMC 53, Newswriting
- JOMC 125, Cybercasting and Cyberpublishing
- JOMC 126, Multimedia Web and CD Production
- JOMC 164, Introduction to Mass Communication Law and Ethics

**Technical Writing**
- JOMC 53, Newswriting
- JOMC 57, News Editing
- JOMC 85, The World of Graphic Design
- ENGL 33, Scientific Writing
- and one elective course chosen from:
  - BIOL 8, Biology and Man
  - BIOL 10, Plants and Life
  - BIOL 11, Principles of Biology
  - BUSI 150, Organizational Behavior
  - CHEM 11, General Descriptive Chemistry I
  - COMP 14, Introduction to Programming
  - ENVR 51, Environmental Protection
  - PHYS 20, Basic Concepts of Physics
  - PHYS 21, Frontiers of Physics
  - PHYS 37, Science and Society
  - PHYS 38, Energy
  - PHYS 39, Science and the Arts

* Students must earn a score of at least sixty percent on the school's spelling and grammar examination before enrolling in JOMC 53.
Graduate Studies
The school offers an M.A. in mass communication degree and a Ph.D. degree in mass communication. JOMC graduate courses may be used as minor or supplementary courses for the M.A. and Ph.D. in other fields. For further information on the undergraduate or graduate program, write to the dean of the School of Journalism and Mass Communication for the separate JOMC bulletin.

Courses for Undergraduates
11 The World of Mass Communication (3). Overview of mass communication’s vital role in society with discussion of media institutions, theories, practices, professional fields, and effects on society, groups, and individuals. Johnston, staff.

15 Future Vision: Exploring the Visual World (3). Survey of visual communication tools, techniques, and theories, and how they may be used in all areas of the mass media, present and future. Not open to students who have already taken JOMC 80 or 85. Williams.


30 Electronic Information Sources (2). Gathering information from electronic sources, including libraries, government documents, databases, and the Internet. Prepares communicators to conduct research and use material in media-related decisions. Alkait.

53 Newswriting (4). Prerequisites, sophomore standing; passing grade on the school’s spelling and grammar examination; keyboarding skills; permission of school. Study of elements of news stories, writing of leads, organization and writing of various types of news stories. Staff.

54 Reporting (3). Prerequisite, JOMC 53. Exercises in news gathering, interviews, and writing news. Staff.

55 Mass Communication Practicum (3). Prerequisite, JOMC 53 or permission of instructor. Students work with area media and advertising and public relations firms and meet weekly for consultation and evaluation by the faculty adviser. May be taken Pass-Fail only. Shumaker.

56 Feature Writing (3). Prerequisite, JOMC 53. Instruction and practice in writing feature articles for newspapers and magazines. Staff.

57 News Editing (3). Prerequisite, JOMC 53 or permission of instructor. Study and practice in copyreading, headline writing, proofreading; with attention given to printing terminology, page makeup, type structure, computer use in editing, and analysis of newspapers. Cloud, Mann.

58 Editorial Writing (3). Prerequisite, JOMC 53. Practice in writing editorials for daily and nondaily newspapers. Shumaker.

80 Beginning Photojournalism (3). Permission of the school. Students photograph general news events, sports, features and other standard newspaper subjects while learning the basic visual and technical aspects of photojournalism. Beckman, Williams.


97 Individual Study (3). Permission of instructor. An individual readings and problems course to be directed by a faculty member in whose field of interest the subject matter lies. Staff.

98 Introductory Honors Course (3). Permission of instructor. Required of all students reading for honors in journalism. Shaw.

99 Honors Essay Course (3). Permission of instructor. Required of all students reading for honors in journalism. Shaw.

Courses for Graduates and Advanced Undergraduates
102 Mass Communication Education in High School (3). Prerequisite, graduate standing. Readings, discussion, projects fostering excellence in teaching journalism-mass communication in the high school, from philosophy and practice to professional skills. Phillips.

111 Minorities and Communication (3). An examination of racial stereotypes and minority portrayals in United States culture and communication. Emphasis is on the portrayal of Native Americans, African Americans, Hispanics, and Asian Americans in the mass media. Amana.


115 Women and Mass Communication (WMST 115) (3). An examination of women as media producers, subjects, and audiences with a focus on current practices and possibilities for change. Johnston, Vargas.

120 Electronic Field Production and Editing (3) Prerequisites, JOMC 21, 53, 54, and permission of instructor. Project-based, hands-on advanced video production course giving close attention to refining creative and technical skills while preparing media programs. Students create and produce professional quality video projects. Simpson.

121 Advanced Broadcast News Reporting (3). Prerequisite, JOMC 21. Examination and application of in-depth broadcast news reporting techniques, especially investigative reporting, special events coverage, and the documentary. Students film and produce radio and television programs of actual news events. Bittner, Elam.

130 Principles of Public Relations (3). Prerequisite, JOMC 53. Internal and external public relations concepts and practices for businesses and other organizations, with emphasis on identification and analysis of their publics and design, execution, and assessment of appropriate communication as strategies. Straughan, Curtin, Pardun.

131 Case Studies in Public Relations (3). Prerequisite, JOMC 130. Analysis of public relations practices, including planning, communication, evaluation exercises; management responsibilities. Straughan, Curtin.

132 Public Relations Writing (3). Prerequisites, JOMC 53 and 130. Education and practice in communication skills required of public relations practitioners. Straughan, Curtin, Elliot.

133 Corporate Video Communication (3). Prerequisite, JOMC 130. Introduction to the use of video as a means of communication with a variety of an organization’s publics, both internal and external. Simpson.


141 Professional Problems and Ethics (3). Intensive study of professional and ethical issues and problems facing the mass media and their employees in relation to modern society. Meyer, staff.

142 The Mass Media and United States History (3). An examination of the development of the mass media in the context of history. Emphasis is on major developments and trends within a chronological framework. Blanchard, Shaw.

144 Censorship (3). Its history, conflicting philosophies and practice through politics, government, ethnicity, religion, pressure groups, the media, and the law with emphasis on events and personalities. Stone.

145 Process and Effects of Mass Communication (3). Mass communication as a social process, incorporating literature from journalism, social psychology, sociology, political science, history. To acquaint students with factors in message construction, dissemination, and reception by audiences. Brown, Shaw.
146 International Communication and Comparative Journalism (POLI 146, COMM 155) (3). Development of international communication; the flow of news and international propaganda; the role of communication in international relations; communication in the developing nations; comparison of press systems. Stevenson, Vargas.

154 Advanced Reporting (3). Prerequisites, JOMC 53 and 54. Rigorous, in-depth instruction and critiques of students' news and feature assignments done with different reporting methodologies: interviewing, official records, direct and participant observation, and survey research (the Carolina Poll). Staff.

156 Magazine Writing and Editing (3). Prerequisites, JOMC 53 and 57. Instruction and practice in planning, writing, and editing copy for magazines. Stone.

157 Advanced Editing (3). Prerequisite, JOMC 57. Concentration on the editing and display of complex news and features stories and other print media content with a significant emphasis on newspaper design and graphics. Cloud, staff.


171 Advertising Copy and Communication (3). Prerequisites, JOMC 53, JOMC 170 or equivalent, permission of the school. Application of findings from social science research; social responsibility of the copywriter and advertiser; preparation of advertisements for the mass media; research in copy testing. Leutborn, Sweeney.

172 Advertising Media (3). Prerequisites, JOMC 53, JOMC 170 or equivalent. The media-planning function in advertising for both buyers and sellers of media; the relationships among media, messages, and audiences; computer analysis. Bowers, Zhao.

173 Advertising Campaigns (3). Prerequisites, JOMC 53, JOMC 171 or 172. Planning and executing advertising campaigns; types and methods of advertising research; the economic function of advertising in society. Leutborn.

174 Sports Marketing and Advertising (3). Examines the range of promotional techniques being used in the modern sports industry. Topics include sponsorships, advertising, merchandising, and the effects of commercialization. Sweeney.

175 Concepts of Marketing (3). Designed for students anticipating careers in advertising, public relations, or related areas, this course teaches the vocabulary and basic concepts of marketing as it will be practiced, emphasizing the role of mass communication. Leutborn.

176 Advanced Advertising Copywriting (3). Prerequisites, JOMC 53, JOMC 170 or equivalent, JOMC 171 and permission of instructor. Rigorous, in-depth instruction and critiques of student advertising writing. Sweeney.

178 Retail Advertising (3). Prerequisites, JOMC 53, JOMC 170 or equivalent. Principles and practices of retail advertising in all media, with emphasis on selling, writing, and layout of retail advertising for the print media. Bowers, Shafer.

179 Advertising Research (3). Prerequisites, JOMC 53, JOMC 170 or equivalent. Detailed study and application of advertising research methods, including focus groups, copy testing, audience research, and evaluation. Bowers, Zhao.

180 Advanced Photojournalism (3). Prerequisite, JOMC 80 and JOMC 53, or take JMC concurrently. Advanced course in black and white photojournalism concentrating on the newspaper and magazine picture story, advanced camera and darkroom techniques, and picture editing. Beckman.

181 Documentary Photjournalism (3). Prerequisite, JOMC 180. Students will study and produce work on the social documentary tradition of photojournalism. Beckman.

185 Publication Design (3). Prerequisites, JOMC 85, permission of instructor. Detailed study and application of graphic design techniques in advertising, corporate communication, magazines, newspapers and information graphics. Conceive and execute numerous finished layouts, and graphics. Anthony, Williams.

186 Promotion Design (3). Prerequisite, JOMC 85, permission of instructor. Study and application of graphic design and promotional techniques to creating advertisements and other marketing materials. Practice in conceiving and executing finished layouts. Anthony.

187 Information Graphics (3). Prerequisite, JOMC 85. Detailed study and application of graphic design and information-gathering techniques for creating charts, tables, diagrams, icons, and maps. Practice with visually presenting information with clarity and originality. Anthony.

191 Proseminar in Contemporary Mass Communication (1-3). Small classes on various aspects of journalism-mass communication with subjects and instructors varying each semester. Staff.

Summer School

JAMES L. MURPHY, Dean

The University of North Carolina at Chapel Hill established what was possibly America's first Summer School in 1877. It enrolled 235 students in courses from ten disciplines. Women were first admitted into University courses during this summer session. Students came from forty-two N.C. counties and several neighboring states. By 1925, 19,983 students had enrolled in Summer School. The University has continued annually to provide a wide offering of summer academic opportunities to the people of North Carolina and other residents from this country and abroad. From 1934 to 1987, the programs were administered by the Office of Summer Sessions. The traditional name of Summer School was reinstated in 1988.

The College of Arts and Sciences as well as many professional schools offer summer courses for undergraduates and graduates. The same faculty that make this university one of the nation's best teach the courses, assisted by visiting professors who are specially recruited by certain departments for this purpose.

The Summer School dean and staff coordinate the course offerings and the contracting of the summer faculty with the assistance of faculty liaisons and administrative assistants in academic units. The Summer School is responsible for the advertising, publications, budgeting, and administration of the summer program and the application, admission, and registration of visiting summer students.
Mission and Goals

Summer School is central to the teaching mission of the University. The summer term is one of the three terms during which the campus is open for formal instruction. Summer courses are of comparable quality and provide the same credit as corresponding courses in the fall or spring term.

When students have problems in the fall/spring terms getting courses they need or have to make choices between courses, summer provides a time when the course can be taken. This relieves pressure on the academic year, creates opportunities for enhancement of students’ programs, and increases student access to courses in nonmajor fields and other schools.

Because some subjects are best learned in an intensive and concentrated way, summer provides a time when students can focus on a single field. This is particularly useful for some laboratory experiences, concentrated arts courses, and foreign languages. Some curricula require field study or research projects and summer uniquely allows time for these studies.

The summer program is one of the key ways the campus reaches out to visiting and post-degree students who can benefit from what the University has to offer. Finally, summer is a time for faculty members to develop and experiment with new courses and teaching models that can be offered during the academic year as well.

During the summer both faculty and students can concentrate on one or two courses without interruptions of other administrative, academic, and social events that exist during the year. The total number of students is fewer in the summer and the mix includes a higher proportion of nontraditional, visiting, and minority students than during the fall/spring terms. Since class sizes are smaller and classes meet daily, students experience more interaction with faculty and each other.

Academic Programs

The Summer School has two sessions of five and one-half weeks each and a special session that includes short courses, institutes, workshops, etc., with various beginning and ending dates. In recent years, about seven hundred different sections of courses have been offered each summer to about 6,500 students in the first session and 5,500 in the second. The available courses include many that satisfy the General College or Arts and Sciences general education perspective requirements. Twelve semester hours of credit typically would be earned by a full-time summer student over both summer sessions. Many students take fewer hours or attend only one session. The total credit hours earned by students in the summer term approaches 55,000.

In recent summers, enrolled students have come from all one hundred counties in North Carolina, all fifty states, plus the District of Columbia, Puerto Rico, the Virgin Islands, and more than fifty foreign countries.

Special Programs

The special sessions provide an opportunity for faculty and students to share a learning experience not otherwise possible. Offerings include about thirty-five courses with various beginning and ending dates. Some field courses and School of Law courses are extended beyond the usual first session length. Courses taught especially for public school teachers begin after mid-June when the public schools end their term. Other institutes and workshops offered for credit operate on a concentrated schedule including foreign language instruction. Some courses are offered in the special sessions and not during fall or spring term.

The Summer School Abroad program is an opportunity for study abroad in regular UNC-Chapel Hill courses taught by regular UNC-Chapel Hill faculty who accompany the students. The courses have considerably higher fees to cover various components of the foreign experience. Typical total costs for three-to-four week programs offering six credit hours is $2,500-$4,000. Contact the Summer School for information on the expected Summer School Abroad program. Registration begins in October and runs through spring break. Spaces are limited.

Class sizes vary from ten to sixty, and locations from England to Greece. Faculty who offer such courses like to teach, enjoy association with students, and have motivation to travel (usually a research-oriented need to be on location), for study, and for making professional contacts.

Student Services

The Summer School coordinates and distributes information on the summer course offerings for credit in all Academic Affairs units. Tentative schedules are available in the Summer School in mid-December. A complete Summer School Catalog is published in March. Regular UNC-Chapel Hill students who need information on summer courses and preregistration should usually contact their advisers, dean, or the relevant academic department. These students, however, and all others, are welcome to make inquiries at the Summer School, (e-mail: summer_school@unc.edu or go to www.unc.edu/depts/summer), which acts as the information center for regular credit courses to be offered in the Division of Academic Affairs during the summer term.

A potential visiting student can obtain information, catalog, and application from the Summer School, CB# 3340, 134 E. Franklin Street; telephone (919) 966-4364. The Summer School admits, advises, and registers visiting students. The dean of the Summer School acts as the dean for these students to approve any schedule adjustments and to represent their interests in other academic and administrative matters.

Summer School students have available for their use most of the campus facilities enjoyed by students in the fall and spring semesters, such as the libraries, computer labs, and athletic facilities. Information on university housing and on dining plans is available in March. The Carolina Union, Carolina Intramural coed recreational sports, and The Daily Tar Heel provide various events and information during the summer.
Division of Health Affairs

School of Dentistry

JOHN W. STAMM, Dean

Professors
Diagnostic Sciences and General Dentistry: Roland Arnold, Ernest J. Burkes, Valerie Murrah, Chair,
Dental Ecology: James Beck, Ronald Hunt, Joyce Jenzano, Ronald Strauss, Chair, Donald Warren.
Oral Surgery: Jacob Hanker, Timothy Turvey, Chair, Raymond White Jr.
Endodontics: Martin Trope, Chair.
Operative Dentistry: James Bader, Stephen Bayne, Harald Heymann, Chair, Theodore Roberson, Dan Shugas.
Pediatric Dentistry: James Sawden, Miles Crenshaw, Frank McIver, William Vann Jr., John T. Wright
Periodontics: Ikramuddin Aukhil, Luther Hutchens Jr., Steven Offenbacher, David Simpson, Ray Williams, Chair, Mitsuo Yamauchi.
Prosthodontics: Burrell Kanoy, Jr.

Associate Professors
Diagnostic Sciences and General Dentistry: Carolyn Bentley, Charles Brantley, William Brunson Jr., James Eagle Jr.,
Dental Ecology: Sally Mauriello, Lauren Patton, Eugene Sandler, Rebecca Wilder.
Oral Surgery: Dennis Hillenbrand, John Zuniga.
Endodontics: William Maixner, Roy Peach.
Orthodontics: L’Tanya Bailey.
Pediatric Dentistry: Diane Dilley, Michael Roberts, Chair.
Prosthodontics: Gregory Essick, David Felton, Chair,
Albert Guckes, Douglas McArthur, Glenn Minsley,
Edgar L. Webb, Thomas Ziemiecki.
Periodontics: Patrick Flood, John Moriarty.

Herenia Lawrence, Erin Lutz, Ginger Mann,
Shannon Mitchell, Vickie Overman, Deborah Robinson,
Allen Samuelson, Diane Shugars, Gary Slade,
Lynn Smith, David Zajac.
Oral Surgery: George Blakey, Debra Sacco.
Endodontics: Linda Levin, Julian Moisewitch, Mary Pettijett, Asgeir Sigurdsson.
Operative Dentistry: Jeffrey Thompson.
Prosthodontics: Nancy Chaffee, Lyndon Cooper,
Matthew Hopfensperger, Lisa Lang, Anthony Molina,
Galen Schneider, Mark Scurria.
Periodontics: Cynthia Bristow, David Paquette,
Wojciech Grzesisk.

Director
Sharon Grayden.

D.D.S. and Advanced Education Programs

The School of Dentistry offers a four-year program leading to a Doctor of Dental Surgery degree. In addition, twelve advanced education programs leading to a certificate, master’s degree, or Ph.D. are offered. Additional information can be obtained from the School of Dentistry Record, the Graduate School Record, or the Admissions Office, School of Dentistry, The University of North Carolina at Chapel Hill, CB# 7450, Chapel Hill, N.C. 27599-7450.

Allied Dental Education Programs

The School of Dentistry offers basic courses of study leading to a baccalaureate degree or certificate in Dental Hygiene. A degree completion program is offered for dental hygienists holding an associate degree or certificate. In addition, a Dental Hygiene Education program is offered through a master’s degree course of study that prepares dental hygienists for teaching careers in dental hygiene programs. Basic requirements for the baccalaureate dental hygiene program follow. A one-year level certificate program in dental assisting also is offered. Additional information can be obtained from the School of Dentistry catalog and from the director of Allied Dental Education Programs.

The Curriculum for Dental Hygiene

Joyce W. Jenzano, B.S., M.S., J.D., Director of Allied Dental Education Programs

Bachelor of Science in Dental Hygiene

The School of Dentistry offers a program of study leading to the Bachelor of Science degree in Dental Hygiene. Courses
of study provide comprehensive educational experiences to qualify individuals for the practice of dental hygiene in accordance with the demands for health services, and in accordance with the laws and ethics pertaining to practice. This curriculum is administered with the flexibility necessary to accommodate the varying special interests and career goals of individual students. Upon satisfactory completion of the required program of study, the student is eligible for licensure examination at state and national levels. Graduates are eligible for admission to graduate programs in Dental Hygiene Education, Public Health, and other allied areas.

Students may be admitted for dental hygiene study after two years of college work, provided they meet requirements of the University and the Curriculum for Dental Hygiene. Personal interviews may be requested. To assure proper planning for admission, students should maintain close contact with the program director.

Dental hygiene certificate and associate degree graduates from other accredited institutions may qualify for admission as postcertificate degree candidates, provided they meet the entrance requirements of the University and the Curriculum for Dental Hygiene. Acceptable scores on the National Board Dental Hygiene Examination must be presented to receive credit for professional courses. Personal interviews may be requested.

Enrollment is limited and students are accepted on a competitive basis. Freshman admission to the University does not guarantee admission into the dental hygiene curriculum. Selections are based on academic achievement, character, and sincere interest in dental hygiene as a professional career. Residents of North Carolina receive preferential consideration for admission.

Prior to being admitted and enrolled, all students will be required to present evidence of satisfactory completion of the predental hygiene courses prescribed herein. The schedule of academic work includes:

**Preadmission Requirements:** English 11, 12; Mathematics 10 plus one additional math course (preferably Statistics 11); Chemistry 11-11L, 21-21L or Biochemistry 7, 8; Microbiology 51 or 55; Psychology 10; Sociology 10 or 11; Communication Studies 22 or 13; Physical Education (two courses); foreign language and perspective course requirements.

**Dental Hygiene Requirements:** Cell Biology 41; Biochemistry and Nutrition 40; General Physiology; Dental Anatomy-Physiology; Dental Radiology; Preclinical and Clinical Dental Hygiene (four courses); Histology; Periodontology; General and Oral Pathology; Dental Pharmacology; Dental Materials and Techniques; Dental Health Education; Community Dental Health; Oral Microbiology; Special Care in Dentistry; Dental Ethics; a dental hygiene elective; and a Dental Hygiene Practicum in one of the following fields of concentration: Dental Public Health, Geriatric Dentistry; Hospital Dentistry; Oral Biology, Pediatric Dentistry; or Periodontics.

**Certificate in Dental Hygiene**

Students may be admitted to the program without junior standing after completion of English 11 and 12, Chemistry 11, 11L and Chemistry 21, 21L (or Biochemistry 7 and 8), Microbiology 51 or 55, Psychology 10, Sociology 10 or 11, and Communication Studies 22 or 13. After completion of the basic professional program, a Certificate in Dental Hygiene is awarded. Continued enrollment to complete the BS degree requirements is the option of the student.

**For All Transfer Applicants**

Preadental hygiene course work taken at other institutions should be approved in advance by the Office of Undergraduate Admissions. Other questions concerning the program should be directed to: Director of Allied Dental Education Programs, School of Dentistry, The University of North Carolina at Chapel Hill, CB# 7450, 367 Old Dental Bldg., Chapel Hill, NC 27599.

**School of Medicine**

JEFFREY L. HOUPT, M.D., Dean

*Department of Medical Allied Health Professions*

David E. Yoder, Chairman
Robert L. Thorpe, Associate Chairman

*Professors*


*Associate Professors*


*Assistant Professors*


*Instructor*

Vicki S. Mercer.

*Clinical Professor*

Joseph Hall.

*Clinical Associate Professors*

Clinical Instructors
Martha R. Galanos, Jennifer L. Gibson, Harriet J. Ludington.

Research Professor
Robert Peters.

Research Associate Professor
Joanne E. Roberts.

Research Assistant Professors
John Grose, David A. Koppenhaaver.

Adjunct Associate Professor
Bruce Weber.

Adjunct Assistant Professors
Mark Haythorn, Julia Royster.

Adjunct Instructors
Ginger Clifford, James Lettinga, Connie McDonald-Bell, Debra Reinhartsen.

Adjunct Clinical Instructors
Julia R. Caravan, Kathleen Davis, Jennifer Horner.

A part of the School of Medicine since 1973, the department offers graduate, undergraduate, and certificate-level preparation in seven health professions. Baccalaureate degrees are offered in clinical laboratory science and radiologic science. In addition, certificate programs are offered in cytotechnology, nuclear medicine, and radiation therapy.

The Division of Speech and Hearing Sciences, a graduate program, offers courses for students anticipating graduate education in speech-language pathology or audiology. The department offers a course entitled Introduction to the Health Professions (MAHP 40), a one-hour general elective, pass/fail survey course providing an overview of the health related professions for which UNC-Chapel Hill offers training. The course informs students of the educational preparation, roles and functions, and career development in more than twenty professional areas ranging from biostatistics to speech and hearing sciences.

Basic information on the bachelor of science degree programs following and additional information can be obtained from the School of Medicine and from the program directors.

Division of Clinical Laboratory Science
(Formerly Division of Medical Technology)
SUSAN J. BECK, Director

Professor
Vicky A. LeGrys.

Associate Professors
Susan J. Beck, Anthony E. Hilger.

Assistant Professor
Rebecca J. Laudicina.

Clinical Assistant Professor
Barbara Thornton.

Clinical Associate Professor
Sally K. Zwadyk.

Clinical laboratory scientists, also called medical technologists, are the members of the health care team responsible for providing medical laboratory information and services. Clinical laboratory scientists perform a variety of laboratory tests, assure the quality of the test results, and correlate the data obtained. They play an essential role in the diagnosis and treatment of disease.

Clinical laboratory scientists perform tests in each of the following clinical laboratory areas: chemistry, hematology, microbiology, immunology/serology, and blood bank.

Clinical laboratory scientists are employed in hospital laboratories, in commercial laboratories, physicians' office laboratories, research institutes, and forensic laboratories. Clinical laboratory scientists may be employed as technical or sales representatives for corporations.

The first two years of courses are taken in the General College (or equivalent elsewhere). In the third and fourth years, students take courses in immunology, hematology, microbiology, clinical chemistry, and immunohematology in the School of Medicine. Senior clinical laboratory rotations are completed in the laboratories at UNC Hospitals and in other laboratories across the state. Upon successful completion of the curriculum, students are awarded a Bachelor of Science degree and are eligible to take national examinations to become certified clinical laboratory scientists or medical technologists. The Division of Clinical Laboratory Science and UNC Hospitals also award a certificate.

Students are selected on the basis of science and math prerequisite courses, grades, written application, interviews, and letters of recommendation. Because enrollment is limited, students are encouraged to begin the application process early in the fall preceding the year of enrollment.

The following specific courses are required for admission into the clinical laboratory science program: Biology: 11-11L and one additional Biology course with laboratory: 45-45L is recommended; Chemistry: 11-11L, 21-21L, 41-41L, 61; Math: one math course from the following: Math 30, 31, or Stat 11; and all general education requirements including foreign language, physical education, English, and General College perspectives.

For additional information, contact the Division of Clinical Laboratory Science, Medical School Wing E, CB# 7145, The University of North Carolina at Chapel Hill, Chapel Hill, N.C. 27599 (919) 966-3011. Web site: <www.alliedhealth.unc.edu/cis/cishome.htm>
Course Descriptions

51 Biochemistry (3). Physiological biochemistry of the basic metabolic pathways and alterations in selected diseases. Fall. LeGrys.

52 Hematology I (2). Introduction to normal hematopoiesis, blood cell function and identification, principles of hematologic tests, and bleeding disorders. Fall. Laudicina.

52L Hematology I Laboratory (1). Basic clinical assays for identification and evaluation of erythrocytes, leukocytes, and platelets with an emphasis on microscopy. Also includes coagulation testing. Fall. Zwadyk and Laudicina.

53 Immunology (3). Basic immunology and serology. Innate and immune body defenses. The development and properties of cellular and humoral elements and their alterations in pathological and other conditions. Fall. Otto.

53L Immunology Laboratory (1). Laboratory evaluation of body defenses and correlation with disease states. Clinical serological analyses include examples of basic techniques and correlation with immunity. Thornton.


54L Microbiology I Laboratory (1). Clinical laboratory diagnostic methods for human parasitic and fungal infections. Microscopic morphology of fungal organisms and parasites, including their various life cycle forms. Fall. Zwadyk and Hilger.

55 Clinical Laboratory Analysis (1). The physical, chemical, and microscopic analysis of body fluids in the clinical laboratory with an emphasis on correlation of laboratory data. Fall. Beck.

55L Clinical Laboratory Analysis Laboratory (1). Introduction to the basic skills associated with the clinical laboratory. Includes instrumentation, urinalysis, and body fluid analysis. Fall. Thornton, Beck, LeGrys.

60 Clinical Chemistry (3). An introduction to the methods of analysis used in the clinical chemistry laboratory. Emphasis on the correlation of chemistry laboratory values with disease states. Spring. LeGrys.

60L Clinical Chemistry Laboratory (2). Performance of clinical laboratory assays for significant biochemical molecules. Principles of analysis, quality control, and basic laboratory instrumentation are presented. Spring. Otto and LeGrys.


61L Microbiology II (2). Laboratory sessions provide practical experience in clinical identification of bacteria. Spring. Zwadyk and Hilger.

62 Immunohematology (3). Introduction to blood group serology with an emphasis on the major systems, pretransfusion testing, and antibody identification. Spring. Beck.

62L Immunohematology Laboratory (2). Laboratory techniques for red cell typing, antibody identification, and pretransfusion testing. Spring. Thornton and Beck.

63 Clinical Laboratory Education (2). Introduction to the basic principles of clinical laboratory education, to include writing objectives, selecting learning format, developing test items, and clinical teaching. Spring. Beck and LeGrys.

64 Laboratory Mathematics (1). Basic mathematical principles and concepts relevant to the clinical laboratory. Fall. LeGrys.

65 Hematology II (2). Hematologic disorders involving erythrocytes and leukocytes, with an emphasis on the analysis and interpretation of laboratory data through the use of case studies. Spring. Laudicina.

65L Hematology II Laboratory (1). Microscopic identification and evaluation of abnormal erythrocyte and leukocyte morphology, correlation with other laboratory data, and clinical interpretation. Spring. Zwadyk and Laudicina.

71 Clinical Chemistry Practicum (4). Clinical laboratory rotation in clinical chemistry. Fall and spring. LeGrys.

72 Special Chemistry Practicum (2). Clinical rotation in the areas of immunochemistry and blood gases. Fall and spring. LeGrys.

73 Advanced Laboratory Techniques (2). Clinical laboratory rotation in histocompatibility and DNA techniques including the diagnosis of genetic disorders, tissue typing for transplantation, and paternity testing. Fall and spring. Beck and LeGrys.

74 Special Microbiology Practicum (2) Clinical laboratory rotation in virology, mycology, parasitology, and mycobacteriology. Fall and spring. Hilger.

75 Management and Quality Assurance Practicum (1). Practicum in laboratory management including quality assurance, financial operations, instrument evaluation, and supervision. Fall and spring. Laudicina and LeGrys.

82 Clinical Hematology Practicum (4). Clinical laboratory rotation in clinical hematology. Fall and spring. Laudicina.

84 Clinical Microbiology Practicum (4). Clinical laboratory rotation in clinical microorganisms. Fall and spring. Hilger.

86 Clinical Immunology Practicum (1). Clinical laboratory rotation in clinical immunology. Fall and spring. Otto.

88 Clinical Hemostasis Practicum (2). Clinical laboratory rotation in clinical coagulation. Fall and spring. Laudicina.


94 Community Laboratory Experience (2). Clinical experience in a community laboratory facility designed to further develop and apply skills learned in the basic clinical rotations. Spring. Thornton.

Division of Radiologic Science

JOY RENNER, Director

Associate Professors
Charles B. Burns, Janice C. Keene, Jordan Renner, Robert L. Thorpe.

Assistant Professor
Donna L. Wright.

Clinical Assistant Professor
Joy J. Renner.

Clinical Instructor
Sue Norcia.

Bachelor of Science in Radiologic Science

The School of Medicine offers an undergraduate curriculum in Radiologic Science leading to the Bachelor of Science in Radiologic Science. The program is designed to prepare individuals for professional practice and associated responsibilities in the health specialty of radiologic technology.

Following completion of the first two years' work in the General College, students may be admitted to the professional major offered by the Division of Radiologic Science, Department of Medical Allied Health Professions of the
School of Medicine. Students enrolled at other colleges and universities who are interested in transferring to the Chapel Hill campus following their sophomore year should contact the Office of Undergraduate Admissions and the Division of Radiologic Science early in their college career to assure proper planning and transferability of courses. Students are encouraged to begin the application process early in the fall preceding the year of intended enrollment. Transfer applications should be received in the Office of Undergraduate Admissions by January 15.

Since enrollment in the major is limited, completion of the prescribed General College curriculum does not assure the student a position in the professional class. Students should contact the Division Office the fall semester preceding anticipated enrollment to receive admissions information.

Student selections are made on a competitive basis with consideration given to academic achievement, character, and demonstrated interest in radiologic technology as a professional career. The schedule of academic work includes:

**General College Requirements**

English Composition, two courses; two mathematical sciences, Math 10 and one other course selected from Math 30, 31, 32, or Statistics 11 or 23; Foreign Language and all Perspective requirements. Six courses in the natural sciences are also required and must include: Chemistry 11, 11L or Biochemistry 7, 7L; Biology 11, 11L and Biology 45, 45L; Physics 24, 24L and Physics 25 and 25L; Psychology 10.

The curriculum in Radiologic Science includes courses in Anatomy, Physiology, Radiography, Imaging Methods, Research, and Clinical Practice. During the second year of the curriculum, the student elects areas of clinical concentration such as Magnetic Resonance Imaging, Pediatrics, Cardiac Catheterization, Health Physics, Orthopedics, and Vascular Imaging.

**Course Descriptions**

**RADI 42 Introduction to Radiologic Science (3).** Open to Radiologic Science students only. Lectures, discussions, demonstrations, and laboratory exercises are combined to introduce topics including: patient assessment, image characteristics, radiation protection, positioning skills, medical terminology, and the role of imaging sciences in health care. Summer Session II. Wright.

**RADI 61 Radiography I (4).** Prerequisite, RADI 42 and OCCT 209L. The course prepares students for standard radiography of upper extremities, lower extremities, axial skeleton, bony thorax, chest, abdomen, and the basic skull considering pathologies and gross, radiographic, and cross-sectional anatomy. Three lecture hours and two lab hours. Fall. Wright.

**RADI 62 Radiographic Imaging I (4).** Prerequisite, RADI 42 and OCCT 209L. An overview of radiographic imaging methods examining the imaging process as a sequence of events from x-ray production through hard copy processing. The imaging equipment is discussed in terms of function, influence on the image, the impact of alteration on image characteristics, and compensation techniques for changes in the sequence. Three lecture hours and two lab hours. Fall. Burns.

**RADI 63 Clinical Education I (4).** Prerequisite, RADI 42 and OCCT 209L. A clinical course focusing on the application and evaluation of general radiography in the hospital setting. With supervision, the student develops clinical skills through observation and participation in radiographic studies. Twenty practicum hours. Fall. Renner, Norcia.

**RADI 64 Integrated Principles of Radiographic Analysis (3).** Prerequisite, RADI 42, 61, 62, 63, and 90. This course involves students in situational problem solving and radiographic analysis. Integration of concepts and knowledge of anatomy, pathology, procedures, patient care, and imaging principles is emphasized. Three lecture hours. Spring. Renner, Norcia.

**RADI 71 Radiography II (4).** Prerequisite, RADI 61. The course content prepares students for standard radiography of cranial bones, facial bones, and special cranial projections. Contrast studies include gastrointestinal, urinary, biliary, cardiovascular, and other special procedures. The course includes pathologies, and gross, radiographic, and cross-sectional anatomy. Three lecture hours and two lab hours. Spring. Wright.

**RADI 72 Radiographic Imaging II (4).** Prerequisite, RADI 62. A detailed study of specific elements of the radiographic process, with an emphasis on the interrelationships of the radiographic parameters, refinement of image analysis and problem-solving skills, and quality control testing for evaluating the performance of the radiographic equipment and accessories. Three lecture hours and two lab hours. Spring. Burns.

**RADI 73 Clinical Education II (4).** Prerequisite, RADI 63. A continuation of RADI 63 with emphasis on the application and evaluation of more complex radiographic studies. Twenty practicum hours. Spring. Renner, Norcia.

**RADI 74A and 74B Clinical Internship (8).** Prerequisite, RADI 73, and approval of instructor. Under general supervision, the student will function at an increased level of responsibility in general diagnostic radiography in a variety of clinical settings outside of the university setting. Forty practicum hours. Summer Session I and II following first professional year. Renner, Norcia.

**RADI 81 Trends in Radiography Practices (3).** Prerequisite, completion of first professional year courses. A special topics course on contemporary issues affecting radiography services. Group projects stressing the radiologic technologist's role in the planning, design, staffing, and operation of a radiology service are required. Two lecture and four seminar hours per week. Spring. Keene.

**RADI 83 Clinical Education III (4).** Prerequisite, RADI 74. A clinical course utilizing contract learning to provide students an opportunity to gain additional competency in specialized areas of radiology services. Thirty-two practicum and independent study hours. Fall. Renner, Norcia.

**RADI 85 Radiologic Health Physics (3).** Prerequisite, RADI 72 or permission of instructor. A course in the physics of diagnostic radiology including radiation effects on tissue, radiation detection and measurement, protection methods and techniques, and environmental radiation issues. Three lecture hours. Spring. Burns.

**RADI 86 Issues and Research in Radiologic Science (3).** Prerequisite, completion of first professional year courses. The major part of the course is devoted to an investigative project on a discipline-related topic of student interest. Select issues affecting professional affairs of radiologic technologists are also included. Three lecture hours. Fall. Keene.

**RADI 90 Pathophysiology (3).** Prerequisite, RADI 42 and OCCT 209L. Using a system approach, this course will present physiological concepts related to the human body. Emphasis will be placed on the effect of pathological conditions on the function of the various body systems. Discussions will include radiographic imaging that demonstrates anatomical changes related to the patient’s physical and pathological state. Three lecture hours. Fall. Renner.

**RADI 91 Practicum in Radiologic Science (4).** Prerequisite, RADI 93. This course offers an elective clinical experience in an area of student interest with a review of general diagnostic radiography procedures. Forty practicum hours. Summer Session I. Renner, Norcia.
RADIO 93 Clinical Education IV (6). Prerequisite, RADIO 83. This course is a continuation of RADIO 83 using learning contracts to allow students to explore and gain additional expertise in various areas of radiology services. Twenty practicum hours. Spring, Renner, Gibson.

RADIO 96 Professional Communication (3). Prerequisite, completion of first professional year courses. This course provides for a brief cognitive and skills approach to communication skills, the teaching/learning process, and methods and materials of instruction and delivery. Three lecture/discussion hours per week. Fall, Thorpe.

RADIO 97 Management Practices for the Health Professional (3). Prerequisite, completion of first professional year courses. An introduction to principles and practices of health service organization management with an emphasis on radiology. Three lecture hours. Spring, Keene.

For additional information on the Bachelor of Science in Radiologic Science contact the Director, Division of Radiologic Science, CB# 7130, Wing E, Medical School, The University of North Carolina at Chapel Hill, Chapel Hill, N.C. 27599-7130. (919) 966-5146.

Division of Speech and Hearing Sciences
JACKSON ROUSH, Director

Professor
David E. Yoder.

Associate Professors
Elizabeth R. Crais, Melody F. Harrison, James W. Montgomery, Jackson Roush.

Assistant Professors
Katarina Haley, Robert Mayo, Janet Sturm.

Research Professors
Robert W. Peters, Joanne E. Roberts.

Research Assistant Professor
John H. Grose.

Clinical Professor
Joseph W. Hall.

Clinical Associate Professors
Celia R. Hooper, Bobbie B. Lubker, Stanley J. Martinosky, Linda R. Watson.

Clinical Assistant Professors
Carolyn M. Mayo, Sharon S. Ringwalt, Brenda Robinson, Margaret L. Sauer.

Clinical Instructor
Martha R. Mundy.

Adjunct Associate Professors
Robert G. Paul, Bruce A. Weber.

Adjunct Assistant Professors
Mark M. Haythorn, Julia Royster.

Adjunct Instructors
Virginia V. Clifford, Connie McDonald-Bell, Debra R. Reinhartsen.

Graduate study in speech and hearing sciences is concerned with the body of knowledge and scientific study that pertains to both normal and abnormal speech, hearing, and language, and with professional, academic, and research activities in these areas. The Division of Speech and Hearing Sciences is a graduate program; however, there are preprofessional courses recommended for undergraduate students who anticipate pursuing a master's degree in speech-language pathology or audiology. This includes courses in anatomy and physiology of speech and hearing, language acquisition, phonetics, speech science, linguistics, and statistics. Some of these courses may be taken at the undergraduate level through the Department of Communication Studies.

Course Descriptions

130 Introduction to Phonetics (Communication Studies 127) (3). A detailed study of the International Phonetic Alphabet with emphasis on the sound system of American English. Application of phonetics to problems of pronunciation and articulation.


Department of Microbiology and Immunology
JEFFREY FRELINGER, PH.D., Chair

The Department of Microbiology and Immunology, a part of the School of Medicine, participates actively in the undergraduate Curriculum in Biology, and several of our courses are open to students in the College of Arts and Sciences. Microbiology 51 and 55 are open to some students with a minimum of science prerequisites but are specifically designed as prerequisites for the pharmacy or nursing curriculum. Microbiology 108 is suggested for students considering a career in microbiology or immunology, but the entire sequence to 130 is available to the highly motivated student.
Course Descriptions

51 Elementary Bacteriology (4). Prerequisite for pharmacy students. Prerequisites, Chemistry 11-21. Covers the general principles and techniques of bacteriology and the relations of these organisms to sanitation, agriculture, medicine, and industry. Three lecture and two laboratory hours a week. Fall. Twarog.

55 Elementary Pathogenic Microbiology (4). Prerequisite for nursing students and dental hygiene students, other students by permission of department. Prerequisites, Chemistry 11-21. A course covering the fundamental principles of microbiology, the relation of microorganisms to disease, modes of infection, and etiologic agents of the important infectious diseases. Three lecture and two laboratory hours a week. Spring. Dalton.

108 Advanced Molecular Biology I (Genetics 110, BIOC 110, PHCO 136, BIOL 178) (3). DNA structure, function, and interactions in prokaryotic and eukaryotic systems, including chromosome structure, replication, recombination, repair, and genome fluidity. Three lecture hours. Fall. Griffith, staff.

109 Advanced Molecular Biology II (Biochemistry 111, Genetics 111, Pharmacology 137, Biology 179) (3). Prerequisites, at least one undergraduate course in both biochemistry and genetics, and permission of instructor. RNA structure, function, and processing in biological systems including transcription, gene regulation, translation, proteins and RNA transport. Spring. Fried.

112 Introduction to Microbiology (3). Open only to dental students. A course covering basic aspects of microbiology and immunology including sterilization, action of antimicrobial chemotherapeutic agents, concepts of infection and immunity, and the study of certain selected infectious agents. Twenty-eight lecture hours and seven laboratory hours. Spring. Gooder, staff.

114 Immunobiology (3). For students with primary focus other than immunology. Immunobiology: genetic control, regulation and development of cells and cell interactions: hypersensitivity, autoimmunity, resistance to infection. Two lectures, one seminar. Fall. Kipper, staff.

115 Special Topics in Bacteriology or Immunology (3 or more each semester). Permission of the department required except for department majors. Designed to introduce the student to research methods. Minor investigative problems are conducted with advice and guidance of the staff. Hours and credit to be arranged, any term. May be repeated for credit two or more semesters. Staff.


120 Microbial Pathogenesis (4). Prerequisite, Microbiology 105, 110. Molecular and biological basis of pathogenic properties of bacteria. Four lecture hours per week. Spring. Wyrick, staff.

130 Virology (4). Current concepts of the chemistry, structure, replication, genetics, and natural history of animal viruses and their host cells. Four lecture hours a week. Fall. Bachenheimer.

156 Growth Control in Normal and Neoplastic Cells (3). Topics will include growth factors and their receptors, signal transduction, oncogenes, and anti-oncogenes. Three lecture hours. Spring. Lee.

189 Molecular Biology Techniques (Biol 189, Gnet 189, Phco 189, Phys 189) (4). Prerequisites, some molecular biology, permission of the instructor. These one and two week intensive courses are part of the Carolina Workshops series. Topics emphasized vary, but usually include techniques such as isolation of nucleic acids, blotting, cloning in viruses and plasmids, and DNA sequencing. Fall, spring, and summer courses available. Litaker and staff. Fee required. Eight laboratory hours.

School of Nursing

CYNTHIA M. FREUND, Dean

Maude H. Speakman, Assistant Dean and Director of Minority Affairs

Carol C. Hogue, Associate Dean for Graduate Studies

Beverly Foster, Associate Dean for Undergraduate Studies

Carol D. Binzer, Director of Student Services

Ernestine B. Small, Director of Center for Multiculturalism in Nursing

Professors


Associate Professors

Barbara J. Bunker, Margaret E. Campbell, Virginia T. Davis, Mary C. Dowe, Barbara Germino, Edward J. Halloran, Carol C. Hogue, Margaret F. Hudson, Mary R. Lynn, Shirley C. Mason, Helen M. Murphy, Virginia J. Neelon, Susan F. Pierce, Barbara Rynerson, Ingrid Swenson.

Assistant Professors


Clinical Professor

Deitra L. Lowdermilk.

Clinical Associate Professors

Bonnie F. Angel, Sheila Englebardt, Beverly Ferreiro, Beverly Foster, Deborah Thompson.

Research Associate Professors

Carol Baker, Michael J. Belyea.

Clinical Assistant Professors

Kathryn R. Alden, Linda B. Brown, Marge Bye, Carolyn Cooper, Mary Foster Dillard, Carol Durham, Martha Henderson, Jane Kaufman, Margaret Miller, Sheila Northen, Ann O'Hale, Mary Ann Peter, Randolph R. Rasch, Elizabeth Woodard.
Research Assistant Professors
Beth Black, Alice Boyington, Chyrise A. Bradley, John Carlson, Ginette Nachman.

Clinical Instructors

Research Instructors
Ginny Dudek, Joann Haggerty, Erma Smith, Amy Strzalka, Andrea Ware.

Lecturers

The School of Nursing, housed in Carrington Hall, is one of five schools in the Division of Health Affairs. As such, it benefits from the contributions of the entire University's personnel and facilities. Teaching, research, and library facilities are used cooperatively to provide students with broad general education as well as preparation in professional nursing. Both undergraduate and graduate students in nursing take courses taught in other departments and schools in the University.

Established in 1950, the School of Nursing is committed to the improvement of health through education, research, and community service. Its undergraduate and graduate curricula and continuing education courses seek to reflect the changing health problems of society and to provide students with the tools to deal with those problems effectively. Students are admitted who have the level of preparation, intellectual competence, and personal qualities judged necessary for the study of nursing in a university.

The school welcomes students of all races and both genders, as well as older individuals seeking a new career and registered nurses wishing to complete the bachelor's or master's degree. The school also admits students with a bachelor's degree in a field other than nursing.

The faculty are actively engaged in advancing the profession through research, with the conviction that this scholarly activity enhances teaching and patient care. School facilities include a modern skills laboratory, computer laboratories, a research support center, and a design center. Nursing students participate actively in campus activities and organizations, which promote participation in the School of Nursing and the nursing profession.

The school provides clinical experiences in a variety of facilities, both urban and rural, in Chapel Hill and surrounding areas.

Curriculum
The School of Nursing offers an undergraduate program of study designed to provide students with the knowledge, skill, and understanding necessary to function effectively in all areas of nursing. The curriculum, leading to the Bachelor of Science in Nursing degree, includes two years of lower-division courses in the General College and two years in the School of Nursing.

The general education requirements for the first two years of the Bachelor of Science in Nursing curriculum include twenty courses offered to students in the General College. These courses, or lower-division requirements, may be taken at any college or university but must be approved by the Office of Undergraduate Admissions of The University of North Carolina at Chapel Hill as being comparable to the courses offered on this campus. Below is a list and a brief description of the prerequisite requirements:

Courses and Academic Semester Hours Credit

Basic English Skills - 6 credits (two courses) - English 11, 12 (English Composition and Rhetoric)

*Basic Mathematical Sciences - 3 credits - Statistics 11; Math 10 (if required by placement)

Natural Sciences Perspective - 28 credits (seven courses)
* Psychology 10 (General Psychology)
* Chemistry 11, 11L or Biochemistry 7, 7L
* Chemistry 21, 21L or Biochemistry 8, 8L (General Descriptive Chemistry or Introduction to Biochemistry)
* Biology 11, 11L (Principles of Biology) (This course not required of RNs)
* Biology 45 (Fundamentals of Human Anatomy and Physiology)
* Physiology 92 (Introduction to Physiology)
* Microbiology 55 (Elementary Pathogenic Microbiology) or Microbiology 51 (Elementary Bacteriology)

*Social Sciences/Cultural Diversity Perspective - 6 credits (two courses) - one course in sociology or anthropology fulfills both perspectives; Nursing 52 (once admitted)

Western Historical and Non-Western/Comparative Perspective -
6 credits (two courses); one course in pre-1700 Western history; one course in either Western history or non-Western history

Aesthetic Perspective - 6 credits (two courses);
one course in literature; one course in the fine arts

Philosophical Perspective - 3 credits (one course)

Foreign Language Skills - 11 credits (three courses)
a foreign language through the intermediate level

Physical Education - 2 credits (two activity courses)
Total - 74

* Students with a bachelor's degree from a four-year college/university only have to complete these courses or verify completion of these courses as a part of the previous degree. Please refer to the section below Second Degree Applicants.

Courses in the nursing major are taken during the last two years of the traditional bachelor's curriculum. The courses build on a strong foundation in the sciences and humanities to develop the knowledge and skills needed to
practice nursing in contemporary society. Clinical experiences take place in a broad variety of settings that reflect current patterns of health care delivery and provide opportunities for students to develop competence in technical skills, critical thinking, clinical judgment and decision making, interdisciplinary collaboration, and management of care.

**Nursing Courses (in numerical order)**

**NURS 51 Introduction to the Discipline of Nursing** (3). The course will introduce the student to concepts basic to the discipline and practice of nursing, including nursing, practice, critical thinking, care and the context of nursing.

**NURS 52 Individual and Family Development across the Lifespan** (3). Using a lifespan approach, the course focuses on individual psychosocial and cognitive development, developmental milestones, physical growth, and risk prevalence from infancy through elder years and on family development. Social sciences perspective.

**NURS 56 Basic Theories, Processes, and Skills for Clinical Nursing** (6). The focus of the course is on development and application of basic nursing concepts and skills in classroom, laboratory and clinical settings.

**NURS 57 Pathophysiology** (3). The course is concerned with the disruption of normal physiology; the alterations and mechanisms involved in the disruption; the manifestations in disease and at risk conditions; and the pathophysiological principles underlying therapeutic interventions.

**NURS 58 Pharmacology** (2). Using the science of pharmacology and pharmacologic principles underlying therapeutic interventions, the course focuses on the introduction to nursing responsibilities regarding pharmacologic therapy.

**NURS 59 Nursing Care of Patients with Major Adult Health Problems I** (3). First-level course in applying critical thinking skills to nursing care problems of adults with major health problems.

**NURS 60 Nursing Role in Normal and Therapeutic Nutrition** (2). Emphasis is on analysis of the nutritional needs of clients at any point in the health-illness continuum, throughout the lifespan and across diverse cultural groups.

**NURS 66 Health Assessment** (3). Concepts and methods of comprehensive health assessment of children, adults, and elders. Emphasis will be on data collection as a base for initiation of caring and decision making in nursing practice.

**NURS 71 Nursing Care of Infants and Children** (5). The nursing care of children and their families is explored. Knowledge from a variety of disciplines is applied through the nursing process to the direct care of infants and children.

**NURS 73 Maternal/Newborn Nursing** (5). The course focuses on application of critical thinking skills to provide competent maternal and newborn care and demonstration of caring through the family-centered approach to maternal/newborn care.

**NURS 74 Community Health Nursing** (5). The course provides a theoretical and empirical foundation for the practice of community/public health nursing, using critical thinking to focus on health promotion and disease prevention.

**NURS 75 Nursing Care of Clients with Mental Health Problems** (5). The course relies upon critical thinking for applying psychiatric and nursing theories to the nursing process in the care of mentally ill clients and families in various health care settings.

**NURS 81 Care Management** (3). Co-requisite, required work experience. The course explores theoretical and contextual elements of nursing care management. Models of care management are analyzed, emphasizing the role of the nurse in care coordination, discharge planning, and referral.

**NURS 88 Introduction to Nursing Research** (3). This introductory course helps students conceptualize both the basic research process and the importance of research to nursing, and enables students to understand and use published healthcare research.

**NURS 89 Leadership in Organizations** (3). The course uses a systems approach to examine leadership behaviors and organizational structures that enhance patient care delivery. Organizational roles and their implications for professional nursing practice are emphasized.

**NURS 92 The Nursing Profession in Today's Healthcare Systems** (3). Current social, economic, legal, ethical, and policy issues affecting the practice, education, and profession of nursing are explored.

**NURS 93 Nursing Care of Patients with Major Adult Health Problems II** (4). Second-level course in applying critical thinking skills to complex health problems of adults. Emphasis will be placed on continuity of care and intervention necessary for promoting optimal patient outcomes.

**NURS 97/98 Honors in Nursing** (6). Preparation of a two-semester honors project under the direction of department advisers. Permission required. Seniors only.

**Admissions**

To request an application or additional information or for up-to-date information on the School of Nursing, please visit our home page at <http://www.unc.edu/depts/nursing/> or call the Office of Student Services at (919) 966-4260.

**Freshmen**

The high school graduate enters the UNC-Chapel Hill General College as a freshman and applies for admission into the School of Nursing in the sophomore year. Admission of freshmen is handled by the Office of Undergraduate Admissions. Refer to the section of this catalog on General College admissions.

Freshman admission as a pre-nursing student does not guarantee admission into the nursing curriculum at the junior level. Students apply to the School of Nursing during the sophomore year.

**Transfer Students**

The applicant who wishes to transfer into the nursing program as a junior student from another college or university should have completed sixty-four semester hours of transferable credit. However, the University's policies for transfer students will apply.

The student who is planning to transfer to the University as a junior should contact the Office of Student Services, School of Nursing at (919) 966-4260 to discuss admission procedures, credits, and course plans. Admission to the School of Nursing depends on University admission, completion of required lower division courses, and approval of the Admissions Committee of the School of Nursing. Transfer applications and the School of Nursing Supplemental Applications should be completed in the Office of Undergraduate Admissions by December 1.

**Second Degree Applicants**

The applicant who has completed a bachelor's degree in a subject other than nursing is encouraged to contact the Office of Student Services at the School of Nursing at (919) 966-4260 for more information about this Second Degree
program. Students with a bachelor's degree from a four-year college or university will only have to complete (or verify completion as part of their previous degree) the courses noted with asterisks on the previous page. Second Degree students will have sixty credit hours from their previous degree counted toward the School of Nursing's Bachelor of Science in Nursing.

Registered Nurse Applicants (RN/BSN Completion)

The School of Nursing encourages applications from registered nurses seeking to complete requirements for the BSN degree. For the registered nurse student, the baccalaureate curriculum is modified to eliminate redundant experiences. RN students take a series of alternate nursing courses that build on the knowledge and skills acquired in an associate degree or diploma program. RN students may enroll full time or part time. The completion program takes one summer session and two semesters of full-time study.

The School of Nursing awards the enrolled RN student thirty-five hours of credit for nursing knowledge and skills. Knowledge and skills are validated through course work in the BSN completion program. The registered nurse applicant must successfully complete the general education requirements, and meet the University's admission requirements. Biology 11 is not required if the RN already has completed a course equivalent to Biology 45. These courses may be taken at another college or university and must be comparable to those offered at The University of North Carolina at Chapel Hill. Students should present at least a "C-" (2.0 on a 4.0 scale) average on all courses taken and be eligible to return to all previously attended institutions. Regulations regarding retention and graduation of RN students are the same as those followed by all other nursing students.

The registered nurse applicant must be licensed in North Carolina. State licensure is required for students to have laboratory practice in clinical facilities. For information on obtaining North Carolina licensure, contact the North Carolina Board of Nursing, P.O. Box 2129, Raleigh, North Carolina 27602, (919) 828-0740. Students (who are RNs) enrolled in the School of Nursing must carry professional liability (malpractice) insurance coverage.

For more information about the BSN completion program for registered nurses, or for information on application procedures, requirements, or financial aid, registered nurses should contact The Office of Student Services, at (919) 966-3841.

RN/BSN Completion Courses

Summer Session

NURS 191* Health of the Public (3). Patterns of health and illness emphasizing related conditions among vulnerable groups are examined.

(*MSN course)

NURS 69 Health Assessment (3). This course provides an introduction to patient assessment including interviewing, history taking, physical exam, and recording, analysis, and use of assessment data in planning patient care. Fall.

NURS 88 Introduction to Nursing Research (3). See above.

NURS 89 Leadership in Organizations (3). See above.

NURS 90 Conceptual Bases of Professional Nursing Practice (3). Selected concepts and theories are explored as a basis for making judgments and decisions in nursing practice. Critical thinking skills are developed as an essential component of professional practice.

NURS 91 Improving Nursing Practice: Application of Concepts, Theories, and Research (3). This course emphasizes analysis of clinical problems that affect the nursing care of selected populations. Students apply the nursing process, therapeutic communication skills, and teaching-learning principles in clinical situations. Spring.

NURS 92 The Nursing Profession in Today's Health Care Systems (3). See above.

NURS 94 Community Health Nursing (6). Provides a theoretical and empirical foundation for the practice of community health nursing. Critical thinking skills are developed and used in case management. The application of health promotion/disease prevention strategies are explored.

NURS 95 Alternative Paradigms for Nursing Practice (3). Concepts and principles underlying biomedical and biopsychosocial approaches to health care delivery are analyzed to determine their impact on health and to provide a framework for integrating both approaches to care.

Financial Aid

Students granted admission to the School of Nursing as juniors and registered nurses seeking the baccalaureate degree at UNC-Chapel Hill may be considered for a variety of nursing-specific scholarships and financial aid. Contact the Office of Scholarships and Student Aid at (919) 962-8396.

School of Pharmacy

WILLIAM H. CAMPBELL, PH.D., Dean
George H. Cocolas, Ph.D., Associate Dean
A. Wayne Pittman, M.S., Associate Dean
Kevin L. Almond, B.S., Assistant Dean

Professors

Associate Professors

Assistant Professors

Instructor
Y. Tina Shih.
Lecturers
Joe Graedon, Theodore Johnson II.

Clinical Professors

Clinical Associate Professors

Clinical Assistant Professors

Clinical Instructors
Kevin L. Almond, Randy Burden, Paul Dombrower, Charles Gibson, Christine Goodman, Christopher Rubino, James Sessions, Victoria Strandhoy, Frances Whaley.

Research Professors
Arnold Brossi, Sydney P. Craig, Richard Mailman.

Research Associate Professors

Research Assistant Professors
Esther M. Morris, Susan L. Morris-Natschke, Iosif Vaisman.

Research Instructors
Shang-Yong Chen, William Hall.

Adjunct Professors
Clarence Cook, Michael Corey, Fred Eshelman, Richard Miller, Andrew Mihail, Gerald Miwa, Bernard Spielvogel, James Swarbrick, Hugh Tilson, Raymond Townsend, David Work, Margaret Yarborough.

Adjunct Associate Professors

Adjunct Assistant Professors

Adjunct Instructors
Suzanne Dove, Michelle Fouset, Katie Lai, Peggy Norton, Christine M. Ruby.

The School of Pharmacy was established as an academic unit of the University of North Carolina at Chapel Hill in 1897 in response to urgent requests from the pharmacists of North Carolina. The school occupies a well-equipped building, Beard Hall, named in honor of the school's second dean, John Grover Beard. The School of Pharmacy is located in an academic health center on the Chapel Hill campus and, with the schools of Medicine, Dentistry, Public Health, and Nursing, is a unit of the University's Division of Health Affairs.

The school benefits from the excellent resources on and off campus required for a center of excellence for pharmaceutical education, research, and service.

Educational Programs
The professional curriculum of the School of Pharmacy leads to the Doctor of Pharmacy (Pharm.D.) degree. Accreditation standards and guidelines for the professional program as set forth by the American Council on Pharmaceutical Education identify the Pharm.D. degree as the entry-level degree into the profession of pharmacy. This course of study includes four years of professional coursework to prepare students for the general practice of pharmacy, providing skills and knowledge necessary to deliver pharmaceutical care in any pharmacy settings.

Pharmacy is evolving into a profession with opportunities for generalist and specialist practitioners. Generalists may practice in a variety of environments, influencing to some degree their responsibilities and functions as pharmacy professionals. Specialty pharmacy practitioners pursue in-depth
training beyond the Pharm.D. degree. In these two practice environments pharmacists must be able to evaluate complex approaches to drug therapy and advise patients and other health professionals on strategies to achieve optimum quality of pharmaceutical care.

Prerequisites to the Pharm.D. curriculum require breadth and depth of general education and the basic sciences, and provide a necessary foundation to the pharmaceutical sciences that prepare students for the clinical component of the Pharm.D. curriculum. A minimum of two years are required to complete all prerequisites for the Pharm.D. degree.

The professional curriculum requires six semesters of didactic coursework and includes an additional ten-month clinical component. The didactic and clinical components of the curriculum are sufficiently flexible to accommodate many different career goals of individual students. At the same time, the curriculum retains adequate rigor to qualify the students as candidates for licensure as registered pharmacists and prepare them for the important and expanded role of the pharmacist as a health professional.

The School of Pharmacy also provides an accessible means whereby practicing pharmacists with a baccalaureate degree in pharmacy (B.S. Pharmacy) can upgrade their education to earn the Pharm.D. degree through its External Doctor of Pharmacy program. The program uses the practice experience of pharmacists, allowing their education to be completed without extended absence from their practice setting.

The School of Pharmacy offers graduate education and training programs. The school offers the M.S. and Ph.D., as well as postdoctoral opportunities in the disciplines of Pharmacetics and Medicinal Chemistry. It offers an M.S. degree in the areas of Pharmacy Practice and Pharmaceutical Policy and Evaluative Sciences. An interdisciplinary Ph.D. degree is offered in Pharmaceutical Policy and Evaluative Sciences through the School of Public Health in conjunction with its Department of Health Policy Administration and Department of Epidemiology.

The school engages in the continuing education of pharmacists and pharmaceutical scientists, supporting their efforts to keep abreast of an expanding and dynamic science and technology. The faculty, staff, and students of the School of Pharmacy are actively involved in research and other scholarly pursuits in the professional, scientific, and technological aspects of pharmacy. Through their work they contribute to the knowledge of the pharmaceutical sciences, its recording and communication, and its application in the educational and service phases of the school’s program.

In the third, or service, phase of the school’s mission, the faculty and staff promote the disciplines and support the missions of the pharmacists in clinical practice and the pharmaceutical scientists in industry, government, or elsewhere. This is done particularly by motivating and providing for continuing education programs at all levels. The school also contributes to the development of expanding pharmaceutical services by engaging in the exploratory research that leads to new and improved pharmaceutical services and new drug products.

The School of Pharmacy was admitted to membership in the American Association of Colleges of Pharmacy in 1917. This organization was formed for the promotion of sound educational programs and productive research and scholarly efforts in pharmacy and the pharmaceutical sciences. It maintains high standards for membership based on the quality of the faculty of its member institutions and the excellence of their instructional programs and their resources for education and research. The School of Pharmacy of The University of North Carolina at Chapel Hill is accredited by the American Council on Pharmaceutical Education. Graduates of the school’s Pharm.D. program may sit for the State Licensure Examination for pharmacists.

Admission to the School

Students are admitted to a four-year program of professional studies in the School of Pharmacy upon completion of at least two or more years (the prepharmacy years) of collegiate work in the General College of The University of North Carolina at Chapel Hill or in any accredited institution of higher learning. Arrangements should be made during the prepharmacy years to take the Pharmacy College Admissions Test (PCAT), which is required for admission into the School of Pharmacy. The American Association of Colleges of Pharmacy stipulates for its member schools that students transferring from a college other than another school of pharmacy must complete the required professional courses in proper sequence in the School of Pharmacy for the Doctor of Pharmacy Degree.

Each application for admission must be approved by the director of Undergraduate Admissions of the University before it is forwarded to the Admissions Committee of the School of Pharmacy for review. Applications should be filed as early as possible, preferably before January 1 of the calendar year in which the student desires admission.

For students who transfer to the School of Pharmacy from another accredited school of pharmacy, the minimum residence required for the degree is one academic year, that is, two semesters within a twelve-month period. Such students must complete at least thirty semester hours while in residence in the School of Pharmacy.

Graduate degrees offered through the School of Pharmacy are administered by the Graduate School of The University of North Carolina at Chapel Hill. These degrees include the Master of Science (M.S.) and Doctor of Philosophy (Ph.D.) in pharmaceutics, medicinal chemistry, pharmaceutical policy and evaluative sciences, and pharmacy practice.

For further information, please write to the Office of Student Affairs, School of Pharmacy.
School of Public Health

WILLIAM L. ROPER, DEAN
Allan B. Steckler, Associate Dean for Academic Programs
Ernest Schoenfeld, Associate Dean for Administration
Richard M. House, Associate Dean for Public Health Practice
William T. Small, Associate Dean for Students

Centers and Special Programs:

Carolina Federation of Environmental Programs
Frederic K. Pfleiderer, Director.

Computing and Information Services
Robert C. Schreiner, Director.

Environmental Resource Program
Frances M. Lynn.

Institute of Environmental Studies
Douglas J. Crawford-Brown, Interim Director.

Injury Prevention Research Center
Carol W. Runyan.

Public Health Leadership Program
Arnold D. Kaluzny.

Center for Public Health Practice
Richard M. House, Director.

Occupational and Environmental Health Studies Program
David A. Savitz.

The School of Public Health at The University of North Carolina at Chapel Hill was organized in 1936 as a division within the School of Medicine. Separate status as a school of public health was granted in 1939 and the first graduate degrees were awarded in 1940. The fourth school of public health in the nation, the UNC-Chapel Hill School of Public Health was the first such school established within a state university. It is one of twenty-seven such schools in the nation accredited by the Council on Education for Public Health.

The mission of the School of Public Health is to improve the health and well-being of the population. This mission is accomplished through the interaction of:

Teaching — to educate students to assume and to continue professional and leadership roles in public health practice, policy, research, and teaching.

Research (basic and applied) — to advance knowledge and understanding of the biological, social, behavioral, environmental, and economic factors affecting the health status of the population.

Service and Professional Practice — to provide broad-based technical assistance and consultation on public health issues; and to engage in scholarly community programs for the advancement of knowledge in the public and private sectors at local, state, national, and international levels.

Departments and curricula at the school include Biostatistics, Environmental Sciences and Engineering, Epidemiology, Health Policy and Administration, Maternal and Child Health, Nutrition, and Public Health Nursing. The undergraduate degree programs of the School of Public Health lead to a Bachelor of Science in Public Health (B.S.P.H.) degree. Students wishing to obtain the B.S.P.H. degree typically spend two years in the General College of UNC-Chapel Hill (or in equivalent academic study elsewhere) and two subsequent years under the administration of the School of Public Health. A few persons with a prior bachelor’s degree may also be admitted each year to study for the B.S.P.H. degree. Interested persons may obtain admission applications and additional information from the Director of Student Services, CB# 7400, 138 Rosenau Hall, The University of North Carolina at Chapel Hill, Chapel Hill, N.C. 27599-7400, or by calling (919) 966-2499.

Since enrollment in the B.S.P.H. degree programs is limited, completion of the prescribed freshman-sophomore prerequisites does not assure the student a position in the School of Public Health in the junior or a later academic year. Student selections are made, typically in the latter half of the sophomore year of course work, on a competitive basis with consideration of academic achievement and personal qualifications.

The undergraduate public health degree programs combine features of a broad-based education with study in the professional area of public health. These programs seek to prepare individuals for professional positions in health and related fields, to provide a firm base for later graduate study, and to provide for general enrichment of the future lives of the students.

There are four B.S.P.H. degree program majors: biostatistics, environmental science and policy, health policy and administration, and nutrition. The biostatistics major gives students preparation in application of quantitative knowledge to a variety of health and related matters dealing with the physical environment; the population; patterns of disease, disability, and death; and the costs and effects of health services. Course work in mathematics is a prerequisite for this major.

The undergraduate environmental science and policy major is directed toward developing an understanding of: (1) the physical principles governing behavior of the environment, such as the production, transport, and fate of materials in the air, water, oceans, ecological systems, etc.; (2) the historical development of society's response to environmental problems; (3) the scientific/social/political/economic factors involved in the generation, conception, and solution of environmental problems; and (4) the various viewpoints that might be adopted in analyzing the acceptability of proposed solutions. The goals require the student to gain a broad background in the sciences and mathematics, as well as specialized knowledge from the social sciences. The major emphasizes the principles of chemistry, biology, physics,
and mathematics as they apply to the behavior of environmental systems. Additional course work is taken in the more specialized fields of environmental science, ecology, marine sciences, and policy analysis.

The undergraduate major in health policy and administration prepares students to: (1) assume positions requiring basic administrative operational skills in such areas as financial management, supervision, planning, and general administration and (2) pursue graduate study in a variety of fields, including health, business and public administration, law, social work, and medicine. Basic economics and accounting courses are prerequisites for this major. Summer field placements for students may be in a hospital, nursing home, public health department, or other similar organization.

The nutrition undergraduate major emphasizes the relationship between nutrition and health. The program is designed to meet the educational objectives of students with at least two alternative career goals: (1) entry-level positions in community nutrition and dietetics, and (2) preprofessional study for careers in medicine, dentistry, and other health fields. Basic courses in biology and chemistry are prerequisites for admission.

Requirements for the B.S.P.H. degree are as follows:

1. At least 120 semester hours of courses, not counting physical education activities courses. A 2.0 (C) average on all work attempted at The University of North Carolina at Chapel Hill. The last thirty hours of degree credit taken in residence in Chapel Hill.

2. A freshman-sophomore load of approximately sixty semester hours of courses, which must include:
   a. English 11, 12, or 13.
   b. Course work through Foreign Language 3 (or placement credit in foreign language 4), with no graduation credit given for Foreign Language 1 of the high school foreign language.
   c. Two courses from the Mathematical Sciences option of the general college of the university.
   d. Biology 11, 11L, and an additional acceptable Natural Sciences Perspective course.
   e. Two acceptable Social Sciences Perspective courses (from two different departments).
   f. Two acceptable Aesthetic Perspective courses (one in literature and one in fine arts).
   g. One acceptable Philosophical Perspective course.
   h. Two acceptable Western Historical/Non-Western/Comparative Perspective courses, including one covering a period of Western History before 1700.
   i. Two Physical Education activities courses.

3. A junior-senior total of approximately sixty semester hours to include Biostatistics 101 or 110, Environmental Sciences and Engineering 51, Epidemiology 160, and a minimum of three electives outside the School of Public Health.

4. A satisfactory major in one of the four fields of concentration as prescribed in the following summaries of required courses (which include some courses that can be used also in meeting the requirements for mathematical science and perspective courses specified above for the freshman-sophomore years).

**Biostatistics**

**Freshman-Sophomore:**
- MATH 31, 32, 33
- COMP 14

**Junior-Senior:**
- BIOS 110, 111, 145, 150, 162, 164, 191
- MATH 81 or 83, 128 or 121, 116 or 147
- BIOL 53 or 54
- ENVR 51

**Environmental Science and Policy**

**Freshman-Sophomore:**
- BIOL 54
- CHEM 11, 11L, 21, 21L
- MATH 31, 32
- PHYS 24, 24L, 25, 25L
- COMP 14
- GEOL 41
- STAT 11 or BIOS 101 or BIOS 110

**Junior-Senior:**

Specific requirements for environmental science and policy depend upon the curriculum track chosen: environmental chemistry, environmental biology, environmental mathematics and physics. Although programs of study are tailored to the needs of individual students, a listing of requirements may be obtained from the director of undergraduate studies in the department of environmental science and engineering.

**Health Policy and Administration**

**Freshman-Sophomore:**
- BUSI 71
- ECON 10

**Two of the following four mathematical sciences courses:**
- MATH 22, 30, 31
- STAT 23

**Junior-Senior:**

HPAA 70, 71, 72, 73, 75, 82, 83, 85, 97/98, 145 and eight hours of elective course work within the department. There is a $400.00 field training fee for HPAA 98.

**Nutrition**

**Freshman-Sophomore:**
- CHEM 11, 11L, 21, 21L, 61
- BIOL 62, 62L
- PHYS 20
- MATH 30, 31
- NUTR 40 or 100

**Junior-Senior:**
- NUTR 100, 110, 111, 120, 150
- Track One Additional Requirements:
  - NUTR 121, 130, 132, 140, 141, 142
MCRO 51 or 55
POLI 41
SOCI 10 or ANTH 41
PSYC 10
HPAA 83

Additional information about the B.S.P.H. degree programs and requirements for admission to them can be obtained from the dean's office in the School of Public Health and from departments with an undergraduate public health major.

Course Description
PUBH 120 AIDS: Principles, Practices, and Politics (1). A one-credit elective course jointly given by the schools of Dentistry, Public Health, Nursing, Pharmacy, and Medicine. It is designed to provide a multifaceted understanding of the social, clinical, and biological aspects of the AIDS epidemic. The course will consist of weekly lectures or panel discussion by noted authorities on AIDS care and research. Attendance will be mandatory. A question-and-answer session with speakers will be held from 6:30-6:45. Undergraduates will be graded on a Pass/Fail system based on required class attendance and a short final term paper. Graduate students enrolled in PUBH 120, Section 2 will be graded on a standard grading system that allows for honors grades if students write substantial term papers. For more information, call Ted Avery at 966-2788.

Department of Biostatistics
CLARENCE EDWARD DAVIS, Interim Chair
Dana Quade, Deputy Chair for Administration
Lawrence L. Kupper, Deputy Chair for Academic Affairs

Professors
James Ralph Abernathy, Clarence Edward Davis,
Ronald William Helms, William Dean Kalsbeek,
Alan F. Karr, Gary Grove Koch, Lawrence Louis Kupper,
Barry H. Margolin, Dana Quade, Pranab Kumar Sen,
Richard Hyman Shachman,
Chirayath Madhavan Suchindran, Michael Joseph Symons.

Research Professors

Adjunct Professors
John Paul Creason, Edward L. Frome, Harry A. Guess,
Daniel Goodman Horvitz, Judith Thomasson Lessler,
Anders S. Lunde, Walter W. Piegersch,
William Kenneth Poole, Christopher Jude Portier,
Donald William Reinfurt, Ibrahim A. Salama,
Babubhai Vadidal Shah, Clarice Ring Weinberg.

Associate Professors
Keith Eldon Muller, Bahjat F. Qaqish,
Françoise Marie-Louise Seillier-Moiseiwitsch,
Kinh Nhue Truong, Craig David Turnbull.

Research Associate Professors
Shrikant Ishver Bangdiwala, James D. Hosking,
Michael J. Schell.

Adjunct Associate Professors
David Mahlon DeLong, Sandra Bartholomew Greene,
Frank Eanes Harrell Jr., Grace E. Kissling,
Lisa Morrissey LaVange, Kerry Lamont Lee,
Timothy M. Morgan, Steven M. Snapinn, Takashi Yanagawa.

Assistant Professors

Research Assistant Professor
Paul Wilder Stewart.

Adjunct Assistant Professors
Ingrid Ann Amara, Delton Atkinson, J. Michael Bowling,
Kerrie E. Boyle, Sonia Davis, Elizabeth Ray DeLong,
Ralph Alphonse DeMasi, Imogene McCanless Grimes,
Priscilla Alden Guild, Kerry B. Hafner,
Cindy Patricia Lawler, Marjolein V. Smith, Dalene K. Stangl,
Maura Ellen Stokes, Russell D. Wolfinger.

Professors Emeriti
Elizabeth Jackson Coulter, Regina Cecily Elandt-Johnson,
James Ennis Grizzle, Henry Bradley Wells.

Course Descriptions
BIOS 97 Readings in Biostatistics (1-3). Directed readings or laboratory study. May be taken more than once. Two to six laboratory hours a week. Fall, spring, and summer. Staff.

BIOS 99 Honors in Biostatistics (3). Prerequisite, Biostatistics 97. Directed research. Written and oral reports required, fall, spring, and summer. Staff.

BIOS 101 Fundamentals of Biostatistics (3). Introduction to procedures in collection, summarization, analysis, and presentation of data. Topics include sampling, experimentation, measurement, descriptive statistics, probability, confidence intervals, and tests of hypotheses. Fall, Quade.


BIOS 110 Principles of Statistical Inference (3). Prerequisite, knowledge of basic descriptive statistics. Major topics include elementary probability theory, probability distributions, estimation, tests of hypotheses, chi-squared procedures, regression, and correlation. Fall and spring. Turnbull, staff.

BIOS 111 Introduction to Statistical Computing and Data Management (3). Prerequisite, Biostatistics 101 or equivalent. Introduction to use of computers to process and analyze data, components of digital computers, characteristics of magnetic storage devices, use of JCL and utility programs, concepts and techniques of research data management, use of statistical program packages and interpretation. Fall, Staff.

BIOS 120 Special Techniques in Biometry (1-3). Special topics of current interest in Biometry. Fall, spring, and summer. Staff.

BIOS 124 Some Quantitative Methods in Planning and Evaluation (3). Prerequisite, Biostatistics 101 or equivalent, or permission of the instructor. Planning cycle, methods overview, data sources, FERD budgeting, health indices, measurement of goal fulfillment, achievement, effectiveness, efficiency, research designs, benefit cost analysis, decision analysis, probability utility, and decision trees. On demand. Staff.
BIOS 130 Research Issues in Mental Health Statistics (3). Prerequisites, Biostatistics 110 and Epidemiology 160, or permission of instructor. Concepts of measurement, history, and current status of classification schemes for mental disorders, methods of data analysis, and research designs. On demand. Turnbull.

BIOS 135 Probability and Statistics (4). Prerequisite, Math 32 or equivalent. Elements of descriptive statistics. Basics of probability; random variables and their probability distributions; special distributions, including the binomial, Poisson, normal, gamma; expectation and moments; linear combinations of random variables. Elements of estimation and hypothesis testing; analysis of variance; multiple regression; analysis of categorical data; some nonparametric methods. Particular attention is given to the statistical treatment of environmental science and engineering problems. Fall. Symons.

BIOS 140 Problems in Biostatistics (1 or more). Prerequisites to be arranged with the faculty in each case. A course for students of public health who wish to make a study of some special problem in the statistics of the life sciences and public health. Fall, spring, and summer. Staff.

BIOS 145 Principles of Experimental Analysis (3). Prerequisite, Biostatistics 110 or 135 or equivalent, and permission of instructor except for majors in the School of Public Health. Continuation of Biostatistics 110; the analysis of experimental and observational data, including multiple regression, and analysis of variance and covariance. Fall and spring. Staff.

BIOS 150 Elements of Probability and Statistical Inference (Genetics 150) (3). Prerequisite, Math 32 or equivalent. Fundamentals of probability; discrete and continuous distributions; functions of random variables; descriptive statistics; fundamentals of statistical inference, including estimation and hypothesis testing. Fall. Schachtman.

BIOS 160 Probability and Statistical Inference I (3). Prerequisite, Mathematics 33 or equivalent. Introduction to probability; discrete and continuous random variables; expectation theory; bivariate and multivariate distribution theory; regression and correlation; linear functions of random variables; theory of sampling; introduction to estimation and hypothesis testing. Fall. Kupper.

BIOS 161 Probability and Statistical Inference II (3). Prerequisite, Biostatistics 160. Distribution of functions of random variables; Helmhert transformation theory; central limit theorem and other asymptotic theory; estimation theory; maximum likelihood methods; hypothesis testing; power, Neyman-Pearson Theorem, likelihood ratio, score, and Wald tests; noncentral distributions. Spring. Kupper.

BIOS 162 Introductory Applied Statistics (3). Prerequisite, Biostatistics 111, 150, or equivalents. Approaches to problems of description, goodness of fit, univariate location and scale, bivariate independence and correlation, and comparison of independent or matched samples, involving categorical, discrete, normal, or ranked data. Spring. Quade.

BIOS 163 Intermediate Linear Models (3). Prerequisites, Biostatistics 107 or Math 147, BIOS 111, 145, 150, or equivalents. Regression analysis in matrix terms, general linear hypothesis, diagnostics, model building, one- and two-way ANOVA with fixed or random effects. Power algorithms, analysis of covariance. Fall. Muller.

BIOS 164 Sample Survey Methodology (Statistics 104) (3). Prerequisite, Biostatistics 150 or equivalent or permission of instructor. Fundamental principles and methods associated with survey sampling, giving primary attention to nonmathematical as possible a treatment of simple random sampling, stratified sampling, and cluster sampling. Also, techniques of questionnaire design, the problems of nonresponse, and sources of nonsampling errors. Practical experience in the applied aspects of sampling is provided by student participation in the design, execution, and analysis of an actual survey. Spring. Kalsbeek.

BIOS 165 Analysis of Categorical Data (3). Prerequisites, Biostatistics 145, 150, and 162, or permission of instructor. Introduction to the analysis of categorized data: including rates, ratios, proportions; relative risk and odds ratios; Cochran-Mantel-Haenszel procedure; survivorship and life table methods; linear models for categorical data. Applications in demography, epidemiology, and medicine. Fall. Koch.

BIOS 166 Applied Multivariate Analysis (Statistics 160) (3). Prerequisite, Biostatistics 163 or equivalent. Application of multivariate techniques, with emphasis on the use of computer programs. Multivariate analysis of variance, multivariate multiple regression, weighted least squares, principal component analysis, canonical correlation, and related techniques. Spring. Moller.


BIOS 170 Demographic Techniques I (3). Prerequisite, Biostatistics 101 or equivalent. Source and interpretation of demographic data; rates and ratios, standardization, complete and abridged life tables; estimation and projection of fertility, mortality, migration, and population composition. Fall. Suchindran, Basbourn.

BIOS 180 Introductory Survivorship Analysis (3). Prerequisite, Biostatistics 161 or permission of instructor. Introduction to concepts and techniques used in the analysis of time to event data, including censoring, hazard rates, estimation of survival curves, regression techniques, applications to clinical trials. Spring. Staff.

BIOS 191 Field Observation in Biostatistics (1). Field visits to, and evaluation of, major nonacademic biostatistical programs in the Research Triangle area. Field fee $25.00. Fall. Turnbull.

Department of Environmental Sciences and Engineering

DONALD L. FOX, Acting Chair

Professors
Richard N. L. Andrews, Russell F. Christman,
Douglas J. Crawford-Brown, Francis A. Digiano,
Donald L. Fox, William H. Glaze, Avram Gold,
Harvey Jeffries, Richard M. Kamens, Donald Lauria,
David Leith, Cass T. Miller, Frederic K. Pfauender,
Stephen Rappaport, Parker C. Reist, Philip C. Singer,
Mark D. Sobsey, James A. Swenberg, James Watson,
Dale Whittington.

Clinical Professor
Donald E. Francisco.

Joint Professors
John M. Bane, Edward L. Chaney, Milton S. Heath Jr.,
R. Eugene Johnston, Christopher S. Martens, David Moreau,
Hans W. Paerl.
Associate Professors
Michael D. Aitken, Louise M. Ball, George Christakos, Michael Flynn, Lori A. Todd, Donald G. Willhoit.

Assistant Professors

Research Associate Professor
Frances Lynn.

Research Assistant Professors
Dionissios Hristopoulos, David K. LaRamiah Sangaiah, Howard S. Weinberg.

Adjunct Professors

Adjunct Associate Professors

Adjunct Assistant Professors

Adjunct Research Assistant Professor
Stephen R. McDow.

Adjunct Instructor
Bobby M. Wilson.

Adjunct Lecturer
Raymond Hackney.

Kenan Professor Emeritus
Daniel Okun.

Professors Emeriti

Emeritus Lecturer
Ted M. Williams.

Course Descriptions
ENVR 51 Environmental Protection (3). Prerequisite, natural science requirement of the General College. A human-centered study of the health, economic, ecological, and aesthetic effects of our use of water, air, and land. The physical, biological, and chemical processes that occur in nature are studied, particularly as they relate to man's activities and his generation of waste residues, heat, noise, and radiation. Methods of control and for abatement for environmental degradation are presented. Three lecture hours a week. Fall and spring. Francisco.

ENVR 95 Analysis and Solution of Environmental Problems (3). Prerequisites, Environmental Science 51 and permission of instructor. A selected environmental problem is analyzed for causes, methods of mitigation, and feasibility of proposed solutions. One lecture and two seminar hours per week. Crawford-Brown.

ENVR 97 Selected Topics in Undergraduate Studies (1-3). Prerequisite, permission of instructor. Current topics of interest in environmental science and its application to understanding environmental issues are directed towards undergraduates. Topics and instructors will change. One to three lecture hours per week. Fall, spring, summer. Staff.


ENVR 98H Honors Thesis in Environmental Science and Policy (3). Prerequisite, permission of faculty advisor. Preparation of an honors thesis under the direction of a member of the Environmental Sciences and Engineering faculty. Oral examination by a faculty committee of the thesis is required. Fall, spring, summer. Staff.

ENVR 99 Undergraduate Research (3). Directed readings or laboratory study. Written report is required. May be taken more than once for credit. Six to nine hours per week. Fall, spring, and summer. Staff.

ENVR 100 Readings in Environmental Sciences and Engineering (1-6). Prerequisite, permission required for students outside the department. Extensive library study of a specific subject in environmental sciences and engineering. The subject and requirements of the project are arranged with the faculty in each instance. Fall, spring, and summer. Staff.

ENVR 101 Environmental Health (2). Survey course: relationship between environmental quality, human health, and welfare; contamination in human environment, physical, biological, and social factors; trade-offs regarding prevention and remediation. Lectures, group discussions, projects. Emphasizes critical thinking. Satisfies core SPH requirement. Two credit hours per week. Fall, spring, Glaze, staff.

ENVR 102 Principles and Applications of Environmental Engineering (3). Principles that govern the behavior of contaminants in air and water. Application of these principles to engineered processes that control air and water quality. Three lecture hours per week. Spring. Singer and Leith.

ENVR 119 Marine Biogeochemistry (MSC 119) (3). Prerequisites, one year biology plus organic and / or physical chemistry or one of MSC 101, GEOL 164, ENVR 122. Integrated application of biological and chemical concepts to understand the processes controlling the cycling of carbon, nutrients, and bioactive trace elements in seawater and marine sediments. Intended for science majors who have completed at least one year of biology plus organic and / or physical chemistry; or MSC 101, or GEOL 164, or ENVR 122. In all other cases, permission of the instructor is required. (Note: Advanced Graduate Students should consider MSC 140.) Fall (alternate years). Arnosti.

ENVR 122 Chemical Equilibria in Natural Waters (3). Prerequisites, Chemistry 11 and 21, and permission of instructor. Principles and applications of chemical equilibria to natural waters. Acid-base, solubility, complex formation, and redox reactions are discussed. Problem-solving approach is used to illustrate chemical speciation and environmental implications. Three lecture hours a week. Fall. Singer.
ENVR 122L Aquatic Chemistry Laboratory (1). Corequisite, Environmental Sciences and Engineering 122. Wet chemical and computational laboratory exercises illustrating principles and applications of chemical equilibria in natural waters. Two laboratory hours per week. Fall. Singer.

ENVR 123 Environmental Organic Chemistry (3). Prerequisite, physical chemistry. This course addresses the partitioning, exchange, and chemical transformations of organic contaminants in the water, air, and soil environments. Fall. Kamens, Christman.

ENVR 124 Environmental Analytical Chemistry (3). Sampling, sample treatment, data evaluation, electrochemical, spectrophotometric, and mass spectral techniques for students with no analytical chemistry background. Three lecture hours per week. Spring. Staff.

ENVR 127 Oceanography (Marine Sciences 101, Biology 126, Geology 101). (3). Prerequisites, one college-level course in Biology, Chemistry, Geology, or Physics. An interdisciplinary study of the sea and the interrelationship of marine processes. Three lecture hours a week. Fall, Neumann and staff. Spring. Frankenberg and staff.

ENVR 128 Chemical Oceanography (Marine Sciences 105) (3). Prerequisites, one semester of physical chemistry or Environmental Sciences 122, Chemistry 180, or equivalent. Consideration of the variation and abundance of sea water constituents, and the chemical, physical, and biological processes contributing to their distribution as well as problems of dispersion of conservative and nonconservative substances. Spring. Martens.


ENVR 131 Water and Wastewater Treatment Processes (2). Principles of the typical processes and operation of domestic water and wastewater treatment systems. Not open to MSE students. Spring and summer. Francisco.

ENVR 132 Limnology (3). Prerequisites: Introductory biology, chemistry, and physics. Basic aspects of freshwater ecosystem function. Emphasis on trophic level interactions and integration of physical, chemical, and biological principles for a holistic view of lake ecosystem dynamics. Three lecture hours per week, fall. Whalen.

ENVR 132L Limnology Lab (2). Prerequisite or co-requisite, ENVR 132, or permission of instructor. Demonstration and application of limnological field and laboratory techniques. Could involve one full day per week in the field or laboratory. Four laboratory hours per week, fall. Whalen.

ENVR 133 Sources, Transport, and Fate of Environmentally Important Materials (3). Prerequisites, one year of college chemistry, and one semester each of college physics, calculus, and biology or permission of the instructor. Multimedia processes important in environmental compartments. Development of predictive abilities for spatial and temporal alterations and movements of materials. Three lecture hours per week, spring. Staff.

ENVR 134 Ecological Microbiology (3). Prerequisite, one course in general microbiology. A description of microbial populations and communities, the environmental processes they influence, and how they can be controlled to the benefit of man. Two lecture and three laboratory hours per week. Spring. Pfaender.

ENVR 135 Biology in Environmental Science (4). Prerequisite, general chemistry. An introduction to biology, including principles of biochemistry, cell structure, classification, and ecology. Laboratory emphasizes techniques utilized in measurement and control of environmental pollution. Three lecture and two laboratory hours per week. Fall. Francisco.

ENVR 136 Biological Oceanography (Biology 140, Marine Sciences 104) (4). Prerequisites, Biology 54 or 105 or permission of instructor. Physical, chemical, and biological factors characterizing estuarine and marine environments emphasizing factors controlling plant and animal populations including methods of analysis, sampling, and identification. Five lectures and five laboratory hours a week. Summer. Staff.

ENVR 137 Ecology of Wetlands (Marine Sciences 137) (4). Prerequisites, one year of biology, one year of chemistry, one semester of ecology, and permission of instructor. An introduction to the functioning of freshwater and estuarine marsh and swamp ecosystems, with emphasis on systems of the southeastern United States. Fall. Staff.

ENVR 141 Air and Industrial Hygiene (4). Problem definition, sources of information, health effects, legislative framework, and control methods. Hazard recognition, evaluation, and remediation approaches for community and industrial environments. Fall. Fox.

ENVR 144 Industrial Toxicology (2). Toxicological assessment of and a case presentation of related exposure is given. A conceptual approach is utilized to design appropriate programs to prevent worker ill health due to industrial toxicant exposure. Two lecture hours per week. Spring. Staff.

ENVR 145 Introduction to Aerosol Science (4). Prerequisite, admission to the Department of Environmental Sciences and Engineering or permission of instructor. Physical and chemical principles underlying behavior of particles suspended in air. Topics include rectilinear and curvilinear motion of the particles in a force field, diffusion, evaporation and condensation, electrical and optical properties and particle coagulation, as well as the behavior of the cloud in toto. Three lecture and two laboratory hours a week. Fall. Reist, Leith.

ENVR 145L Aerosol Science Laboratory (2). Pre- or corequisite, Environmental Sciences 145. Basic laboratory exercises in aerosol sciences. Fall. Reist, Leith.

ENVR 147 Occupational Safety and Ergonomics (3). Fundamentals of occupational safety and ergonomics with emphasis on legislation and organization of industrial safety and ergonomics programs, including hazard recognition, analysis, control and motivational factors pertinent to industrial accident and cumulative trauma disorder prevention. Three lecture hours per week, fall. Coble and Ostendorf.

ENVR 149 Health Hazards of Industrial Operation (3). Prerequisite, ENVR 141. An introduction of the health hazards associated with the various units of operations of industry. Field trips to local industries are planned. Spring. Flynn.

ENVR 153 Environmental Management and Policy (3). (City and Regional Planning 153, Public Policy Analysis 153) Prerequisites, Environmental Science 51 or graduate standing. Intensive introduction to environmental management and policy, including environmental and health risks, policy institutions, processes, and instruments, policy analysis, and major elements of American environmental policy. Lectures and case studies. Three lecture hours per week. Fall. Andrews.

ENVR 154 Environmental Management and Policy Core Seminar (1). Prerequisites, graduate standing in the major, permission of the instructor. Core seminar in environmental management and policy; preparation of issue papers, discussion of current applications and professional practice. Two seminar hours per week. Fall. Andrews.

ENVR 158 Mathematical Methods of Environmental Modeling (3). Prerequisite, calculus. Mathematical basis of environmental models is reviewed, including an overview of axiomatic systems, differential equations, transforms, parameter estimation, and numerical simulations. Fall. Crawford-Brown.

ENVR 159 Analytic Thought and Environmental Risk (3). Prerequisite, permission of instructor. The principles of logical analysis are developed and applied to environmental problems. Concepts such as evidence, inference, and proof are formalized for calculations of environmental risk. Two lecture hours and one seminar hour per week. Spring. Crawford-Brown.

ENVR 164 Field Observations in Radiological Hygiene (2). Prerequisite, permission of instructor. Field observations of health physics practices at nuclear fuel cycle facilities and government nuclear facilities. Field fee, $200.00. Spring. Watson.

ENVR 165 Advanced Radiological Laboratory (2). Intensive radiological laboratory training at Oak Ridge Associated Universities. Tour of research facilities at Oak Ridge National Laboratory. Field fee, $225.00. Spring, alternate years. Crawford-Brown.

ENVR 167 Introduction to Medical Physics (2). Permission of instructor required. The physics of radiation therapy, diagnostic radiology, and nuclear medicine are introduced by practicing clinical physicists. Fall. Crawford-Brown, Chaney, Johnston, and Washburn.

ENVR 168 Comprehensive Radiation Biology (3). (Oral Diagnosis 190). Prerequisite, Biology 11 and Introductory Physics. A survey of the biological effects of ionizing and non-ionizing radiations ranging from the molecular to the ecosystem level. Related topics such as the effects of nuclear war and food irradiation also are included. Spring. Tyndall.

ENVR 171 Process Dynamics in Environmental Systems (3). Prerequisites, Math 124 or equivalent; permission of instructor. Application of fluid transport, mass transfer and chemical reactor principles to describe important processes in water/wastewater treatment, air pollution control and natural systems. Three lecture hours per week, fall. DiGiano.


ENVR 176 Introduction to Groundwater Engineering (3). Prerequisites, math through differential equations and some familiarity with fluid mechanics. This course covers the governing equations and analytical solutions for groundwater flow, contaminant transport in the aqueous phase, and water movement in the unsaturated zone. Three lecture hours per week. Fall. Miller.

ENVR 176L Subsurface Process Laboratory (2). Corequisite, Environmental Sciences and Engineering 176. Experimental and numerical modeling laboratory to investigate fluid flow and species transport in multiphase systems. Three laboratory hours per week. Fall. Miller.

ENVR 183 Special Topics in Water Resources (2). Prerequisite, permission of instructor. Interdisciplinary exploration of the principal issues involved in water resource planning, conservation, development, and management. Includes the nature of water resources, principal uses and conflicts, public objectives and policy issues, institutional arrangements, legal framework, planning, and governmental agency programs. Spring. Staff.

ENVR 190 Reading in Environmental Health Sciences (1-6). Prerequisite, permission of instructor. Extensive library study of a specific subject in Environmental Health Sciences. One to six seminar hours per week. Fall, spring, summer.

ENVR 191 Health and Ecological Effects of Environmental Agents (3). Prerequisites, basic biology, chemistry through organic, math through calculus; permission of instructor if prerequisites not met. Interactions of environmental agents (chemicals, infectious organisms, radiation) with biological systems including humans, with particular attention to routes of entry, distribution, metabolism, elimination, and mechanisms of adverse effects. Three lecture hours per week. Fall.

ENVR 192 Techniques in Environmental Health Sciences (2). Prerequisites, basic biology, chemistry through organic, math through calculus, or permission of instructor. A practical introduction to the measurement of biological end-points, emphasizing adverse effects of environmental agents and using laboratory and field techniques. Three laboratory hours per week, fall. Ball and Sobsey.

ENVR 193 Biochemical Toxicology (Biochemistry 142, Toxicology 142) (3). Prerequisites: CHEM 130 and one course in biochemistry, or permission of instructor. Biochemical actions of toxicants and assessment of cellular damage by biochemical measurements. Three lecture hours per week, spring. Holbrook.

ENVR 195 Environmental Health Microbiology (3). Prerequisite, introductory course in microbiology. Presentation of the microbes of public health importance in water, food, air, including their detection, occurrence, transport, and survival in the environment; epidemiology and risks from environmental exposure. Two lecture and two laboratory hours per week. Spring. Alternate years. Sobsey.

ENVR 198 Biophysical Theory of Environmental Health (3). The biophysical basis of models of intake, metabolism, transformation, and effects of environmental pollutants in organisms is developed. Evidence supporting the axiomatic structures is reviewed. Three lecture hours per week. Fall. Crawford-Brown.

Department of Epidemiology

DAVID A. SAVITZ, Chair

Professors
Gerardo Heiss, Michel Ibrahim, Berton Kaplan, Lenore Kohlmeier, John Seed, Carl Shy, David Savitz.

Kenan Professor
Barbara Hulka.

Alumni Distinguished Professor
Herman Tyrold.

Clinical Professors

Adjunct Professors
Associate Professors
Ralph Baric, J. Ed Hall, Irv Hertz-Picciotto, Dana Loomis, Beth Newman, Andrew Olshan, Charles Poole, Victor Schoenbach, Lola Stamm, June Stevens, James Thomas, David Weber, Kristen Weigle, Steven Wing.

Clinical Associate Professors
Brian Boehleck, Joanne Garrett, Peter Margolis, Bonnie Rogers, Desmond Runyan, Mark Williams.

Adjunct Associate Professors

Assistant Professors
Robert Millikan, Christine Moe, Wayne Rosamond, Rachel Royce, Marilyn Vine.

Research Assistant Professors
Lori Carter-Edward, Kathleen Conway, Duanping Lia.

Adjunct Assistant Professors
Michael Arrighi, Douglas Bell, Leigh Callahan, Glinda Cooper, Sara Ephross, Paul Feldblum, Peter Garrett, Debra Irwin, Maria Hall, Joanne Jordan, Denise Lewis, Margaret McCann, Dexter Morris, Andrew Rowland, Gregory Samsa, Vilma Santana, William Saunders, Joellen Schildkraut, Pamela Schwingl, Charles Gregory Smith, Paul Stang, Jack Taylor, Patricia Tennis, Emmanuel Walter, Suzanne West, Alice White.

Clinical Assistant Professors

Course Description
EPID 150 Principles of Epidemiology (3) Pre- or conquisite. Introductory Biostatistics. An introductory course that considers the meaning, scope, and applications of epidemiology and the uses of morbidity, mortality, and other vital statistics data in the scientific appraisal of community health. Fall and spring. Shy.

Department of Health Behavior and Health Education

JOANNE L. EARP, Chair

Professors

Research Professor
Robert DeVellis.

Adjunct Professors
Kenneth Mcclero, Barbara Rimer.

Associate Professors
Eugenia Eng, Susan T. Ennet, Vangie A. Foshee, Christine Jackson, Carol W. Runyan.

Clinical Associate Professor
Richard M. House.

Research Associate Professor
Susan Blaock.

Adjunct Associate Professors
Christopher Ringwalt, Lynn Blanchard.

Assistant Professors
Carolyn P. Parks, Sandra C. Quinn.

Clinical Assistant Professor
Ethel J. Jackson.

Research Assistant Professors
James Michael Bowling, Carolyn D. Crump.

Adjunct Assistant Professors

Adjunct Instructors
Lecturers
Mary Altpeter, Thomas Arcury, Sallie Benedict, Linda Carl, Forrest M. Council, Susan Gaylord, Janet Heath, Linda Kinsinger, Anna Waller.

Kenan Professor Emeritus
John Hatch.

Professors Emeriti and Emerita

Clinical Professor Emeritus
Leonard Dawson.

Clinical Associate Professor Emerita
Harriet Barr.

The Bachelor of Science in Public Health in the department of Health Behavior and Health Education is no longer offered; however, undergraduate courses are still available for undergraduates to take.

Course Descriptions

HBHE 125 Injury as a Public Health Problem (Epidemiology 125) (3). Prerequisite, EPID 160 or equivalent. This course considers the causes and consequences of traumatic injury within developmental, social, and economic contexts, and dilemmas in injury prevention. Injuries associated with transportation, violence, and the home and occupational environments are included. Three lecture hours per week. Spring. Runyan, Kotch.

HBHE 140, 141, 142 Problems in Health Education (1 or more). Prerequisites to be arranged with the faculty in each individual case, depending upon the problem that is to be studied. A course for students of public health who wish to make an intensive study of some special problem in health education. Fall, spring, and summer. Staff.

HBHE 160 Introduction to Women's Health and Health Education (Women's Studies 161) (3). Permission of instructor. Provides an overview of women's health emphasizing their specific interests as family and community members, as patients, and as health professionals. Implications for health education practice and research will be discussed. Two lecture and two seminar hours a week. Every other fall. Earp.

HBHE 164 Health Policy and Aging (Health Policy and Administration 164) (3). Critical examination of aging policy in light of empirical findings on the elderly's economic power. Utilization patterns, prevalence of dependency, and the cost-effectiveness of policy options, including long-term care. Three seminar hours a week. Mutran.

HBHE 172 Planning Health Promotion in Medical and Worksite Settings (4). This course builds skills in developing the components of health care and worksite health promotion programming, including needs assessment, message development, message channel options, health counseling, and training. Four lecture hours per week. Crump.

HBHE 189 Adolescent Health (MHCH 226, PHNU 226) (3). Topics covered include the epidemiology of health problems, developmental issues, health services, and psychosocial influences on adolescent problem behaviors. Course material will be useful for research generation and practical application. Spring. Foshee.
Adjunct Assistant Professors
Deborah A. L. Amaral, Marcia A. Angle, Ruth V. Baldwin, Jan P. Clement, Gary L. Freed, Joseph W. Hales, Dean M. Harris, Frederick K. Homan, Theresa L. Kauf, David C. Kibbe, Donna J. Rabiner, Julie Vann.

Research Assistant Professors
Shulamit L. Bernard, Lucy A. Savitz.

Clinical Instructors
Barbara O. Chavious, Gary S. Palmer, Robert C. Schreiner.

Adjunct Instructors

Lecturer
Ernest Schoenfeld.

Adjunct Lecturers
David S. Abernethy, Kathryn B. Ahlport, Marjorie A. Satinsky.

Professors Emeriti
Harry T. Phillips, Morris Schaefer.

Clinical Professors Emeriti
James P. Dixon, Jacob Koorn Jr., Robert A. Loddegaard.

Associate Professors Emeriti

Course Descriptions
HPAA 70 Introduction to Health Services Systems (3). Corequisite, Health Policy 71. Permission of Health Policy B.S.P.H. program director, except for Health Policy and Health Behavior and Health Education majors. An introduction to the current status, trends, practices, and issues in the delivery of health services. Fall. Staff.

HPAA 71 Orientation to Health Services Organizations (2). Corequisite, HPAA 70. Permission of Health Policy B.S.P.H. program director, except for Health Policy and Health Behavior and Health Education majors. Opportunities for those with limited exposure to health-related organizations to visit several operating agencies as an approach to understanding the U.S. health system. Fall. Staff.


HPAA 75 Foundations of Health Care Financial Management (3). Prerequisite, BUSI 71. Permission of instructor for non-B.S.P.H. students. Basic methods and techniques in financial management of health-care programs including financial statement analysis, cost determination and allocation, pricing of services, and budgeting. Spring. Porto.

HPAA 82 Introduction to Law and Ethics in Health Administration (3). Prerequisite, Health Policy 70. An introduction to health law and ethics for health administration undergraduate seniors. Fall. Harris.

HPAA 83 Introduction to Health Organization Structure, Functions, and Design (3). Prerequisite, senior standing, or permission of instructor. Basic concepts of organization structure, functions, and design, and relevant administrative behavior, as applied to health and human services organizations. Fall. Files. Bender.

HPAA 85 Computers in Health Administration (3). Prerequisite, permission of instructor required for non-Health Policy majors. The purpose of this course is to provide the student with a general introduction to the theory and to the major applications of computers, especially microcomputers. Fall. Porto.

HPAA 91 Readings in Health Policy and Administration (3-6). For undergraduates enrolled in the department's bachelor's degree program. Permission of instructor required. Directed readings or research; written reports are required. Fall, spring, summer. Staff.

HPAA 97 Field Training in Health Policy and Administration I (3). Prerequisite, Health Policy majors only. The first six weeks of a supervised twelve-week administrative internship in a health care organization. Required of all BSPH students in HPAA. Summer. Staff.

HPAA 98 Field Training in Health Policy and Administration I (1-6). Prerequisite, Health Policy majors only. Orientation to health services organizations, under faculty supervision. Relevant to School of Public Health course work in all majors; can contribute to development of acceptable plans for summer internships. (Field Training Fee: $400.00.) Summer. Staff.

HPAA 99 Honors Research in Health Policy and Administration (6-9). Prerequisites, overall GPA 3.3 by end of junior year in all UNC-Chapel Hill courses, permission of department chair. Readings and seminars for undergraduates who show potential and talent to do research. Students will carry out a special project and prepare an honors thesis based on the project. Fall, spring, summer. Staff.

HPAA 101 Information Management in Health Policy and Administration (1). Introduces students to methods for critically evaluating public health literature and using computers to identify, file, and retrieve information. Fall. Staff.

HPAA 102 Concepts of Health Administration (3). Survey of health and human services organization and management, including concepts of administrative systems, government, legal and public interest aspects, organizational behavior, and relations. Spring. Allen.

HPAA 104 Issues in Managing Health Care Organizations (Var.). Through presentations of leaders in the health care field and class discussion, problems, issues, and changes in health care policy and administration will be explored. Spring. Porto.

HPAA 105 Issues in Health Policy (1-3). Lectures on current topics in health policy. Spring. Staff.

HPAA 106 Issues in Health Care (1-2). Lectures on current topics in health care. Fall, spring. Fried, Bender.

HPAA 107 Theory and Practice of Public Health Policy and Administration (3). Policy and management issues and ideals, including their historical derivations and international implications, in relation to current state and local practice. Fall, spring. Staff.

HPAA 109 Concurrent Field Training in Health Policy and Administration (1-6). Supervised observation of service activities in health service organizations. Fall, spring. Staff.

HPAA 110 International and Comparative Health Administration (3). Prerequisite, permission of instructor. International career interests desirable. Study of various health problems and responsive program systems in different (more or less developed) countries, with a comparative framework, examining special experiences, general lessons, and possibilities for cooperation. Fall. Bender, Veney.
HPAA 121 Hospital Organization and Administration (3).
Comprehensive overview of general hospitals, including organizational
structure, governance, medical staff, external relationships, departmental
organization, strategic planning, financing regulation, accreditation, and
quality assessment. Addressed from perspective of chief executive officer.
Fall. Staff.

HPAA 122 Long-Term Care Administration I (3). Introduction to adminis-
tration of long-term care facilities. Evolution of long-term care and survey
of the current field. Examination of state and national requirements. Fall.
Allen.

HPAA 123 Long-Term Care Administration II (3). Prerequisite, Health
Policy 122 or permission of instructor. Nursing home care, organization
monitoring, costs, and financing. Exploration of trends and issues such as
cost controls, productivity, quality assurance, medical staffing, and organi-

HPAA 127 Introduction to Dental Public Health (3). Prerequisite, permis-
sion of instructor required. Survey of the theory and practice of dental pub-
lic health with an emphasis on basic knowledge and skills necessary for
planning and evaluating dental public health programs. Fall. Rozier, Hunt.

HPAA 128 Pharmaceutical Research, Development, and Marketing
(PHAD 180) (3). This course acquaints future regulators, policy analysts,
and corporate managers with the internal and external environments influ-
encing decisions making and management in the discovery, development,
and marketing of pharmaceuticals. Fall. Norwood.

HPAA 130 Organizational Design and Behavior of Health Institutions
(3). Overview of organizational theory and empirical findings appropriate
to the design and behavior of health care organizations. Topics include the
design of the organization, its performance, and relationship to the environ-
ment. Spring. Kaluzny.

HPAA 137 Cultural Diversity for Healthcare Administrators (3). Designed
to introduce students to personal and professional issues in managing cul-
tural diversity in health care organizations. Fall. Fischer.

HPAA 138 Conflict Resolution and Negotiation for Managers (3). (PWAD
180) (3). Conflict resolution and negotiating skills for healthcare administra-
tors. Listening, assertion, negotiation, and mediation. Fall and spring.
Fischer, Gersch.

HPAA 139 Development of Personal Effectiveness (3). Prerequisite, per-
mition of instructor. Based on the assumption that personal effectiveness
depends on being able to think clearly, this course encourages development
of rational thinking through understanding the relationship between think-
ing and feelings. Spring. Fischer.

HPAA 140 Readings in Health Policy and Administration (1-4). Staff.

HPAA 141 Marketing for Not-for-Profit Organizations (3). Prerequisite,
permission of instructor. Application of basic principles of marketing and
marketing decision models to problems in health care, and other not-for-
profit organizations. Spring. Savitz.

HPAA 144 Statistical Methods for Health Policy and Administration (3).
Introduction of linear model approach to analysis of data in health care set-
tings. Topics include probability distributions, estimation tests of hypothe-
ses, methods in multiple regression, and analysis of variance and
covariance. Fall, spring, summer. Staff.

HPAA 145 Introduction to Strategic Planning and Marketing (3).
Prerequisite, permission of instructor. An introduction to the philosophy,
methods, and models of strategic planning in health care systems. Related
disciplines include marketing, management, organizations, systems, and
decision analyses. Spring. Savitz.

HPAA 155 Introduction to Management Information Systems in Health
Care (3). Conceptual and practical aspects in the analysis, development,
and utilization of computer-based information and control systems with
emphasis on application to the health care environment. Spring. Schreiner.

HPAA 161 Strategies for Prevention (3). This course discusses the effects
of public policies for prevention on rates of illness, injury, and premature
death. Fall. Fischer.

HPAA 163 Geriatric Health and Medical Care (3). Presents a comprehen-
sive survey of geriatric health and medical care from a clinical and policy
perspective. Spring. Staff.

HPAA 164 Health Policy and Aging (Health Behavior and Health
Education 164) (3). Critical examination of aging policy in light of empirical
findings on the elderly's economic power. Utilization patterns, prevalence of
dependency, and the cost-effectiveness of policy options, including long-

HPAA 170 Economic Perspectives in Health Policy and Administration
(3). Prerequisite, Economics 10, and permission of instructor. Introduction
to health economics principles as applied to major sectors of U.S. health care
delivery system. Spring, summer. Kilpatrick.

HPAA 176 Introduction to Health Services Research (3). Prerequisites,
M.P.H. student. Provides systematic introduction to selected methods for
health services research, literature, and research writing. Fall, spring. Staff.

HPAA 180 Health Law (3). The law and the legal decision-making
processes and their relationship to delivery of health services. Fall. Gilbert.

HPAA 181 Ethics and the Practice of Pharmacy (PHAD 181) (3).
Prerequisites, PHAD 89 and PHIFR 21, and permission of instructor. A discus-
sion of ethical theories and themes that influence modern society and
application of normative ethics to medicine, health care, and the profession
of pharmacy. Fall. Staff.

HPAA 185 Ethical Issues (3). Nature of ethical thought and reasoning;
contributions of religious and ethical thought and historical and current issues. Sections on
professional practice issues and health policy issues. Fall. Allen.

HPAA 190 Psychosocial Aspects of Aging (Health Behavior and Health
Education 190, PHNU 190) (3). Prerequisite, permission of instructor
required. Psychosocial aspects of the aging process and of old age. Needs of
the elderly and their reactions to agencies and programs for the aged. Fall.
Mutran.

Department of Nutrition

STEVEN H. ZEISEL, Chair

Professors
John J. B. Anderson, Stephen G. Chaney, Rosalind A. Coleman,
William D. Heizer, Lenore Kohlmeier, Robert G. McMurray,
Barry M. Popkin, James Swenberg, Ronald G. Thurman,
Louis E. Underwood, Steven H. Zeisel.

Research Professors
Martin Kohlmeier, Rudolf Salganik.

Clinical Professor
John B. Longenecker.

Adjunct Professors
Daniel E. Carroll, Mildred S. Seelig, Hugh Tucker.

Adjunct Associate Professors
Meinda Beck, Annette Cowan, Rebecca Freeman,
Sanford Graner, Frank Kari, Miriam Peterson
Associate Professors
Linda S. Adair, Janice M. Dodds, Anthony C. Hackney, Pamela Haines, Mark Koruda, Hazel June Stevens, Boyd R. Switzer.

Research Associate Professor
Barbara H. Dennis.

Clinical Associate Professor
Bethany Lorraine Jackson.

Assistant Professors
Alice S. Ammerman, Marci Campbell, Kerry-Ann da Costa, Joyce Harp, Mark J. Koruda, Dexter S. Louie.

Research Assistant Professors
Craig Dennis Albright, Kristine Kelsey, Gwen Murphy, Anna Maria Siega-Riz, Namvar Zohoori.

Clinical Assistant Professors
Carolyn J. H. Barrett, Chuck Lee, Claudia Plaisted.

Adjunct Assistant Professors
Arnette T. Cowan, Sanford Garner, Frank W. Kari, Miriam Peterson.

Research Instructor
Bobbette A. Jones.

Clinical Instructor
Karen A. Cooksey.

Adjunct Instructor
Rebecca S. Freeman.

Professors Emeriti
Joseph Chike Edozien, Mildred Kaufman.

Associate Professor Emerita
Rebecca Broach Bryan.

Clinical Associate Professor Emerita
MaryAnn C. Farthing.

Visiting Instructors
Marc Doolittle, Suzette Goldman

Course Descriptions

**NUTR 40 Introduction to Human Nutrition** (3). Prerequisite, Biology 11 and 111 or equivalent. Human nutrition and relationship to health and disease processes. Presented as an integrated body of knowledge derived from several disciplines. Functions and sources of humans’ food. The relevance of nutrition to individual well-being, social welfare, and economic development. For undergraduates who do not intend to major in nutrition. Fall. Anderson.

**NUTR 85 Introduction to Nutrition in Medicine** (1). Prerequisite, Nutrition 100. A series of clinical experiences in which students are exposed to the practice of medical nutrition in the hospital. Designed for nutrition majors in the premed track. Fall. Levine, Kohlmeier.

**NUTR 98 Undergraduate Research in Nutrition** (3). For undergraduates enrolled in the department’s bachelor’s degree program. Permission required from faculty research director. Directed readings or laboratory study on a selected topic. May be taken more than once for credit. Fall, spring, and summer. Faculty.

**NUTR 99 Honors Research in Nutrition** (3). Permission required from faculty research director. Directed readings or laboratory study on a selected topic. Requires a written proposal to be submitted to and approved by B.S.P.H. committee and faculty research director. A written report is required. May be taken more than once. Six laboratory hours per week. Fall, spring, and summer. Faculty.

**NUTR 100 Introduction to Medical Nutrition** (3). Prerequisites, Chemistry 11, 21 and Biology 11. Function of the human body focusing on nutrient interaction. Review of structure and function of cells and organs. For advanced undergraduates and graduate students needing to enhance background prior to Nutrition 110. Spring. Switzer.

**NUTR 110 Nutritional Biochemistry and Normal Cell Function** (3). Prerequisites, Nutrition 100, Chemistry 11, 21 & Biology 11 or equivalent. Covers normal cell biochemistry and physiology, emphasizing roles of nutrients throughout the life cycle: chemistry and metabolism of proteins, nucleic acids, carbohydrates, lipids; endocrine/neuroendocrine regulation of metabolism. Fall. da Costa.

**NUTR 111 Nutrition of Children and Mothers** (3). Prerequisite, Nutrition 100 or equivalent. Biologic bases for nutrient requirements and dietary recommendations as they vary throughout the life cycle. Covers the nutritional needs of women during childbearing years, infants, children, adolescents, and aging adults. Fall. Adair.

**NUTR 112 Nutrition in the Elderly** (1). Prerequisite, NUTR 100 or equivalent. Special dietary and nutritional needs and conditions of the elderly. Includes overview of biology and demography of aging discussion of nutritional requirements and assessments of the elderly as well as nutrition in health and various disease states of the elderly. Fall. Zohoori.

**NUTR 120 Nutritional Biochemistry and Disease Processes** (3). Prerequisite, Nutrition 110. Covers biochemistry and pathophysiology of diseases with emphasis on roles of nutrients in prevention causation and/or therapy. Materials from prerequisite used as basis for study of molecular mechanisms responsible for disease processes. Spring. Anderson.

**NUTR 121 Clinical Applications: Diet Therapy** (3). Corequisite, Nutrition 120. Course designed to examine the rationale and implementation of diet therapy and nutrition support in the prevention of treatment of disease. Spring. Barrett.

**NUTR 132 Dietary Change in Individuals** (3). Prerequisite, Nutrition 40 or equivalent. Functions of a nutritionist working with individuals, emphasizing interviewing, assessment, nutrition care planning, counseling, and service documentation in prevention and therapeutic situations. Practice in the use of current dietary analysis software programs and development of educational materials included. Fall. Kelsey.

**NUTR 140 Food Science and Meal Preparation** (2). Prerequisite, Nutrition 100. Introduction to foods important in the American diet; composition and properties; factors affecting the selection, handling, and preparation of foods; menu planning and meal preparation. Laboratory fee: $50.00. Fall. Note.

**NUTR 141 Food Service Systems Management** (3). Instructor’s permission required for nonmajors. Basic concepts of institutional food service systems management applied to small- and medium-sized health care facilities in the community. Two lecture hours and two laboratory hours per week. Fall, spring, Goldman.
NUTR 142 Food Production, Processing, and Packaging (2). Prerequisite, Nutrition 100 or equivalent. Impact of all parts of food industry on availability and nutritive value of foods, and food safety. Spring. Carroll.

NUTR 150 Nutrition Policy and Programs (2). Prerequisite, Nutrition 40. Introduction to program and policy approaches for improving nutritional status of populations. Broad basis and rationale for nutrition policy introduced. Design, implementation of relevant food, nutrition, health programs examined. Spring. Haines.

NUTR 170 Readings on Nutrition (Var.). Permission of instructor is required. Reading and tutorial guidance in special areas of nutrition. Fall, spring, summer. Faculty.

NUTR 190 Nutrition Research (Var.). Permission of instructor required. Individual arrangements with faculty for bachelor's and master's students to participate in ongoing research. Fall, spring, summer. Faculty.

Division of Continuing Education

NORMAN LOEWENTHAL, Interim Director
Armando Parés, Associate Director for Credit Programs
Cheryl Kemp, Associate Director for Student Services
Annette Madden, Associate Director for Conferences and Institutes
Brick Oettinger, Correctional Education

The Division of Continuing Education is the University's arm for extending credit and noncredit instruction to North Carolinians who wish to further their education on a part-time basis or through short, intensive periods of study. The division is housed in The William and Ida Friday Continuing Education Center, a modern facility designed to accommodate a variety of continuing education activities.

Through Independent Studies, students may complete degree-related correspondence courses under the direction of faculty members from UNC-Chapel Hill and seven other member institutions of The University of North Carolina system. Carolina Courses Online is a distance education program that offers courses via the Internet. Class sessions are not required, but courses generally follow the semester schedule. World Wide Web access and e-mail are required in order to enroll. Continuing Studies enables part-time students to enroll in undergraduate and graduate evening and daytime courses. Off-Campus Credit Studies provides classroom instruction in locations away from campus or in flexible time formats. The Correctional Education program enables qualified inmates in the North Carolina prison system to take correspondence courses and on-site classes, and provides assistance in transition to study release.

The office of Conferences and Institutes provides consultative and management services in developing continuing education programs in a variety of formats. A number of noncredit conferences and institutes are held at UNC-Chapel Hill each year, usually with the cosponsorship of a University school or department or an educational or professional organization. The division sponsors the state office for Elderhostel, a program that enables persons over the age of sixty to spend a week on college campuses, taking courses and participating in enrichment activities.

The Developmental Disabilities Training Institute provides training to persons working with mentally retarded and developmentally disabled individuals at the community and institutional levels.
Academic Procedures

Regulations and Requirements

Policy on Awarding of Undergraduate Degrees and Transcript Notations

College of Arts and Sciences

A student can be awarded only one bachelor degree at The University of North Carolina at Chapel Hill. The Bachelor of Arts diploma does not specify the major field. The Bachelor of Science diploma does specify the major field. The official transcript will specify the major in the case of either degree. An exception for earning two undergraduate degrees is made after receiving a B.A. or B.S. if a student returns to complete a second degree in Nursing, Public Health, or Clinical Laboratory Science. Students need the prior approval of the appropriate dean in order to enter these programs and receive a second degree.

Students approved to work in double major programs receive one Bachelor of Arts diploma. The official transcript will note both majors, for example, “Bachelor of Arts English and History.” Double major students need to complete all the requirements for both majors by the degree award date in order to receive a Bachelor of Arts degree with both majors noted on the official transcript.

Students approved to work on a combination of a Bachelor of Science and a Bachelor of Arts degree will receive a diploma only for the Bachelor of Science degree. The transcript will note the Bachelor of Science degree with its major, for example, “Bachelor of Science Degree Biology.” An additional remark specifies the second major for example, “Second Major in Political Science.” All the requirements for both majors need to be completed by the degree award date in order to have both majors noted on the official transcript.

Students working on two Bachelor of Science degrees will receive one diploma with only the primary major specified. The student can select the primary major. The transcript will specify both majors, for example, “Bachelor of Science in Chemistry and Physics.” Students must complete all requirements for both majors by the degree award date in order to have both majors noted on the official transcript.

Related Policy

When course requirements or other requirements for a degree are completed after a degree award date, including make-up work such as in the case of courses with a grade of “incomplete” (IN), the degree is awarded on the next degree date. Course work taken after the degree award date cannot be used to change a degree already awarded or to retroactively complete a degree. Students can elect to delay their graduation until the next degree award date in order to complete all degree requirements when they are pursuing degrees with more than one major and have prior approval from their dean.

Adjustments are made to a transcript, but generally only for one year following the date of graduation. Grade protests, for instance, can be initiated after graduation. As long as all graduation requirements have been met, temporary grades can be completed after the date of graduation and the GPA will change accordingly. However, even when temporary grades are completed after the date of graduation, the student status at the time of graduation is not affected. Graduation with “Distinction,” for instance, is based only on GPA at the date of graduation, and may not be awarded retroactively. Similarly, grade changes after Dean’s List status is determined will not change the student’s status, neither adding nor removing the Dean’s List notation.

Students who neglect to declare a second major or a minor at the time of graduation may verify their requirements and have the annotation added to their transcript for one year after the graduation date.

The University does not recognize the regulations published in this Bulletin as valid beyond the academic year for which it is published. The faculty reserve the right to make any changes deemed necessary in the curricula and in regulations. Ordinarily, students may expect to receive a degree by fulfilling the requirements of a curriculum as specified in the Undergraduate Bulletin which was in force when they first entered the University. The University, however, is not strictly obligated to fulfill this expectation or to offer in any particular year a course listed in this bulletin.

Students are responsible for observing the procedures, regulations, and requirements of the University as they are set forth here and in other official University publications. This section describes many of the requirements and regulations that apply to undergraduates, but it is not a complete list of all such regulations and requirements.

Unless otherwise stated, the regulations described below will govern the academic progress of the students from their first year in the General College through their final semester in the College of Arts and Sciences or one of the undergraduate professional schools. The staff of the University will gladly provide students with detailed information concerning their program or academic problems, but this does not relieve any student of individual responsibility for meeting the University’s requirements and observing University regulations.
Registration

General Policies

The majority of UNC-Chapel Hill students use the touch-tone telephone registration systems (1-800 system: 1-800-599-2044; CAROLINE system: 1-919-962-UNC1 [8621]) to register for courses. There are two telephone registration periods for each fall, spring, first and second summer terms. The time periods are referred to as Telephone Registration Period I and Telephone Registration Period II. Specific steps toward accomplishing registration are outlined in the Directory of Classes, which is published in March for the summer and fall terms, and in October for the spring term. Students should refer to the directories for instructions regarding registration.

Students who register during Telephone Registration Period I must pay tuition and fees or give notice of anticipated aid to the university cashier by the published tuition and fees due date or their schedule will be cancelled and all their classes dropped before the beginning of classes.

Students who register during Telephone Registration Period II must pay estimated tuition and fees or give notice of anticipated aid to the university cashier before they can register for that semester.

North Carolina law also requires that no person shall attend a college or university in North Carolina without presenting a certificate of immunization to the college or university, on or before the first day of matriculation, which indicates that the student has received immunizations required by law. New students must provide the director of student health with an immunization record certified by a physician. Students who fail to present the required certificate of immunization within thirty days of enrollment will not be permitted to continue their enrollment at the University.

Students who register after the date designated for official registration must pay an additional fee of $10.00 for late registration. If the delay results from circumstances clearly beyond the student's control, an appeal may be made in writing to the registrar. The appeal must show sufficient justification for the delay and has to be approved by the dean of the school in which the student is enrolled. Approval of the dean is required before the appeal is submitted to the registrar's office.

Registration for credit for any course at the start of the semester is limited to the first five days of instruction, unless a late registration is approved by the course instructor and the student's dean or academic adviser. Registration changes which are limited to dropping courses may be effected by the student during the first ten days of instruction and must be in accordance with University requirements governing minimum academic hours of enrollment. After these deadlines, students must obtain a Registration/Drop/Add Form from a department or their school dean's office with appropriate signatures as required by their dean. Any courses added after the first five days of instruction must also be approved by the teaching department, specifically course instructors.

To complete the registration process, students must be classified according to residence status (for tuition purposes), must obtain an identification card, and must complete any required physical examinations. Failure to fulfill these or other registration procedures will render the registration incomplete and subject to immediate termination.

Information submitted on admission and registration forms is instrumental in determining admission priority and academic status. False statements will be considered a violation of the University's Honor Code. Concealment of required information is falsification of the record.

A student must make application and register in his or her full legal name.

Cancellation of Enrollment

A cancellation is, in effect, the same as not having a registration at all. No entry is made on the student's permanent record and no tuition and fees are charged.

A Registration Cancellation will be processed on any student who has a "Registration Cancellation University Stop" on the tuition and fees due date for each term. A Cancellation Notice will be mailed to the student's Grade/Billing Address instead of a Personal Data Form (PDF) which confirms registration for the semester. A cancellation will be processed if a student is: 1) not cleared financially; or 2) not academically eligible to continue in school; or 3) shows a Cashier Stop, Undergraduate Admissions Stop, Dean's Office Stop, or Student Health Services Cancellation Stop.

A Registration Cancellation Notice is processed on any student who has not registered for courses as of the tuition and fees due date each term.

Students may return the Personal Data Form to the University Registrar's Office prior to the beginning of classes with a notation on the form requesting a Registration Cancellation and the cancellation request will be processed automatically. If the student does not receive a PDF and wants to cancel registration, the student may either come by the University Registrar's Office or call to request a "Registration Cancellation." However, after classes begin, students must process the cancellation through their school dean's office.

General College Students
(freshmen and sophomores)

Each General College student is approved for classes by his or her General College adviser. New students will be notified, before their arrival in Chapel Hill, of their General College adviser's name and office number. They must report to their adviser at the appointed time in order to make course selections.
Juniors and Seniors

Students in one of the upper colleges must report to the office of the appropriate dean or department for assignment to a faculty adviser. The student's program of study is then arranged in consultation with this adviser and officially approved. Students in the College of Arts and Sciences follow a dual advising system, with advisers in the office of the associate dean (third floor, Steele Building) and in the major department(s). Students must contact the departmental adviser to receive a new Personal Identification Number for registration each semester. Departmental advisers are excellent resources for students' questions that are specific to the major. However, only the Arts and Sciences adviser is authorized to determine the student's total graduation requirements by means of an academic worksheet. In some curricula, the student's only adviser will be on staff of the dean's office, in which case the adviser will handle the entire registration process for the student, except for actually registering the student for courses in the computer system.

Cancellation of Course Registration

A department (or curriculum) in the College of Arts and Sciences may cancel students' registrations in any courses offered in that department if registered students fail to attend both of the first two class meetings of the term during which the courses are offered. Students enrolled in courses that meet only once each week may have their registrations canceled if they do not attend both of the first class meetings. The deans in the General College and the College of Arts and Sciences will be responsible for informing departments of approved late-arrival students who cannot attend the first two class meetings because of illness or other reasons approved by a dean.

If such action is taken by a department, the registration openings resulting from these cancellations will be offered to other students seeking enrollment in the courses during the official add period (first five days of classes) or thereafter, as determined by the instructor of the class or the department or school. Departments and academic advisers will inform students unable to gain enrollment in courses before the second class meeting that they may seek enrollment in departments and curricula where this policy may be administered.

Before the last day to reduce course load for financial credit, departments can drop students' courses in the computer system based on nonclass attendance. However, after that date, departments are responsible for submitting a completed Registration/Drop/Add Form to the Registrar's Office (105 Hanes Hall) for all students whose registrations have been cancelled and for submitting the names and student identification numbers to the college in which the students are currently enrolled. The appropriate college will inform each student of the action taken and take necessary steps to insure that the student meets the minimum semester-hour enrollment allowed by the University.

Auditing of Courses

To audit a course, students must get written permission from the course instructor and from the department chair. Students can request this permission only after the end of the official registration period.

Full-time students cannot audit (1) courses in the Division of Continuing Education (Continuing Studies, Carolina Courses Online, Independent Studies, or Tutorial Programs), or (2) a course preparing the student for "Credit-By-Examination." Students usually audit lecture courses because they accommodate auditors more easily than other classes.

Students auditing a course do not write examinations or papers and do not participate in class discussions unless otherwise directed by the course instructor. They do not appear on the instructor's class roll and may not request grades. The Registrar's Office will not accept final grades for auditors.

Students officially registered for other courses during a semester or summer session may audit a course without paying a fee. Those not officially registered must pay a $10.00 fee to the University Cashier and must file a copy of the receipt with the course instructor at the beginning of the term.

Changes in Fall and Spring Semester Schedules

Course Schedule Changes before the End of the Sixth Week of Classes

Insofar as possible, changes in course registration schedules should be made during the first five days of instruction. During this time, students may add courses using telephone registration if prior approval for registration in these courses was granted by their academic advisor.

After the first five days of classes, the addition of a course to a student's registration schedule requires the permission of the course instructor or the department concerned. Additionally, students must obtain a Registration/Drop/Add Form from a department or their school. Once the form is completed and the appropriate signatures have been obtained, the form must be submitted to the Registrar's Office (Hanes Hall) on the day of issuance. The addition of a course after the second week of classes is not recommended or normally possible unless the student has been attending the class.

During the first two weeks of classes, students may drop a course using telephone registration; however, they are responsible for insuring that any registration schedule changes do not result in less than a twelve-academic hour semester registration (one-hour Physical Education Activity (PHYA) courses are not counted as academic hours). After the second and before the end of the sixth week of classes, students may drop courses only with the approval of their academic adviser or dean. If permission is granted, the academic adviser or dean will complete a Registration/Drop/Add
Form that must be submitted by the student to the Registrar's Office (Hanes Hall) on the day of issuance. After the sixth week of classes, students must petition to drop courses through the dean's office of the school in which they are enrolled.

Course Schedule Changes after the Sixth Week of Classes

If a student drops the only course he or she is taking, this constitutes a withdrawal from the University (see section titled "Withdrawal" for information). A student is not officially dropped from a course (or added to a course) unless the aforementioned procedures are completed. The notation of W (withdrawn without penalty) is not employed for course drops made before the end of the sixth week of classes.

Other Procedures

Students enrolled in a professional school should become acquainted with the specific procedures used for making official changes in their course registration schedules. General College and College of Arts and Sciences students must use the following procedures after the first five days of classes:

Students admitted to the General College as freshmen or sophomore transfers are required to maintain continuous enrollment in English 11 and 12 (English 10, 11, and 12, if applicable) until they have completed their Basic Skills English requirement. Any change in a student’s registration schedule involving the dropping of English 10, 11, or 12, at any time during the semester, must be approved by a General College dean.

To drop a course after the sixth week of classes, students must complete and submit a petition form to the Appeals Committee of their college or school. In the General College and the College of Arts and Sciences, these committees meet weekly to approve or deny requests from students after examining the evidence presented in each petition. Reasons for requesting a course drop after the sixth week of classes are serious illness, personal or family problems, financial problems requiring employment, or other serious problems that prevent students from meeting their academic responsibilities. Students must first discuss their reasons for requesting a course drop with their adviser (Steele Building).

The adviser provides the student with a standard form that requires statements from the student, the course instructor, and any pertinent documentation (statements from employers, physicians, etc.). The completed form must be submitted by the student to the appropriate person in the General College or College of Arts and Sciences as designated by the adviser. Submission of a petition does not assure that the request will be granted; therefore, students must continue to attend classes until informed of the committee’s decision. Students are also responsible for contacting the person to whom the petition was submitted within seven days after the committee meeting.

If a course drop is approved, the student must process a Registration/Drop/Add Form through the Registrar’s Office. All drops approved by the committees appear with the notation of W (withdrawn without penalty) unless an exception is made. If a petition is denied, the student may submit a second petition with additional supporting evidence. The decision of the appeals committee considering a petition is final.

Students enrolled in professional schools should acquaint themselves with the appropriate appeals procedures.

Any student who ceases to attend a class without officially being dropped receives a temporary grade of AB or IN. A temporary grade of AB is computed as an F grade and is converted to a permanent F grade at the end of the next regularly scheduled semester (fall or spring) after the AB grade is awarded. A temporary grade of IN is computed as an F grade and is converted to a permanent F grade at the end of the first eight weeks of the next regularly scheduled semester (fall or spring) after the IN grade is awarded. An instructor may also report a grade of FA, which is computed as a permanent F grade upon assignment. A grade of F may be assigned instead of a temporary grade or an FA grade where a final examination is not required in the course. The conditions that apply to the assignment of temporary grades are described under Grading System.

Policies and Guidelines for a Cooperative Learning Environment

Teaching and learning occur simultaneously through a partnership between instructor and student. Instructors share knowledge, experience, and ideas with their students. Students process these thoughts, generate new ones, and share them with their teachers. In most cases, students and instructors communicate clearly and effectively. However, misunderstanding does occur. In an attempt to foster a positive academic environment, the Faculty Council, upon recommendation of the Educational Policy Committee, establishes these policies and guidelines.

The Faculty Council resolves:

Part I. Policies

Section 1. The Faculty Council recognizes and affirms the following policies. This recognition is not to be interpreted as precluding modification of any policy by the appropriate authority.

The Honor Code. The faculty should inform students of the provisions of the honor code, and be aware of their own responsibilities specified in the honor code. Faculty responsibilities are stated in the Instrument of Student Judicial Governance.

Student Grievance Procedures. According to UNC-CH Student Grievance Committee procedures, students may file a grievance against a UNC-CH employee, EPA non-faculty employee, staff employee, or student employee (when acting in the role of employee), when there is a violation of one of...
the following:
A. the UNC-CH Sexual Harassment Policy;
B. the UNC-CH Racial Harassment Policy;
C. the UNC-CH Policy on Sexual Orientation;
D. the Americans with Disabilities Act;
E. title IX, which prohibits exclusion from participation on
   the basis of sex;
F. section 504 of the Rehabilitation Act of 1973, which
   outlaws discrimination on the basis of a handicap;
G. the Family Educational Rights and Privacy Act,
   which allows students to challenge the content of their
   educational records.

Copies of these can be obtained from the Dean of
Students' office. They contain information about how to file
a grievance. A grievance based on incidents that occurred
more than six months before the complaint was filed will not
be considered.

**Student Access to Academic Records; Protection Against
Improper Disclosure.** As stated in The Family Educational
Rights and Privacy Act of 1974, students may have access to
their full academic records. Individuals who are, or have
been, in attendance at UNC-CH, may inspect and review
their education records. Otherwise, education records are
subject to confidentiality requirements as specified by law
and may not be disclosed improperly. Requests for recom-
mandations imply that the student has given consent to the
disclosure of information related to ability and performance.
Judgments of ability and character may be provided under
appropriate circumstances, normally with the knowledge or
consent of the student. "Education records" are those records
directly related to a student that are maintained by an educa-
tional institution. Particular University policy provisions
are found in The University of North Carolina at Chapel
Hill's Policies and Procedures under the Family Educational

**Appealing a Grade.** The University has systems for
appealing a grade. The exact procedures vary among the
academic units. Students should consult with their dean or
department chairperson to obtain information about grade
appeal procedures.

**Part II. Guidelines**

**Section 2.** The Faculty Council endorses the following
guidelines for the faculty-student relationship. This endor-
sement will not be construed as faculty legislation, is not
intended to establish a contractual undertaking by the
University or any individual, and shall not constitute the
basis for civil action in a court or a claim in any administra-
tive or judicial body of The University of North Carolina at
Chapel Hill.

**Clear Definition of Potential Honor Code Violations.** In
an attempt to avoid unintended misunderstanding, instruc-
tors should clearly state what is acceptable in their class.
When study aids such as computers are allowed, the instruc-
tor is responsible for explaining what constitutes proper use
of these items. These rules should be established at the
beginning of the course and should not be changed without
giving students proper notice.

**Assignment of Graded Work During the Last Week of the
Semester.** Instructors may not assign graded work during
the last week of classes unless the course syllabus clearly
states that such an assignment will be given.

**Suggested Classroom Procedures.** In general, instructors
are strongly encouraged to follow the guidelines for course
design and classroom procedures recommended by the
Center for Teaching and Learning. When students enter into
a learning relationship, they have certain needs and expecta-
tions. They are entitled to information about course proce-
dures, content, and goals. Instructors should provide a
syllabus, describing the course, and methods of evaluation.
Particular attention should be paid to several areas of special
concern to students, including provision of reserve readings,
and grading policy.

Evaluated assignments should be returned to the stu-
dents within a reasonable amount of time. Since part of the
purpose of such assignments is to provide feedback, stu-
dents should be given time to assess, and to learn from their
mistakes. Ideally, such assessment would take place while
the relevant topics are still fresh in their minds.

Extra credit, if offered, should be announced publicly and
in advance, to the entire class.

**Students Should Have Freedom of Expression.** Students
should be free to take reasoned exception to the data or
views offered in any course of study. However, they are
responsible for learning the content of any course of study
for which they are enrolled. Instructors may assign a grade
based on incorrect facts or poorly supported arguments or
opinions. Nothing therein shall be construed to limit the free-
dom of the faculty to assign grades according to appropriate
academic standards.

**Responsibilities of Students and Teachers.** Just as stu-
dents ought to expect instructors who are knowledgeable
and well prepared, so should teachers expect their students
to be motivated, eager to learn, and actively engaged in
class. It is the responsibility of teachers to make their courses
serious intellectual experiences for themselves and for their
students. It is the responsibility of students to take seriously
the courses in which they enroll. Good teachers need good
learners.

Students should understand that they are members of a
community of scholars, and membership in such a commu-
nity is not a passive event. In order to be full participants in
the educational community, and to maximize the educa-
tional value of a class, pre-class preparation is necessary.

Proper class preparation involves obtaining course mate-
rials as they are needed, and completing assignments as they
are due. Full participation in a class requires regular atten-
dance, arriving on time and remaining until class conclusion,
and active involvement in the work of the class. Students
should also consider the extent of their own involvement in
a class in assessing the educational value of a class.
Class Attendance

The following legislation by the Faculty Council gives each instructor the authority to prescribe attendance regulations for his or her classes: "Regular class attendance is a student obligation, and a student is responsible for all the work, including tests and written work, of all class meetings. No right or privilege exists that permits a student to be absent from any given number of class meetings."

Instructors will keep attendance records in all cases. If a student misses three consecutive class meetings, or misses more classes than the instructor deems advisable, the instructor will report the facts to the student's academic dean for appropriate action.

The appearance of a student’s name on the Infirmary List constitutes an excuse for the student for absences from classes during the period the student is in the infirmary. This list is circulated to all deans of colleges and schools having undergraduate students. In case of doubt the instructor may check with the office of the student’s dean.

Students who are members of regularly organized and authorized University activities and who may be out of town taking part in some scheduled event are to be excused during the approved period of absence. Notification of such an absence must be sent by the responsible University official to the office of the student’s dean where instructors may, should they be in doubt, consult the list.

Absences from class for valid reasons are excused only by the instructors. A student should present his or her explanation for any absences to the instructor at the next meeting of the class.

The University calendar does not recognize religious holidays. The faculty are encouraged to make reasonable accommodations for students requesting to miss class due to the observance of religious holidays.

Final Examinations

Final assessments are required in all undergraduate courses. (Any exceptions to this rule are based on the special types of work done in the course and must have the advance approval of the provost.) As a general rule, a final assessment must be a written examination administered at a designated location at a predetermined time as specified in the general final examination schedule.

The head of the instructional unit in which a course is based may give permission for faculty to use for that course an alternative form of final assessment, such as a portfolio of a semester's work or a take-home examination. Faculty employing an alternative form of final assessment must adhere to the general final examination schedule, must allow adequate time for completion, and should bear in mind that the students have other scheduled examinations. Annual reports of alternative forms of final assessments authorized pursuant to this paragraph shall be forwarded to the deans of the instructional units in which the courses are based. Undergraduate Courses taught on campus must include a final assessment (i.e. final examination) unless an exception is granted by the provost. A traditional final examination is written, is administered at a predetermined time as specified in the final examination schedule, and takes place at a designated location. Exceptions to the scheduled time and location of a traditional examination can be granted only by the provost.

Department chairs (i.e. heads of instructional units) must give permission for faculty to use nontraditional examinations, such as a portfolio of a semester’s work or a take-home examination. The chair should submit to the appropriate dean an annual summary of the exceptions that were granted. For multi-disciplinary and co-taught courses, permission to give a nontraditional examination must be granted solely by the chair of the instructional unit in which the course is based.

No examination (except for laboratory sections) may be held at a time other than that specified in the general schedule except with the advance approval of the Provost. No examination time can be changed after it has been announced. No special preparation quizzes may be given during the last five days of classes before the beginning of the final examination period. No examination may be held later than 7:00 p.m. Final examinations for a full course should ordinarily cover two hours but should not exceed a period of three hours. Only examinations requiring an exceptional portion of practical work should be longer than three hours.

No special preparation quizzes may be given during the last five days of classes (last two days of classes for Summer School) before the beginning of the final examination period. No examination (except for laboratory sections) may be held at a time other than that specified in the general schedule except with the advance approval of the provost. No examination may start later than 7:00 PM. Final examinations for a full course should ordinarily cover a minimum of two hours and should not exceed a period of three hours. Only examinations requiring an exceptional portion of practical work should be longer than three hours.

All regular final examinations must be held in Chapel Hill. In exceptional cases a student may apply to his or her dean for permission to take examinations in absentia. (A fee of $10.00 is charged for each examination so taken.)

Students who are absent from an examination receive a course grade of Absent (AB), which is equivalent to F. When students are unable, for reasons clearly beyond their control, to take a final examination at the scheduled time, they can be excused only by the Student Health Service or their academic dean.

A student who has three final examinations scheduled by the Registrar’s Office within a twenty-four hour period may petition his or her dean for permission to have one of the scheduled examinations rescheduled. In the event that one of the scheduled examinations is a common final examination for a multiple-section course, that examination is the one to be rescheduled.
In all cases in which an examination is to be rescheduled, the instructor may reschedule that examination during the final examination period, but not later than the end of the following semester. Any petition for a change in the examination schedule because of this rule must be made before the first day of the final examinations. The final examination in any course may be taken only by regularly enrolled members of the class whose registration has been certified and by students certified to be eligible to take a special examination in that course. The certifying authority is the Registrar’s Office.

Each student is required to sign a full and explicit pledge certifying that he or she has neither given nor received aid during the examination.

**Credit by Examination**

Enrolled students who have gained through independent study or experience knowledge of the content of courses offered by the University for undergraduate credit may, with the approval of the department and school or college involved, receive credit (without grade) for such courses by special examination. Such an examination must be taken before the beginning of the last semester or full summer session before graduation, and the approval of the department and school must be received at least thirty days before the examination is taken.

**Academic Course Load**

**Fall and Spring Semesters**

To meet the minimum graduation requirement of 120 academic hours in eight semesters, students should average fifteen hours each semester, exclusive of physical education activity courses. For freshmen, however, physical education activity courses, four-hour foreign language and four-hour laboratory science courses often account for course loads of sixteen to eighteen hours. Other students may not enroll in more than seventeen academic hours unless they have earned a 3.0 grade point average in the preceding regular semester and have a cumulative 2.5 grade point average. Exceptions require the approval of the student's dean. Seniors meeting graduation requirements during their final semester in residence may enroll in twenty academic hours if they have a cumulative and preceding semester grade point average of 2.0.

The minimum course load for a single semester is twelve academic hours (one-hour physical education activities do not count as academic hours). Students may not go below the twelve academic hour minimum without permission of their dean. All students should discuss semester enrollment of fewer than fifteen academic hours with their adviser because such enrollments necessitate (1) summer school, (2) independent study course work, or (3) a heavier course load during a later semester.

**Summer Sessions**

Two three-semester hour courses constitute the normal academic load for one summer session. Students with a 2.0 cumulative grade point average may enroll in a maximum of nine hours during a summer session with the approval of their adviser or dean.

**Twenty-Five Percent Tuition Surcharge**

Beginning in fall 1994, new undergraduate students seeking a baccalaureate degree at UNC-Chapel Hill will be subject to a 25 percent tuition surcharge as required by Section 89 (b), Senate Bill 27, of the 1993 Session laws.

**Counted Credit Hours**

The undergraduate credit hours to be counted for this requirement include: 1) all regular session degree-creditable courses taken at UNC-Chapel Hill including repeated courses, failed courses, and those dropped after the end of the second week of class; and 2) all transfer credit hours accepted by UNC-Chapel Hill. However, the following credit hours shall be excluded from the calculation: (1) those earned through the College Board’s Advanced Placement (AP) and College Level Examination Program (CLEP) or similar programs; (2) those earned through institutional advanced placement, course validation, or any similar procedure for awarding course credit, and (3) those earned through the summer session or degree-credit extension division on your campus or at another UNC institution.

**Students Subject to the Surcharge**

The surcharge should be imposed on all counted credit hours in excess of the threshold defined below for each of the following three categories of undergraduates:

For students earning a first baccalaureate degree in a program that requires no more than 128 credit hours, the surcharge shall be applied to all counted credit hours in excess of 140.

For students earning a first baccalaureate degree in a board-approved program that requires more than 128 counted credit hours, the surcharge shall be applied to all credit hours that exceed 110 percent of the credit hours required for the degree. Such programs include those that have been officially designated by the Board of Governors as five-year programs, as well as those involving double majors, or combined bachelor’s/master’s degrees.

For students earning a baccalaureate degree other than their first, the surcharge shall be applied to all counted credit hours that exceed 110 percent of the minimum additional credit hours needed to earn the additional baccalaureate degree.

**Grading System**

**Permanent Letter Grades**

A letter grade and plus-minus system for evaluating academic performance is employed for all undergraduates. Each letter grade receives a numerical value (quality points) for the
purpose of determining a student’s grade point average for a semester’s work and for averaging grades for all semesters’ work to find a student’s cumulative grade point average.

The letter grades and the quality points represented by each (as of August 24, 1978) are as follows:

\[
\begin{align*}
A &= 4.0 \\
B+ &= 3.3 \\
C+ &= 2.3 \\
D+ &= 1.3 \\
F &= 0.0 \\
A- &= 3.7 \\
B- &= 3.0 \\
C &= 2.0 \\
D &= 1.0 \\
B+ &= 2.7 \\
C- &= 1.7
\end{align*}
\]

To determine the grade point average for a semester’s work, multiply the number of semester hours assigned to each course by the number of quality points received, add the quality points received for all courses, and divide by the number of semester hours attempted.

**EXAMPLE: Fall Semester Course Registration**

<table>
<thead>
<tr>
<th>Course</th>
<th>Grade</th>
<th>Hours</th>
<th>Quality Points</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>4.0</td>
<td>3</td>
<td>12</td>
</tr>
<tr>
<td>B+</td>
<td>3.3</td>
<td>3</td>
<td>9.9</td>
</tr>
<tr>
<td>C</td>
<td>2.0</td>
<td>4</td>
<td>8.0</td>
</tr>
<tr>
<td>D-</td>
<td>1.7</td>
<td>3</td>
<td>5.1</td>
</tr>
<tr>
<td>A-</td>
<td>3.5</td>
<td>1</td>
<td>3.5</td>
</tr>
<tr>
<td>F</td>
<td>0.0</td>
<td>3</td>
<td>0.0</td>
</tr>
<tr>
<td>A</td>
<td>4.0</td>
<td>1</td>
<td>4.0</td>
</tr>
</tbody>
</table>

Total Semester Hours = 18 Total Quality Points Earned = 39.8
The Fall Semester Grade Point Average = 39.8 / 18 = 2.211

Grades earned and semester hours attempted at other institutions are not included in the calculation of the University grade point average. Plus-minus grades earned prior to the 1978 fall semester are not assigned a particular numerical quality point value; the value of the basic letter grade A, B, C, or D alone is used in computing a grade point average. Records of progress are kept by this institution on all students.

Students have four methods to gain access to term grades: (1) telephonically by calling 1-800-473-6112 (grades are reported within 24 to 48 hours after instructors submit them to the University Registrar and are available until approximately one week before the end of classes of the next succeeding term), (2) using a personal data browser on the World Wide Web at: http://www.unc.edu, (3) a written request for printed grades (submitted after the first day of classes but before the last day of classes) each enrolled term and sent to: Office of the University Registrar, CB# 2100 105 Hanes Hall, UNC-CH, Chapel Hill, NC 27599-2100. The request should include the following information: student’s full name, person identification number, term for which grades should be mailed, and college/school in which the student is enrolled, or (4) in person at the Registrar’s Office, 105 Hanes Hall. Call the Office of the University Registrar at (919) 962-0495 if you have questions about the grade reporting services.

**Temporary Grades (IN and AB)**

Students who do not complete all requirements in a course by the end of the semester receive a temporary grade of IN or AB in place of a permanent letter grade. Grades of IN and AB carry the force of an F grade (zero quality points) and are used in the computation of a semester and cumulative quality point average. Students who do not complete the course requirements within a specified period of time are assigned permanent F grades on their academic transcripts by the Registrar’s Office.

A: The grade of AB must be reported by the instructor for any student who did not take the final examination and who, by taking the final examination, could pass the course. This AB grade translates to an F in computing the student’s cumulative and semester grade point average, and later converts to an F unless the student arranges to take the final examination before the close of the next scheduled semester (fall or spring) after receiving the grade. If the student cannot pass the course regardless of a final examination performance, the grade FA must be reported by the instructor.

When submitting an AB, an instructor must enter the grade on the Instructor’s Grade Report and must also complete a Temporary Grade Assignment form (supplied by the Registrar’s Office). The purpose of this form is to establish a record of what arrangements, if any, have been made between student and instructor to clear the AB. Absence from a final examination may be officially excused only by the student’s dean or the University Student Health Service. An absence may be excused for significant physical or emotional illness, or for serious personal or family problems.

**Student Health Service.** Students who are inpatients in the Infirmary during the time of their final examination(s) will have their names entered on the "Infirmary List" in some cases, outpatient treatment will also result in their names being entered on the Infirmary List. Students on the Infirmary List should obtain an "Official Permit" from the Registrar’s Office before contacting their instructor about arrangements to take the final examination. If students are treated at the Infirmary but do not appear on the Infirmary List, they should see the dean of their college as soon as possible.

**Academic Dean.** If students know in advance that they must miss (a) final examination(s) because of illness or other serious problems, they should see the dean of the school in which they are enrolled before the final examination(s) is given. If this is not possible, they should see their dean as soon after the fact as possible.

Assuming a student did not take a final examination(s) for one of the reasons previously cited, the dean will issue an official “Examination Excuse” which the student must present to the course instructor when arrangements are made for a suitable time to take the final examination. Documentation of a student’s illness or problems may be required by the dean.

If a student presents an “Examination Excuse” or an “Official Permit” to an instructor or the instructor’s departmental chair or dean, then a final examination must be given to the student.

B: The grade IN may only be assigned by an instructor to a student who took the final examination in a course but did
not complete some other course requirement such as signing the honor pledge and who, by virtue of completing that missing work, might pass the course. An IN translates to an F in computing a student's cumulative and semester grade point average. Unless removed within eight weeks of the beginning of the regularly scheduled semester (fall or spring) following its assignment, an IN converts to an IN/F*.

When submitting an IN, an instructor must enter the grade on the Instructor's Grade Report and must also complete a Temporary Grade Assignment form supplied by the Registrar's Office. The purpose of this form is to establish a record of what arrangements, if any, have been made between student and instructor to clear the IN.

C. Important Rules and Procedures Pertaining to AB and IN Grades. The decision to report an IN grade is solely the responsibility of the course instructor; however, a student may present proper justification for the instructor's consideration.

Temporary grades should be cleared by completion of the work outstanding, preferably no later than the start of the following semester. The deadline for clearing a temporary grade of AB is the end of the next regularly scheduled semester (fall or spring) after the AB grade is awarded. A temporary grade of IN must be cleared within the first eight weeks of the regularly scheduled semester (fall or spring) after the IN grade is awarded.

If students intend to remove IN or excused AB grades, they should not officially enroll in the course(s) during the next semester or summer session. If recommended by the course instructor, a student may attend a part of that instructor's section of the course or another instructor's section of the same course in which the temporary grade was awarded.

If a student enrolls in a course in which a temporary grade has been previously received, the second enrollment is taken as evidence that the student could not or is not permitted to remove the temporary grade. This results in the replacement of the temporary grade by F* after the deadline for removing the temporary grade. The grade earned during the second enrollment is also reported on the student's academic transcript and is used along with the F* grade in the computation of a cumulative grade point average.

Other Grades and Notations

A grade of PS (Pass) indicates a passing grade in a course taken "pass/fail." The rules governing the use of "pass/fail" are presented later in this section.

A notation of W (Withdrawn Passing) is entered in the grade column of students' academic transcripts if they are permitted to drop a course after the sixth week of classes. This notation is automatically entered unless the student's academic dean specifies otherwise. The symbol W is not employed in Summer School.

A notation of PL (Placement) is entered in the grade column of students' academic transcripts if they are awarded credit for a course as a result of evaluation by the depart-
than once for credit and are so designated under individual department course descriptions in the Undergraduate Bulletin. A particular Physical Education Activity (PHYA) course may be taken repeatedly. However, a different level of the same course (elementary, intermediate (Y), and advanced (Z)) must be taken during each separate enrollment.

Grades Earned at Other Institutions

Grades earned and semester hours attempted at other institutions are not included in the computation of a grade point average at the University and may not be used to restore academic eligibility at the University.

Grade Protests

If students wish to protest a course grade, they must first attempt to resolve any disagreement with the course instructor. (An instructor may change a permanent grade only when a clerical or arithmetical error is involved.) If they fail to reach a satisfactory resolution, they may appeal the grade in accordance with the following procedures. They may submit a written appeal with any relevant test papers, term papers, etc., to their academic dean not later than the last day of classes of the next succeeding semester.

The dean will refer their appeals to the administrative board of his/her school and the chair of the department concerned. The department chair will appoint a committee to consider the appeal and will make a recommendation to the administrative board based on the committee’s findings. The decision of the administrative board in such cases is final.

Pass/D+/D/Fail Option

The pass/D+/D/fail option provides students an opportunity to enroll in an additional course (beyond the usual five-academic course load) or to reduce their concerns about competing with prospective majors in a course in which they have considerable interest.

Students who declare a course on the pass/D+/D/fail option will receive the grade of PS (pass) when a letter grade of A through C- is recorded on the official grade roll, a D+ or D when a letter grade of D+ or D is recorded on the grade roll, or F when the course is failed. For the purpose of computing a grade-point average, a PS grade does not count as hours attempted; therefore, a PS grade does not affect a student’s average. Grades of D+, D, or F under the pass/D+/D/fail option count as hours attempted and are treated as D+, D, and F grades earned in any other course.

Course content and requirements are the same for pass/D+/D/fail registrants as for regular registrants. The minimum performance for a PS grade is equivalent to the minimum performance for the letter grade of C-.

Regulations Governing the Pass/D+/D/fail Option

The following regulations govern the use of the pass/D+/D/fail option:

A. Students must take at least nine academic hours for regular letter-grade credit in the semester in which other hours are declared PS/D+/D/F.

B. No more than four credit hours (e.g., one academic course and a physical education activity course) may be taken on the PS/D+/D/F grading system during a single semester.

C. A maximum of eleven hours of PS/D+/D/F credit may be taken in a student’s undergraduate career.

D. Not to be counted in the limits specified in B and C above are up to seven hours taken in courses for which ONLY PS or F grades are assigned.

E. The following may not be declared PS/D+/D/F:

1. courses used to satisfy General College or Arts and Sciences perspective requirements or General College basic skills (math, English, or foreign language);

2. courses in one’s major or minor department (or crosslisted with those departments), even if used as an elective;¹

3. courses specifically required by the major or minor;²

4. Summer School courses;

5. Carolina Courses Online

6. an Honors course or Honors section of a course.

F. Physical Education activity courses MAY be taken PS/D+/D/F even if used to satisfy a graduation requirement.

¹ Students who change their major may count in the new major one course previously completed with the grade PS.
² One exception: Students pursuing a B.S. degree in one of the natural sciences may declare a foreign language course pass/D/fail if that course is not used to satisfy the minimum General College skills requirement (e.g., level 4 for students who did not place into level 4).

Pass/D+/D/fail Declaration Procedure

To declare a course on the PS/D+/D/F grading system students must complete the Pass/Fail Course Registration form. It is obtained from their academic adviser or dean’s office (General College students must see their adviser in Steele Building). Students should always discuss the advisability of taking a course on the PS/D+/D/F grading system with their adviser before committing themselves to a formal declaration.

The period for making PS/D+/D/F declarations begins on the fifth day of classes of each semester and concludes at the end of the sixth week of classes. Forms submitted after the sixth week of classes are not accepted, and PS/D+/D/F declarations, once submitted, cannot be changed.
Academic Eligibility

The University expects all students to study and perform to the best of their abilities. The eligibility standards listed below do not suggest acceptable academic performance, but rather minimum levels. Students failing to meet these standards are not making good use of their educational opportunities.

The standards indicated below are stated in terms of "good standing" (cumulative grade point average) and "satisfactory progress toward graduation" (cumulative academic semester hours passed).

Cumulative Academic Eligibility Standards
A student who enters the University after May 15, 1982 must meet the following minimum requirements:

A. a 1.50 cumulative grade point average and 24 academic semester hours (cumulative) to begin the third semester in residence;
B. a 1.75 cumulative grade point average and 51 academic semester hours (cumulative) to begin the fifth semester in residence;
C. a 1.90 cumulative grade point average and 78 academic semester hours (cumulative) to begin the seventh semester in residence;
D. a 2.00 cumulative grade point average and 105 academic semester hours (cumulative) to begin the ninth semester in residence;
E. a required physical education activities courses (PHYA) do not count as academic semester hours.

Exceptions
To be eligible to remain in the University, a student who first entered the University after May 15, 1974 but before May 15, 1982 must meet the following grade point average requirements:

A. a 1.50 GPA to begin the third semester of college work;
B. a 1.75 GPA to begin the fifth semester of college work;
C. a 1.90 GPA to begin the seventh or later semester of college work (to be checked after the eighth).

Transfer students admitted to the University after May 15, 1983 will have their number of transfer semesters in residence and their academic eligibility determined according to the standards approved by the Faculty Council on March 18, 1983. However, transfer students admitted to the 1983 fall semester with three or more semesters in residence at another institution or the 1984 spring semester with four or more semesters in residence at another institution may follow the rules governing determination of semester in residence and academic eligibility in effect before May 15, 1983. These students should consult the Office of Undergraduate Admissions and the dean of their college or school.

Under exceptionally extenuating circumstances beyond the control of the student and upon the recommendation of the student’s dean, an appeal from the foregoing eligibility requirements may be considered by the appropriate appeals committee. The committee’s decision is final.

Minimum Eligibility Standard for Any Semester
Students who do not earn at least a 1.00 grade point average and pass at least nine academic hours in any semester will be declared “Academic Review” and will be reviewed by the dean or appeals committee of the schools or colleges in which the students are enrolled to determine their academic eligibility.

Academic Warning Notification
An academic warning will be issued to students who are not making acceptable academic progress at the end of the first, third, fifth, and seventh semesters in residence. The

notation ACADEMIC WARNING will appear on the student’s grade slip, but will carry no academic penalty and will not be entered on the transcript or any other permanent record.

Students will receive an academic warning if after:
A. the first semester in residence they have not earned at least a 1.50 cumulative grade point average and passed 12 academic semester hours (cumulative) of course work;
B. the third semester in residence they have not earned at least a 1.75 cumulative grade point average and passed 36 academic semester hours (cumulative) of course work;
C. the fifth semester in residence they have not earned at least a 1.90 cumulative grade point average and passed 63 academic semester hours (cumulative) of course work;
D. the seventh semester in residence they have not earned at least a 2.00 cumulative grade point average and passed 90 academic semester hours (cumulative) of course work.

Exceptions
To be eligible to remain in the University, a student who first entered the University after May 15, 1974 but before May 15, 1982 must meet the following grade point average requirements:

A. a 1.50 GPA to begin the third semester of college work;
B. a 1.75 GPA to begin the fifth semester of college work;
C. a 1.90 GPA to begin the seventh or later semester of college work (to be checked after the eighth).

Transfer students admitted to the University after May 15, 1983 will have their number of transfer semesters in residence and their academic eligibility determined according to the standards approved by the Faculty Council on March 18, 1983. However, transfer students admitted to the 1983 fall semester with three or more semesters in residence at another institution or the 1984 spring semester with four or more semesters in residence at another institution may follow the rules governing determination of semester in residence and academic eligibility in effect before May 15, 1983. These students should consult the Office of Undergraduate Admissions and the dean of their college or school.

Under exceptionally extenuating circumstances beyond the control of the student and upon the recommendation of the student’s dean, an appeal from the foregoing eligibility requirements may be considered by the appropriate appeals committee. The committee’s decision is final.
Academic Eligibility Standards for Transfer Students

(Approved by the Faculty Council on March 18, 1983)

Semesters in Residence Based on Credit Hours Transferred

Several academic procedures, including determination of academic eligibility, depend on semesters in residence. UNC-Chapel Hill accepts for academic credit some work completed at other colleges, including the University's Office of Continuing Studies. In determining student's semesters in residence, the following formula should be applied to academic semester hours (1 quarter hour = 2/3 semester hour) accepted by UNC-Chapel Hill from another college or from Continuing Studies:

A. less than 12 semester hours transferred = 0 semesters in residence; at least 12 but less than 24 semester hours transferred = 1 semester in residence;
B. at least 24 but less than 36 semester hours transferred = 2 semesters in residence;
C. at least 36 but less than 51 semester hours transferred = 3 semesters in residence;
D. at least 51 but less than 66 semester hours transferred = 4 semesters in residence;
E. The student's dean should make the determination of semesters in residence for a student who is eligible to transfer at least 66 semester hours from another college or from Continuing Studies.

Academic Eligibility Standards for Transfers from Continuing Studies

Students who transfer to UNC-Chapel Hill from the University's Office of Continuing Studies must meet the same standards that apply to students who enroll as first-semester freshmen at UNC-Chapel Hill in a fall semester. These standards govern cumulative academic eligibility, minimum academic eligibility for one semester, and notification of academic warning. However, in applying the standards to Continuing Studies transfers, the above formula should be used to determine semesters in residence (UNC-Chapel Hill semesters + Continuing Studies semesters transferred).

Academic Eligibility Standards for Other Transfer Students

The minimum eligibility standard for one semester applies to all students, including students who transfer from another college.

Students who transfer to UNC-Chapel Hill from another college will receive the notation ACADEMIC WARNING on their grade slips at the end of their first semester in residence in Chapel Hill unless they pass 12 academic hours (required physical education activities courses are not included) with a UNC-Chapel Hill grade point average at least as high as:

A. 1.50 if 1 semester in residence has been transferred to UNC-Chapel Hill;
B. 1.75 if 2 semesters in residence have been transferred to UNC-Chapel Hill;
C. 1.75 if 3 semesters in residence have been transferred to UNC-Chapel Hill;
D. 1.90 if 4 semesters in residence have been transferred to UNC-Chapel Hill;
E. 1.90 if 5 semesters in residence have been transferred to UNC-Chapel Hill;
F. 2.00 if 6 or more semesters in residence have been transferred to UNC-Chapel Hill.

Students who transfer to UNC-Chapel Hill from another college will be declared academically ineligible to begin a third semester of study in Chapel Hill unless they have passed 24 academic hours of UNC-Chapel Hill work (required physical education activities courses are not included) with a UNC-Chapel Hill GPA at least as high as:

A. 1.50 if 1 semester in residence has been transferred to UNC-Chapel Hill;
B. 1.75 if 2 semesters in residence have been transferred to UNC-Chapel Hill;
C. 1.75 if 3 semesters in residence have been transferred to UNC-Chapel Hill;
D. 1.90 if 4 semesters in residence have been transferred to UNC-Chapel Hill;
E. 1.90 if 5 semesters in residence have been transferred to UNC-Chapel Hill;
F. 2.00 if 6 or more semesters in residence have been transferred to UNC-Chapel Hill.

Transfer students who remain academically eligible to begin a third semester in residence in Chapel Hill must thereafter meet the same standards which apply to students who enrolled at UNC-Chapel Hill as first-semester freshmen in a fall semester. These standards govern cumulative academic eligibility, minimum eligibility for one semester, and issuance of academic warning. However, in applying these standards, semesters in residence should be interpreted as total semesters in residence (UNC-Chapel Hill semesters + transferred semesters) and GPA should be interpreted as cumulative UNC-Chapel Hill GPA.

Junior transfer students are required to pass nine credit hours and achieve a 1.50 GPA in their first semester to maintain academic eligibility, beginning with the fall 1999 semester.

Restoration of Academic Eligibility

The University reviews academic eligibility after students complete their second, fourth, sixth, and eighth semesters, and every semester after the eighth except in certain readmission cases. In some cases, academic review may be initiated at the end of the odd semester in residence.

Ineligibility is determined before students begin their third, fifth, and seventh semesters, before every semester
after the eighth, and, in the special review cases, before the beginning of each even semester in residence. Students who may be ineligible to return (fall and spring) will receive notification from their academic dean at their home address a few days after the final examination period.

Students failing to meet (1) the minimum cumulative grade point average and (2) the minimum academic semester hours passed (the latter requirement applies only to students admitted after May 15, 1982) may attempt to retain or restore their academic eligibility by:

A. taking courses in the Summer School at UNC-Chapel Hill;
B. taking courses through the Independent Studies program (correspondence) at UNC-Chapel Hill;
C. taking courses through the Carolina Courses Online (Internet courses) program at UNC-Chapel Hill;
D. removing excused AB or IN grades.

Students satisfying the minimum cumulative grade point requirement, but failing to satisfy the requirement for cumulative semester hours passed, may use one or more of the above procedures in attempting to retain or restore academic eligibility. To satisfy the requirement for cumulative hours passed, students also may use semester hours of approved transfer credit (grade of C or higher) from another institution. Students wishing to use transfer credit for this purpose should obtain approval from the Admissions Office and their academic dean or adviser before enrolling in these courses.

Independent Studies Courses

Students planning to restore academic eligibility through completion of one or more correspondence courses should be familiar with the following rules and recommendations that apply to time limits and course selection:

A. Students may enroll and begin work at any time during the year. They may be enrolled in a maximum of two courses at any one time. An Independent Studies course enrollment expires nine months from the date of enrollment.
B. Students should allow at least three months for the completion of an Independent Studies course. The following policies govern the minimum time within which correspondence courses may be completed:
   1. The minimum time for completing an Independent Studies course is twelve weeks from the receipt of the first assignment.
   2. Students may not submit more than one-fifth of the total number of assignments in the course at one time.
   3. Students may not submit assignments more often than once every two weeks unless all assignments previously submitted have been graded and returned by the instructor.
   4. Examinations taken on the UNC-Chapel Hill campus must be scheduled at least one week prior to the examination date, and those to be taken elsewhere must be scheduled at least three weeks prior to the examination date.
   5. Examinations may not be scheduled unless four-fifths of the assignments have been submitted and have been graded and returned by the instructor.
   6. Examinations may not be taken until all assignments have been submitted.
   C. Only grades earned in Independent Studies courses labeled UNC-Chapel Hill can be considered for restoration of academic eligibility. In order to avoid problems, students should clear their course selection(s) with their adviser or dean before enrolling in Independent Studies.
D. The following policies apply to students seeking restoration of academic eligibility in the General College or in the College of Arts and Sciences, effective January 1, 1984.
   1. The College of Arts and Sciences and the General College will count toward restoration of undergraduate academic eligibility for a given semester only the Independent Studies courses for which a final course grade has been recorded in the Division of Continuing Education by the last day of the official registration period of that semester.
   2. No professional school courses offered through Independent Studies except those which are explicitly required for professional school degrees, shall be used to restore undergraduate academic eligibility in the General College and in the College of Arts and Sciences. The professional schools are: Journalism and Mass Communication, Business, Education, and Division of Health Affairs programs. Students should consult their dean before enrolling in one or more professional school courses.

Grades earned at another institution, however, cannot be transferred. In addition, students should understand the following regulations concerning restoration of academic eligibility:

A. If students enroll at another institution for twelve or more semester hours per academic term (fall or spring) before applying for readmission to the University, those semesters will count as semesters in residence and will determine requirements for restoring academic eligibility.
B. Students who are academically ineligible or who have pending academic eligibility or because of their cumulative grade point average should NOT attend another institution if they intend to return to the University at some future date.
C. Students who are declared academically ineligible, who attend another institution (summer, fall, or spring), and who apply for readmission must have at least a 2.0 (C) average in work at the other institution.
D. Academically ineligible students who have a housing assignment or a housing contract on file for the following semester should either notify the Housing Department at the University of their plans to seek continued admission by restoring their academic eligibility or cancel their application or contract.
Carolina Courses Online

Carolina Courses Online is a distance education program that offers courses via the Internet. Class sessions are not required, but courses follow the semester schedule. Students must have access to the World Wide Web and e-mail, with a browser the equivalent of Netscape 3.0 or higher. The courses are administered through the Division of Continuing Education, (919) 962-1134, www.unc.edu/depts/fri_centr/online.htm. To enroll, contact the Division of Continuing Education or visit the Web page.

Readmission

Students first entering the University after May 15, 1982, and withdrawing for any reason must meet the following requirements to be readmitted:

For readmission to a second semester in residence - a 1.00 cumulative grade point average and 9 academic semester hours passed (cumulative) are required. An academic warning is issued if the student has less than a 1.50 cumulative grade point average and less than 12 academic semester hours (cumulative).

For readmission to a third semester in residence - a 1.50 cumulative grade point average and 24 academic semester hours passed (cumulative) are required.

For readmission to a fourth semester in residence - a 1.50 cumulative grade point average and 36 academic semester hours passed (cumulative) are required. An academic warning is issued if the student has less than a 1.75 cumulative grade point average.

For readmission to a fifth semester in residence - a 1.75 cumulative grade point average and 51 academic semester hours passed (cumulative) are required.

For readmission to a sixth semester in residence - a 1.75 cumulative grade point average and 63 academic semester hours passed (cumulative) are required. An academic warning is issued if the student has less than a 1.90 cumulative grade point average.

For readmission to a seventh semester in residence - a 1.90 cumulative grade point average and 78 academic semester hours passed (cumulative) are required.

For readmission to an eighth semester in residence - a 1.90 cumulative grade point average and 90 academic semester hours passed (cumulative) are required. An academic warning is issued if the student has less than a 2.00 cumulative grade point average.

For readmission to a ninth semester in residence - a 2.00 cumulative grade point average and 105 academic semester hours passed (cumulative) are required.

Readmitted students receiving academic warnings should consult their academic dean about their status. Readmission will be blocked for any student unless prior tuition and other obligations due the University have been paid.

It should be carefully noted that the readmission requirements stated above are based on (1) the total number of academic terms in college, both here and at other institutions, and (2) the cumulative grade point average achieved on courses taken at the University without regard to grades earned elsewhere.

Also, a former student applying for readmission after attending another institution must have at least a 2.0 (C) average on all work taken and be eligible in all respects to return to other institutions attended since leaving the University.

Readmission is not automatic in any case. Each applicant is considered carefully in the light of all attendant circumstances, including enrollment limitations within the University. Application for readmission should be made as early as possible and in no case later than two weeks before the opening of the semester.

Students who have withdrawn from the University during a regular term (fall or spring) or who have been out because of academic ineligibility or for any other reason must apply to the Director of Undergraduate Admissions for readmission.

Nontraditional Readmission

Traditional undergraduate readmissions policy requires that former University students fulfill certain minimal University cumulative grade point average (and academic hours passed for students whose initial enrollment at the University occurred after May 15, 1985) requirements based on their total number of semesters in residence.

Although the traditional policy for readmission is the norm, the University recognizes that individuals can gain personal and intellectual maturity over a period of years. In such cases, the University may choose to evaluate applicants for readmission on the basis of their current academic promise rather than earlier academic performance.

Under this policy, the University will review applicants who have not been enrolled full-time in a formal educational program for at least five years and who by their special life experiences might be considered nontraditional applicants. Readmission to the General College or the College of Arts and Sciences under this policy requires the approval of the associate dean or appeals committee of the college.

Readmission to a professional school under this policy requires the approval of the professional school to which the student is seeking readmission.

Advising and degree-granting bodies within the University will monitor the performances of all individuals admitted under this policy. This monitoring will provide up-to-date guidance and counseling, and insure that each person readmitted fulfills the requirements for continued enrollment as specified in the letter of readmission issued by the Admissions Office. Students who fail to meet these requirements will not be permitted to continue their enrollment at the University and may not reapply at a later date for nontraditional readmission to the University.
Withdrawal

Students withdrawing from the University should complete an official withdrawal through the appropriate University office (see sections on Medical and Academic withdrawal below) before the end of classes during a semester or summer session. An official withdrawal constitutes an honorable dismissal from the University and may facilitate readmission. Failure to withdraw officially results in the assignment of IN or AB course grades which are computed as F grades in establishing grade point averages and academic eligibility.

Medical Withdrawal

If a student decides to withdraw for reasons of illness, the student should contact the Student Health Service, whether the treatment was received there or elsewhere. If a medical withdrawal is authorized, the official withdrawal will be handled through the Office of the Director of the Student Health Service. A medical withdrawal is effected without grades and without a semester in residence.

Academic Withdrawal

If a student decides to withdraw for reasons other than illness, or if a medical withdrawal cannot be authorized, the student must contact the dean’s office of the school in which he or she is enrolled. An official withdrawal involves the completion of an “Application for Withdrawal” form.

The student must obtain clearance signatures from course instructors and certain University offices, as determined by the dean’s office, before the form is submitted. In determining an undergraduate student's eligibility for readmission the following conditions apply:

Students who officially withdraw from the University are awarded a semester in residence if their withdrawal is initiated before the end of classes during a fall or spring semester, and if it is accompanied by the recording of six or more academic hours of F grades for that semester’s work.

Withdrawal from a summer session is not counted as a semester in residence. However, failing grades are recorded if the student is reported as below passing in more than one academic course. Students enrolled as summer session visitors must withdraw through the Office of the Director of the Summer School, Pettigrew Hall.

If a student completes an official withdrawal from a fall or spring semester, tuition and fees will be prorated over a period of nine weeks at a rate of one-tenth of the semester’s bill after deduction of an administrative charge. The last date for credit on a student’s financial account for withdrawal is nine weeks after registration. If a student completes official withdrawal from a summer session, tuition and fees will be prorated over a period of three weeks at a rate of one-fourth of the summer session’s bill after deduction of an administrative charge.

If students withdraw from the University during a semester and they receive financial aid funds prior to the date of withdrawal, they may be expected to repay a portion of the funds to the aid program(s). The repayment will be calculated by the Office of Scholarships and Student Aid when the student is cleared by that office at the time of withdrawal.

Retroactive Withdrawal

No retroactive withdrawal from a semester or summer session shall be approved for any reason, medical or otherwise, unless a written request for such action has been submitted within seventy-two hours of the end of the final examination period of that semester or summer session.

Appeals for exceptions on the basis of extraordinary circumstances must be addressed to the appeals committee of the administrative board of the college or school having jurisdiction over the student during the semester or summer session in question. The decision of that appeals committee is final.

Dean’s List

To be eligible for the Dean’s List, students must meet one of the following requirements: (1) a 3.2 quality-point average with no grade lower than a C if enrolled in fifteen or more hours of letter-grade credit, exclusive of physical education activities courses; (2) a 3.5 quality-point average with no grade lower than C if enrolled in at least twelve but fewer than fifteen hours of letter-grade credit, exclusive of physical education activities courses. The grade point average is based on the grades received and recorded at the time the Dean’s List is published by the Office of the University Registrar. No changes are permitted to the Dean’s List after that date.

Graduation

To qualify for an undergraduate degree, a student must successfully complete at least 120 semester hours, not including physical education activities courses (quantitative requirements are higher than this minimum in some Bachelor of Science degree curricula). Also, the student must have a 2.0 (C) average on all work attempted at The University of North Carolina at Chapel Hill.

The required 2.0 average must be earned in a total number of hours not to exceed 45 hours beyond the minimum graduation requirements for the degree being sought. A minimum of 45 hours of academic credit must be taken at UNC-Chapel Hill. At least 24 of the last 30 hours must be taken on the UNC-Chapel Hill campus. In the College of Arts and Sciences, at least 18 semester hours of work with grades of C or higher are required in the student’s major, and at least half of the student’s major must be completed in this University.

Beginning with the first day of classes in the term for which the students expect to graduate, students should file an application for a degree in the office of the dean. A stu-
student who has not filed an application for graduation on or before the announced deadlines for fall graduation and for spring graduation may not be included in the list of graduating seniors.

Students must pay tuition, fees, and other obligations owed the University before receiving a diploma.

**Transcripts of Record**

A statement of official academic record includes all significant recorded information concerning the student's admission, classification, and scholarship. No partial or incomplete scholastic record will be given. If the student's scholastic progress has been such as to prevent his or her continuance in the University and eligibility has not been retained or restored, a plain statement of this fact will be included.

A statement of honorable dismissal will not be granted to students whose conduct and character would not entitle them to remain in the University. In every transcript full mention will be made of any probation, suspension, or other temporary restriction imposed for unsatisfactory conduct and still in force when the statement is made. The University does not release an official transcript unless tuition, fees, and other obligations due the University have been paid.

Students may inspect their academic records at the Registrar's Office, 105 Hanes Hall. Students have three methods by which they may obtain a transcript from the University Registrar's Office: by phone/fax (for pick up after 24 hours), in person (for pick up after 24 hours), or in writing. These methods require the student's signature in order for the University Registrar's Office to release the transcript. For more information on how to request a transcript, please call (919) 962-2350.

**Veterans Educational Benefits**

Students who expect to use their veterans' educational benefits should contact the Veteran Affairs Certifying Office in the University Registrar's Office, 105 Hanes Hall, or call 919-962-8292.

**Loan Deferments, Certification/Verification of Enrollment Status**

The University Registrar's Office provides confirmation of student enrollment data to financial institutions, organizations, or agencies requiring proof of registration. Students may come to 105 Hanes Hall or mail their request to the University Registrar's Office, CB# 2100, 105 Hanes Hall, Chapel Hill, N.C. 27599-2100 to obtain an enrollment certification.

**Interinstitutional Registration**

A student regularly enrolled in a degree program at the University may enroll by interinstitutional registration for a course at Duke University, North Carolina Central University, North Carolina State University, The University of North Carolina at Charlotte, or The University of North Carolina at Greensboro under the following conditions:

A. Space must be available in the course.
B. The student's academic dean must certify:
   1. that the course is appropriate for the student's degree program, and
   2. that an equivalent course is not available at this University during the same term.

Additional information, procedural instructions, and forms are available at the Registrar's Office, 105 Hanes Hall.
Division of Student Affairs

SUSAN T. KITCHEN, Vice Chancellor
  for Student Affairs
Dean L. Bresciani, Associate Vice Chancellor for Student Services
Cynthia Wolf Johnson, Associate Vice Chancellor for Student Learning
Sherry B. Morrison, Assistant to the Vice Chancellor for Planning and Evaluation
Judy W. McGowan, Director of Finance and Personnel

The importance of the learning process is paramount at The University of North Carolina at Chapel Hill. The Division of Student Affairs provides many services and programs that encourage and support the learning that takes place beyond the classroom. These departments and programs aim to assist students in integrating the various aspects of their lives so as to promote learning, self-awareness, self-determination, and broadened perspectives on the world.

Student Affairs departments and programs afford students the opportunity to develop skills to improve performance inside and outside the classroom; to develop leadership skills; to find opportunities to serve fellow students and the community; to explore, plan, and prepare for a career; to plan for an active and rewarding life; and to develop a clear sense of self, improved interpersonal skills, and the ability to choose wisely.

Information on each of these departments and programs is presented below. Students are encouraged to explore the opportunities offered by the Division of Student Affairs throughout their University careers, either directly through the respective departments or through the Office of the Vice Chancellor.

The Office of the Vice Chancellor in 102 Steele Building coordinates the division's programs and provides guidance and leadership for its departments. The office also acts in a consulting role for faculty, administrators, and students who wish to raise issues that concern the University community, with a particular focus on student needs. Members of the Office of the Vice Chancellor also serve on various University committees to represent the division's several constituencies.

Carolina Leadership Development promotes effective leadership and citizenship through experiential learning, training, and resources. Several programs, academic seminars, and resources are available to all students. The North Carolina Fellows Program, founded in 1968, is a highly selective four-year program designed to support and accelerate the development of highly motivated undergraduates with exceptional leadership potential. One of three such programs in the state, this program seeks to develop in students a strong sense of responsibility toward those whom they serve. Students participate in educational retreats, an academic seminar, monthly seminars with community leaders, internships, and community service projects. Each spring semester, all freshmen at Carolina are invited to apply to the program. The Mentoring Program is a one-year program for first-year women students interested in leadership. Students are joined by female faculty and staff members who serve as mentors. Together they attend sessions focused on issues related to women in leadership. The Emerging Leaders Program is a one-year leadership development program open to sophomores, juniors, and seniors. The program includes skills training workshops, experiential learning seminars, and organizational development sessions. Those who complete the program may continue the next year by participating as small-group facilitators through the Facilitating, Assessment, Coordination, and Training (FACT) Program. Students interested in furthering their skills may then serve as programming leadership coordinators (PLCs). Two academic courses are offered: Dynamics of Effective Leadership and Advanced Leadership Seminar. For more information about any of these programs, please contact Carolina Leadership Development, 01 Steele Building, 962-8304, <lead@email.unc.edu>, or you may visit the World Wide Web site at: <www.unc.edu/depts/lead/Lead.html>.

The Office of Greek Affairs provides services, programs, and assistance to the forty-six fraternities and sororities that make up the Chapel Hill Greek community. The office mission is to ensure that every member of a fraternity or sorority has a safe, high-quality undergraduate fraternal experience. The office works closely with the individual fraternities and sororities, as well as with the three governing bodies (NPHC, Panhellenic, and the IFC), to uphold the principles upon which fraternities and sororities were founded: scholarship, community service, campus involvement, and brotherhood/sisterhood. The groups reach these goals by maintaining above-average grades; contributing more than 50,000 hours of community service each year and raising more than $150,000 for charities annually; being involved in other student organizations; and nurturing a small-group, supportive environment that makes all this possible. Being Greek at Carolina is a very popular option, as eighteen percent of the undergraduate students are members of fraternities and sororities. If you have a question, please call the Office of Greek Affairs, 06 Steele Building, CB# 5100, 962-8298; e-mail: <greeks@unc.edu>; or check out our Web site at <www.unc.edu/depts/greek>.

The Orientation Office is responsible for familiarizing new students with the University. The Orientation Office
strives to lessen new students’ anxiety and increase their confidence, and to make them comfortable within the University environment. The orientation program promotes a smooth transition to the new academic and physical environment, familiarizes new students with University procedures, and offers early social opportunities. The office administers orientation programs for all new freshmen and transfer students. The programs are designed to address the specific needs and different concerns of these groups. The Orientation Office also coordinates freshman placement testing and fall semester registration through the General College. The office relies heavily on student employees and volunteers to achieve its goals.

The Department of Disability Services ensures that the programs and facilities of the University are accessible to all students. The University of North Carolina at Chapel Hill provides equal opportunity in higher education to academically qualified students who have a disability that may require some accommodations so that they may independently meet the demands of University life. Services are designed and developed on an individual needs basis, and students may elect to use any or all of the services, appropriate to their needs at no charge.

A visit to the campus before acceptance or matriculation is also recommended, at which time the applicant may meet with the Department of Disability Services personnel to discuss questions and special concerns. Arrangements for visits may be obtained in writing to the Director, Department of Disability Services, CB# 5100, Steele Building, The University of North Carolina at Chapel Hill, Chapel Hill, N.C. 27599-5100, or by calling (919) 962-8299 (voice) or (919) 962-8300 (TDD). Visit our Web site at <www.unc.edu/depts/disability>.

Campus Safety is emphasized by programs and services developed to provide the University community with up-to-date information about safety measures, support services, and education regarding sexual assault and other crimes. Several University agencies and student groups work together to meet the needs of the campus and have formed a comprehensive approach to dealing with the issues of personal safety. Campus security issues are coordinated by the Campus Security Committee, which publishes on behalf of the Chancellor the University’s Annual Security Report. Copies of the report are available on campus. Copies of the report are mailed or delivered to all current students near the beginning of the fall semester each year. Prospective students may request a copy from the Admissions Office.

The University Response Plan for Sexual Assault Victims provides support and consistent response to victims of sexual assault. The plan gives medical, counseling, law enforcement, academic assistance, and housing options to victims.

SAFE Escort, a student-sponsored escort service, is a practical alternative to walking home alone at night. Escort service is available from all University buildings and libraries, sorority houses, Granville Towers, and the commercial and residential locations near North, Mid, and South campuses. If you need an escort or wish to become one, call 962-SAFE. For students, P2P operates an after-dark shuttle service with trips arranged by telephone (962-7867). The service is available for transportation across campus at night. Also, during the fall and spring semesters, the P2P Xpress operates between 7 p.m. and 3 a.m. on a fixed route, stopping at predetermined points around campus every fifteen minutes. The University’s Physical Plant, with significant support from the Campus Security Committee and Student Government, regularly check lighting and other security concerns on campus.

The Office of the Dean of Students, in cooperation with student organizations and local community agencies like the Orange County Rape Crisis Center, provides training and education to students on issues such as date rape, sexual harassment, and personal security. University Police also offers educational and informational programs, while regularly publishing campus crime statistics.

For information on University regulations on the use of firearms, and other weapons on campus, please refer to the appendix of this publication. The University’s drug policy also is located in the appendix.

Departmental Programs and Services

The University Counseling Center (UCC) is an applied psychology facility dedicated to the principle that the college years should be as rewarding and growth-enhancing as possible. It offers a variety of services designed to assist students in adjusting and performing well at the University, and to enhance student performance in academic, career, and personal functioning. Services and programs offered by the center include, but are not limited to: academic major and career testing and decision making; personal consultation, guidance, and counseling; training and development programming; minority student programming; and national testing. The University Counseling Center is located in Nash Hall on Pittsboro Street, (919) 962-2175. E-mail address: <ucc@email.unc.edu>. Home page URL: <http://www.unc.edu/depts/ucc/>.

University Career Services assists students who have identified their career direction. The office provides information, career advising, and career-related programs for undergraduates in order to help them learn about various careers and the best ways to prepare for them. Many resources are available to help students seeking internships. Services for undergraduates include workshops on résumé-writing, interviewing, and job-seeking skills; résumé-mailing to employers; individual career advising; on-campus interviewing; job vacancies and internships on-line; a reference file for students in selected curricula; and many print and electronic job search resources. Some services are limited to students in a UNC-Chapel Hill degree or certification program who are within two semesters of graduation. Additional resources and programs include occupational
and employer information, career panels, career and graduate/professional school fairs, and an automated alumni network service. University Career Services is located in 211 Hanes Hall. WWW address: <http://www.unc.edu/epts/career>. E-mail address: <UCS@unc.edu>.

The Student Health Service (SHS), located next to Kenan Stadium, has overall responsibility for the health care of all University students. Any student who has paid the student health fee for the current semester or summer session is eligible for health care at the SHS. The fee covers the cost of most services provided by SHS professionals, including physicians, physician extenders, physical therapists, and mental health professionals. Laboratory and X-ray studies at SHS require a copayment by the user.

Additional charges are made for after-hours care, inpatient rooms, drugs, miscellaneous supplies, and laboratory and X-ray studies. Spouses not enrolled in the University as students become eligible to receive the same services as students by demonstrating appropriate insurance coverage and by paying the student health fee at SHS.

The SHS provides a comprehensive program of health care delivery including general outpatient and inpatient medical care, a pharmacy, and specialized clinics in Allergy, Gynecology, Sports Medicine, and Mental Health. Additional services provided within SHS by specialists include the Orthopedics, Dermatology, Dysplasia, and Ear, Nose and Throat (ENT) Clinics. There is an additional charge for these services.

The Health Education staff provides prevention and educational programs in lifestyle self-care skills such as exercise, nutrition, weight control, chemical and substance abuse, and stress management. The Peer Drug and Alcohol Program provides educational programs.

The Contraceptive Health Education Clinic (CHEC) offers presentations on contraception, sexually transmitted diseases (STDs), acquired immune deficiency syndrome (AIDS), and other sexual health issues on individual (by appointment) or group (by request) basis. Fight AIDS Through Education (FATE) is an AIDS education outreach program focusing on concise, concrete information about AIDS and encouraging the use of decision making skills imparted by this program. Student Health Service serves as a confidential HIV testing site for students.

The Wellness Resource Center is located in the Student Recreation Center and provides individual health assessment sessions plus scheduled group programs in health promotion.

Special multidisciplinary treatment teams assess and treat substance abuse and eating disorder problems. SHS is an authorized site for assessment and follow-up of DWI (Driving While Impaired) convictions.

SHS Office hours are 9 a.m. to 4:30 p.m. Monday through Friday and 9 a.m. to noon on Saturday. Students are seen on an appointment basis. Correct numbers for the various clinics are in the phone directory. After regular office hours and on weekends, physician extenders are available for acute care with medical and psychiatric backup. There is an additional fee for after hours care. In general, students should go to the SHS first. Major problems may be referred to the UNC Hospitals Emergency Room. Students should be aware that medical care at UNC Hospitals or other facilities is not covered by the student health fee.

Because the health fee does not cover hospitalization, surgery, and intensive care, it is strongly recommended that students have additional health insurance. The University has made arrangements with Blue Cross/Blue Shield to offer group health insurance coverage including major medical benefits to enrolled single and married students, their spouses, and children. For information, contact Hill, Chesson, and Associates (Insurance Brokers), P.O. Box 3666, Chapel Hill, N.C. 27515. Telephone (919) 967-5900.

North Carolina law requires all new students at the University to document immunization records or undergo vaccination. Failure to comply results in cancellation of registration thirty days after classes begin. Immunizations are offered at reduced rates.

The International Center, located in the Frank Porter Graham Student Union, assists students and faculty from other countries with their adjustment to life in Chapel Hill. The center advises individuals and University departments on regulatory matters pertaining to international students and faculty. Activities are offered which, in addition to helping international students benefit as much as possible from their stay here, also promote interaction between students from the United States and international students. The activities also encourage the University and local community to benefit from the presence of international students and faculty. Activities include a special orientation, the Host Family Program, the Speakers' Bureau, the English Conversation Partners Program, the International Women's English Conversation Group, and various cultural programs. The Class of '38 Summer Study Fellowships are administered by the center.

Since its founding in 1860, the Campus Y has been a starting point for the development of many programs responding to students' concerns. In particular, the Y serves as a bridge between the University and the local community, providing opportunities for cooperation in addressing the needs of both groups. Students participate in Y-sponsored committees, some of which engage in community outreach (such as the Big Buddy, Elderly Exchange, and Tutoring programs), while some are concerned with social issues (such as Human Rights Week and the Advocates for the Empowerment of Women of Color). Other Y committees are involved in global action (such as Hunger Responsibility and the South African Scholarship Fund) or in fund-raising for the Y (e.g., the Foot Falls Road Race).

In addition to involvement in these and other committees (twenty this year), the opportunity exists for students to serve on the Y Student Executive Committee, for which elections are held in the spring. All students are welcome to visit the Campus Y office (in Room 102 of the Campus Y Building) to learn about volunteer service and University, local, and global issues.
The Carolina Union is the term used for both the Frank Porter Graham Student Union Building and its operating organization. Governed by a board of directors made up of students, staff, and faculty, the Carolina Union's role is to bring the diverse campus community together by providing programs, services, and facilities.

Social, cultural, educational, and recreational programs are planned and implemented by the all-student Carolina Union Activities Board. Composed of a president and committee chairpersons (selected through open interviews each spring), the Carolina Union Activities Board provides valuable leadership experiences for the students involved. Students are welcome to visit Room 200 to find out how they may join committees that create the many programs offered by the activities board.

The Frank Porter Graham Student Union building also houses the offices of major student organizations including Student Government, the Graduate and Professional Student Federation, the Black Student Movement, the Sonja Haynes Stone Black Cultural Center, and the Residence Hall Association. Official University recognition of all student organizations, along with major event planning of student activities, is provided through the Union's main administrative office, Room 201-C. Several student media organizations reside in the building such as the Black Ink, The Daily Tar Heel, The Phoenix, Cellar Door, Yackety Yack, WXYY, and Student Television.

The Frank Porter Graham Student Union is the "living room of the campus." The Union provides convenient and comfortable lounge space, art galleries, a movie theater, bowling lanes, billiard tables, pinball and video games, big-screen TVs, food services, vending machines, and an information desk and ticket office. The Carolina Union Ticket Office sells tickets to numerous on-campus performances, including the Carolina Union Performing Arts Series. This series presents professional artists and touring productions in Memorial Hall. The Central Reservations Office serves recognized student organizations by scheduling meeting rooms in the Union and in other campus facilities.

The Carolina Union is the place to meet friends, to relax, to learn, to have fun, to get involved, and to just be—the place where the campus community comes together.

The Office of the Dean of Students (located in 01 Steele Building) is actively concerned with broad areas affecting student services and student involvement at the University. The staff operates as an advocate for student needs and as an information center for referrals and questions from throughout the University community. The staff assists the University in upholding its ideals of personal conduct—academic and nonacademic—through educating members of the University community about the student judicial system and through overseeing the system's operation. Staff members advise the Judicial Branch of Student Government and design programs to address campus issues, such as harassment and assault prevention, education, and response. The office helps students, parents, and University staff with personal problems or crises involving students.

Student housing is an integral part of the University's educational program. The primary objective of the Department of University Housing is to provide a physical and psychological atmosphere conducive to the development of each student's personality and abilities. The Department of University Housing is a part of the Division of Student Affairs.

The director of the department works with a professional staff who manages housing contracts and assignments, business affairs, residence life, maintenance and operation, and student family housing. Nearly three hundred people make up the Residence Hall staff, which includes full time area directors for each residential area, assistant area directors, a student resident assistant for each floor or wing, desk assistants, and secretaries. Area directors and assistant area directors have overall responsibility for the residence halls, including overseeing physical operation of the building, managing services provided to residents, and supervising residence hall staffs.

Resident assistants work closely with University students, acting as an important source of help and information to residents, facilitating residence hall activities, and helping to fairly enforce the rules and regulations necessary to provide conditions which will enhance residents' personal, social, and academic development. The housing department/support staff includes 150 tradespeople and housekeepers.

Student Family Housing. UNC-Chapel Hill owns and operates 306 one and two-bedroom apartments for married and single parent students. The apartments are conveniently located in Odum Village, one mile south of the center of campus.

To be eligible for Student Family Housing, either spouse must be a registered, full-time student. For more information about Student Family Housing write to: Department of University Housing, Assignments Office, CB# 5500, Chapel Hill, N.C. 27599-5500.

Co-curricular Involvement

Undergraduate students encounter many experiences outside the classroom that contribute to personal and skills development. Involvement in co-curricular activities is one such experience. Through meeting and working with others in co-curricular activities, students gain in self-understanding, develop relationships, establish personal values and beliefs, and further develop their abilities and intellect. Each year, the University recognizes approximately 350 co-curricular organizations formed by students. The organizations include academic, cultural and international, honorary and service societies, music and performance, publications and media, religious, social fraternities and sororities, sports and recreation, student government, and special interest organizations. This wide variety allows each student to select areas of particular interest, yet there are no limitations, as students
may create new organizations if they have additional interests.

Opportunities exist to gain leadership experience and skills by serving as officers of these organizations. Training in leadership development is offered to members of recognized organizations through the Office of N.C. Fellows and Leadership Development at 01 Steele Building in the Division of Student Affairs. There are also opportunities for involvement in community service and related organizations on the campus, such as the Campus Y and the Carolina Union. Involvement in these organizations provides students with the potential for personal and skills development.

Students interested in learning more about how to get involved and about the opportunities available are encouraged to visit the Assistant Director—Student Activities, 201 Carolina Union.

Recognition of Co-curricular Student Organizations

The University requires that co-curricular student organizations be officially recognized each academic year. This recognition process is designed to ensure that student organizations which are affiliated with the University do not discriminate on the basis of race, religion, national origin, disability, age, veteran status, gender, or sexual orientation. In addition, official recognition provides student groups with the following benefits: applying for use (through reservation) of specified University facilities, property, services, or equipment pursuant to the Facilities Use Policy; use of the University's name in the organization's title, so long as University sponsorship or endorsement is not implied or stated; the privilege of applying for funding from the Student Activity Fee which is legislatively apportioned by the Student Congress; and the assistance of University staff.

Applications for official University recognition must be completed annually, in order to ensure that active students are aware of University policies and to provide staff with information concerning University-recognized student organizations.

Applications are available from the Assistant Director, Student Activities, 201 Carolina Union. All information in and attached to the application is considered public information upon the granting of recognition.

Student Judicial Governance

For over a century, students at The University of North Carolina at Chapel Hill have accepted responsibility for their own conduct and discipline in academic and nonacademic affairs. Although the specific expectations with regard to student behavior have varied over time, the faith in the individual student's ability to conduct himself or herself in an honorable fashion has not changed. The trust bestowed upon students has precluded the necessity of any extensive system for monitoring student behavior inside or outside the classroom. There is no need for active proctoring of exams by instructors, or for oppressive supervision of student life outside the classroom. The honor system has helped to cultivate the environment of relaxed pursuit of academic and social activities enjoyed by the whole University community.

With this trust comes also an added degree of responsibility for students at UNC-Chapel Hill to uphold the commitment to live by two codes of conduct. The Honor Code forbids lying, cheating, and stealing by students in any academic process. The Campus Code sets student expectations outside the classroom, by requiring students to conduct themselves in a manner that does not significantly impair the welfare or the educational opportunities of others. Both the faculty and the administration at UNC-Chapel Hill have approved as a body these two codes, and the two groups continue to play an integral role in the student judicial system.

Each student's acceptance of enrollment in the University presupposes his or her commitment to the Honor Code and to the Campus Code, and to the principles of self-regulation on which their continued viability rests.

The Honor Code:

It shall be the responsibility of every student at The University of North Carolina at Chapel Hill to obey and to support the enforcement of the Honor Code, which prohibits lying, cheating, or stealing when these actions involve academic processes or University, student, or academic personnel acting in an official capacity.

Mutual Responsibilities of the Faculty and Students

(excerpt from The Instrument of Student Judicial Governance)

Academic work is a joint enterprise involving faculty and students. Both have a fundamental investment in the enterprise and both must share responsibility for ensuring its integrity. In relation to the Honor Code, therefore, specific responsibilities of the faculty which parallel the responsibilities of the students have been formally adopted by the Faculty Council.

A. Responsibility of Students

1. To conduct all academic work within the letter and spirit of the Honor Code which prohibits the giving or receiving of unauthorized aid in all academic processes.

2. To consult with faculty and other sources to clarify the meaning of plagiarism; to learn the recognized techniques of proper attribution of sources used in the preparation of written work; and to identify allowable resource materials or aids to be used during examination or in completion of any graded work.

3. To sign a pledge on all graded academic work certifying that no unauthorized assistance has been received or given in the completion of the work.
4. To comply with faculty regulations designed to reduce the possibility of cheating—such as removing unauthorized materials or aids from the room and protecting one's own examination paper from view of others.

5. To maintain the confidentiality of examinations by divulging no information concerning an examination, directly or indirectly, to another student yet to write that same examination.

6. To report any instance in which reasonable grounds exist to believe that a student has given or received unauthorized aid in graded work. Such report should be made to the Office of the Student Attorney General or the Office of the Dean of Students.

7. To cooperate with the Office of the Student Attorney General and the defense counsel in the investigation and trial of any incident of alleged violation, including the giving of testimony when called upon. Nothing herein shall be construed to contravene a student's rights enumerated in Section V.A.2.b. of The Instrument.

B. Responsibility of Faculty

1. To inform students at the beginning of each course and at other appropriate times that the Honor Code, which prohibits giving or receiving unauthorized aid, is in effect. Where appropriate, a clear definition of plagiarism and a reminder of its consequences should be presented, and the extent of permissible collaboration among students in fulfilling academic requirements should be carefully explained.

2. To identify clearly in advance of any examination or their graded work the books, notes, or other materials or aids which may be used; to inform students that materials or aids other than those identified cannot be used; and to require unauthorized materials or aids to be taken from the room or otherwise made inaccessible before the work is undertaken.

3. To require each student on all written work to sign a pledge when appropriate that the student has neither given nor received unauthorized aid. Grades or other credit should not be awarded for unpledged work.

4. To take all reasonable steps consistent with existing physical classroom conditions—such as requiring students to sit in alternate seats—to reduce the possibility of cheating on graded work.

5. To exercise caution in the preparation, duplication, and security of examinations (including make-up examinations) to ensure that students cannot gain improper knowledge of their contents.

6. To avoid, when possible, reuse of instructor-prepared examinations, in whole or in part, unless they are placed on reserve in the Library or otherwise made available to all students.

7. To exercise proper security in the distribution and collection of examination papers; and to be present in the classroom during an examination when the instructor believes that his or her presence is warranted or when circumstances, in his or her opinion, make his or her presence necessary.

8. To report to the Office of the Student Attorney General or the Office of the Dean of Students any instance in which reasonable grounds exist to believe that a student has given or received unauthorized aid in graded work. When possible, consultation with the student should precede reporting. Private action as a sanction for academic cheating, including the assignment for disciplinary reasons of a failing grade in the course, is inconsistent with faculty policy and shall not be used in lieu of or in addition to a report of the incident.

9. To cooperate with the Office of the Student Attorney General and the defense counsel in the investigation and trial of any incident of alleged violation, including the giving of testimony when called upon.

The Campus Code:

It shall be the further responsibility of every student to abide by the Campus Code; namely, to conduct oneself so as not to impair significantly the welfare or the educational opportunities of others in the University community.

All conduct that infringes upon the rights or welfare of others at the University is thus embodied in the Campus Code. Violations of the Campus Code are handled in the same manner as violations of the Honor Code.

Procedure for Reporting. Violations of either the Honor Code or Campus Code should be reported to the Student Attorney General (Room 207 Carolina Union, 966-4084) or the Office of the Dean of Students (Room 01 Steele Building, 966-4042). Faculty members who have cause to turn in a student should handle the case in the same manner.

Other Information. Complete information on the Student Judicial System including the Code of Student Conduct, procedures of hearings, appeals, sanctions, and guaranteed student rights may be obtained in The Instrument of Student Judicial Governance which is provided to each entering student and is always available in the Student Attorney General's office and the Office of the Dean of Students.

Student Government

The by-laws of the Board of Trustees of the University invest in the Chancellor of the University "the duty... to exercise full authority in the regulation of student conduct and in matters of student discipline..." At the same time the Chancellor may delegate, and has delegated, authority to exercise disciplinary and administrative functions in student life to agencies of Student Government. Thus, within the context of this delegated authority and responsibility, the student body at the University has for decades been self-governing.

Student Government at Carolina is more than one hundred years old, and hundreds of students are involved in the various branches every year. From serving on the Board of
Trustees to the appropriating of student fees, from instituting governmental service to enforcing the Honor Code, Student Government affects every day of student life.

The entire framework of Student Government's activities rests on its ability to maintain the foundation of administrator-student relations: The University should serve as an adviser—not as a supervisor to the student body. In order to enjoy this freedom, students at Carolina must be willing to take a certain amount of responsibility to develop their own lifestyles. Student Government serves to maintain this freedom and the advisory, not supervisory, relationship.

Almost from the University's beginnings in 1795, students shared in managing their own affairs. In the Dialectic and Philanthropic Debating Societies, the forerunner of the present Student Government was born. Every student at the University belonged to one or the other of these societies, and the organizations assumed responsibility for maintaining discipline.

In 1876 the Honor System officially ended all vestiges of the monitorial system; in 1904 a judicial body, the University Council, was established; in 1938 the Student Legislature was established; and in 1946 a written constitution was approved. In 1968 the coeducational Honor Court was formed out of the Men's Court and Women's Court to hear all Honor Code cases. The Instrument of Student Judicial Governance was ratified and put into operation in 1974.

Roughly patterned after the federal system of government with its three branches, Student Government at UNC-Chapel Hill consists of an executive branch, a legislative branch, and a judicial branch. Heading the executive branch is the President of the Student Body, assisted by the Vice President, Executive Assistants, and the Treasurer. The President designs a Cabinet and committees to work in areas of student concern.

Listed below are student officers and organizations:

A. Executive Branch
   1. Officers—President, Vice President, Secretary, Treasurer, Executive Assistants, Elections Board Chair.
   2. Examples of committees that address various areas of student concern:
      Campus Liaison
      Campus Security
      Chancellor's Committees
      Education/Academic Affairs
      Disability Services
      Parking
      Publicity
      Housing

B. Judicial Branch

Undergraduate Court. This body maintains original jurisdiction with respect to all violations of the Code of Student Conduct except those in which another court may have specified jurisdiction.

Office of the Student Attorney General. The staff investigates alleged violations of the Code of Student Conduct and brings to trial those charges sufficiently supported by evidence; the staff also advises and assists students accused of violations.

University Hearing Board. This court has original jurisdiction in cases deemed inappropriate for hearing within another court and appellate jurisdiction with respect to cases appealed from other courts.

Student Supreme Court. This body adjudicates all issues of student constitutional law to be decided under the Student Government Code.

C. Legislative Branch

The Student Congress (SC). The legislative branch of Student Government is unicameral (one house), consisting of thirty-two representatives elected by the student body, with the President and the Treasurer of the Student Body serving as nonvoting ex officio members. The Speaker of the SC is elected from among the thirty-two representatives. Graduate and professional students and on- and off-campus undergraduates are proportionally represented in the Congress.

The Congress handles a vast amount of legislation and, as one of its primary responsibilities, prepares an appropriations budget. A predetermined amount, set by the Trustees, of fees paid by each student provides the source for the Student Government Budget.

The representatives are elected in the spring for one-year terms, and each member serves on one of three standing committees—Finance, Rules and Judiciary, and Student Affairs. A fourth committee, Ethics, is comprised of senior members of the Congress.
Facilities and Services

The University of North Carolina at Chapel Hill is determined to maintain physical and instructional facilities that respond to increased enrollments while remaining commensurate with the University's standards of academic excellence. Supplementary facilities and modern equipment have been added to older classrooms and laboratories, and new buildings have been constructed and new programs developed that aid the students' academic progress and enhance their total education. The following information describes the University's facilities and services.

The North Carolina Botanical Garden, located near the intersection of Manning Drive and Fordham Boulevard (15-501 Bypass) on the UNC-Chapel Hill campus, is a center for the study, display, interpretation, and conservation of plants and of the natural areas of which these plants are a part. Garden staff administer several sites, including the 250-acre North Carolina Botanical Garden main visitor area and trails, the five-acre Coker Arboretum in the heart of the campus, and the 367-acre Mason Farm Biological Reserve. The garden, which emphasizes the botany, ecology, and horticultural uses of southeastern native plants, maintains natural habitat gardens representing North Carolina's coastal plain, piedmont, and mountains. Other collections include perennial displays, rare and aquatic plants, a plant families garden, an extensive carnivorous plant display, and the award-winning Mercer Reeves Hubbard Herb Garden. The Coker Arboretum contains approximately 580 species of native and exotic trees and shrubs amid lawns intersected by brick and natural paths.

The garden is an outdoor laboratory and museum that supports University teaching and research. Its collections and trails also offer a variety of opportunities for general education and quiet recreation in the display gardens and nature trails; in the garden's public classes, workshops, and lectures; and in interpretive exhibits.

Admission to all sites is free. University students, faculty, and staff are welcome and encouraged to use garden sites for education, recreation, and contemplation. They are welcome, as well, to become members of the Botanical Garden Foundation, Inc., the garden's membership support organization. Call 962-0522 for student, individual, and family rates. Members receive the garden's bimonthly newsletter and other benefits, including invitations to special member events.

The Library System. The University's library system holds nearly five million volumes, and is the twentieth largest in America and the second largest in the Southeast. While undergraduates are welcome to use all campus libraries, the Robert B. House Undergraduate Library is specially designed to serve them.

House Library contains a collection of 140,000 titles covering almost all subjects, an array of databases, reference service, library instruction, and individualized term paper consultations. In addition, it houses the Reserve Reading Collection, a microcomputer laboratory, and films, videocassettes, compact discs, slides, and audio recordings in its Nonprint Collection. During the academic year, the building is open twenty-four hours, Monday through Thursday, providing a comfortable, safe, and convenient place for study, research, and computing.

The Walter Royal Davis Library is located just a short distance from the House Undergraduate Library. With nearly 3,000 seats, seven miles of books, and in-depth reference service, Davis is the main campus library. The Louis Round Wilson Library houses special collections such as the Rare Books, North Carolina, and Manuscripts collections. In addition, departmental and professional school libraries in other buildings support research in many disciplines with expert staff and specialized subject collections.

The Ackland Art Museum, on Columbia Street just south of Franklin Street, houses an internationally known collection of more than 14,000 works of art, ranging from ancient times to the present. The museum is especially rich in European painting and sculpture of the Renaissance and Baroque periods and the nineteenth century, in Asian painting and sculpture, and in North Carolina folk art including wood carving, painting, and ceramics. The collections of old master and modern drawings and of nineteenth- and twentieth-century photography are among the most important in the Southeast. Groups of ten or more students may schedule tours of the museum's collection by calling Carolyn Wood, university educator: 962-3344 (voice) or 962-0837 (TDD). Find out about exhibitions, programs, and special events by dialing the Ackland Info Line at 406-9837.

Students with an interest in fine arts and public service are encouraged to become involved as volunteers at the Ackland. Volunteer docents, trained by the museum staff, provide educational services to the University community, including gallery tours, lectures, and special programs organized in conjunction with temporary exhibitions.

Students are encouraged to join the museum's membership group, at the student membership rate. Members receive the Museum newsletter and are invited to a number of special events at the Ackland.

The Research Laboratories of Archaeology is one of the preeminent institutes for archaeological research in the South. Located on the first two floors of the Alumni Building, its facilities include laboratories, a library, a darkroom, microcomputers, and extensive collections of archaeological records and artifacts. The collections consist largely
of materials excavated from North Carolina and adjacent states. They also contain ethnographic and archaeological specimens from Latin America, Europe, Africa, and Asia. Exhibits on North Carolina archaeology are maintained on the first floor of the Alumni Building and are open to the public during normal business hours.

This unit regularly holds public programs on archaeology for students and community members alike. It also provides numerous opportunities for undergraduates to participate in archaeological research. Students interested in archaeology are encouraged to visit the Laboratories.

The Morehead Planetarium, one of the largest planetariums in the United States, is located on the north end of the University campus. The Morehead Planetarium building and grounds, complete with a 68-foot, domed Star Theater, scientific exhibits and classrooms, 24-inch reflecting telescope and observation decks, Visitors' Center, art gallery, and rose gardens with massive sundial were built for students of all ages and interests.

Public star shows, which run every evening (except Mondays) at the planetarium, explore the latest topics in astronomy and space science. From Mars Pathfinder to UFOs, the star shows encourage exploration of the universe for all ages. On Friday evenings Planetarium staff members host popular live, interactive narrated shows. Weekend matinees give children a chance to explore the stars through such characters as Winnie the Pooh and Rusty Rocket. Many planetarium shows are completely original and produced on location at the Morehead. Films and laser shows are among other annual attractions that the planetarium offers. The planetarium generates involvement from the entire community through noncredit classes for adults and children, special programs, public viewings of astronomical events, and memberships at a variety of levels.

The Morehead Planetarium building was a gift of industrialist John Motley Morehead III (1870-1965), class of 1891, whose mission of science education and outreach is realized through the planetarium's programs. Since 1949, the Star Theater has been a giant classroom for students, teachers, school groups, senior citizens, youth groups, and the general public. An early contributor to the American space program, the Morehead Planetarium provided training for United States astronauts from the Mercury to the Apollo-Soyuz program.

The building houses special rooms for University functions, including a 400-seat banquet facility and the domed State Dining Room, and is the headquarters for the John Motley Morehead Foundation and its programs.

UNC-Chapel Hill's campus computing services are organized under a central office—Information Technology Services (ITS)—comprising Academic Technology & Networks (ATN) and Administrative Information Services (AIS).

Applicants to Undergraduate Admissions can apply to the University using the World Wide Web (WWW). Enrolled undergraduate students can view their academic record and update their permanent and grade billing addresses over the WWW through services provided by AIS.

Most undergraduate students will have their main contact with ITS through ATN, which manages academic computing, e-mail, public microcomputer labs, ResNet services, interactive media presentation, database access, exam scoring, networking, training sessions, and video and classroom support. The ATN Technical Assistance Center (TAC) serves students, faculty, and staff by providing computing support for them. You may contact the TAC by e-mail at help@unc.edu, by WWW at http://help.unc.edu/, or by telephone at 962-5261.

Electronic mail (e-mail) allows computer users to send each other text messages electronically. All enrolled students at UNC-Chapel Hill are eligible for a UserID account that can be used for e-mail and other services. Each student, for example, can have a personal WWW page on a machine sponsored by ATN. A student may create a UserID account at ATN's home page, http://help.unc.edu/, by clicking on the Create an ATN UserID link and following the instructions. Please note that it is unnecessary to go to a central location such as the TAC to create an account.

Students living in residence halls will have both hard-wired network connections to the Internet and cable television in their rooms by fall 1999.

We call this connectivity Residential Networking (ResNet). In January 1998, Craige, Ehrlinghaus, Hinton James, Morrison, Old East, and Old West residence halls were ResNet-ready. Other halls will become ResNet-ready as the campus network is extended to them. For up-to-date ResNet information see http://help.unc.edu/resnet/ or call 962-3510.

Off-campus students may want to consider one of the several Internet Service Providers (ISPs) operating in the area. For a monthly fee, these ISPs offer high-quality Internet access. The TAC has a list of local ISPs for you to consult.

ATN supports fifteen public microcomputer labs throughout campus. Labs have Windows and Macintosh computers as well as certain types of software for student use. ATN does support a UNIX lab as well. Additionally, all computer lab machines have Internet connections for checking your e-mail or accessing the WWW. There are also laser printers for your use in each lab. Lab hours vary according to use and location. Check the ATN Computer Labs home page at http://help.unc.edu/labs/ or call 962-4404 for information on lab locations and hours of operation.

ATN offers hands-on classes and short training sessions on a number of Windows and Macintosh software packages and utilities in its Training Center on the fourth floor of Hanes Hall. Topics include hard disk management, UNIX, word processing, spreadsheet, and presentation programs. For a schedule or more information, access ATN's home page at http://help.unc.edu/ and follow the Training Center link under Client Support or call 962-1160. A new online program, Computer-Based Training (CBT), makes it possible for you to learn a broad range of software at your own speed. Point your browser to http://help.unc.edu/cbt/ to learn more about this interactive program.
ATN makes SCOLA foreign language news broadcasts available 24 hours a day. Language majors use this service in their studies and international students enjoy hearing the news from home in their native language.

Physical Education facilities include Woolen and Fetzer gymnasiums; Carmichael Auditorium, indoor and outdoor pools, Finley Golf Course, Boshamer Baseball Stadium, Kenan Stadium, Koury Natatorium, and many athletic fields and tennis courts.

Physical education and athletics play an important role in undergraduate activity. Formal courses in physical education are required of freshmen. Varsity teams compete with those of comparable institutions and sometimes achieve national rankings. Intramural teams are numerous, and competition among residence halls, fraternities, and sororities is spirited.

PlayMakers Repertory Company is a full-season professional Equity theatre and a member of the League of Resident Theatres (a national association of nonprofit regional theatres) located on campus and associated with the Department of Dramatic Art. Each year guest professional directors, designers, and actors work with the resident company of faculty, artists, and students to produce six plays. The varied repertory includes a mix of classic and modern plays over a forty-week season.

Undergraduate students have the unique opportunity to work with resident and guest artists in every aspect of professional theatre: administration, stage management, box office, costumes, properties, set construction, lighting, sound, assistants to the directors, and acting (in appropriate roles). Auditions are held regularly for productions with PlayMakers Repertory Company.

The department also sponsors an undergraduate student production group called the Lab Theatre, a studio series. Undergraduate productions take place in the studio theatre (in Graham Memorial) and in Playmakers Theatre (on Cameron Avenue). The Lab Theatre produces twelve to fourteen shows a year, which are selected and produced by an elected board. Also, three additional undergraduate production programs have been initiated in the historic Playmakers Theatre, a 285-seat proscenium theatre. Studio I, led by student directors from the department, produces a season of four events with a theatre company comprised of undergraduate actors, directors, designers, and technicians. Studio II focuses on playwrights and provides a showcase for new student writing. Studio III is a faculty-directed production in the spring semester. Casting for all studios will be open to all registered UNC-Chapel Hill students.

WUNC (FM) has been licensed to The University of North Carolina at Chapel Hill since 1952. In 1976 the station was recognized as a full-service public radio station by the Corporation for Public Broadcasting and became a member of National Public Radio. WUNC operates as a noncommercial educational station, partially supported by listener contributions, with 100,000 watts of power at 91.5 FM. The station offers educational and cultural programming as a public service to the community and provides training opportunities for students under the direction of its professional staff.

WXYZC radio, at 89.3 FM, is licensed to the students of UNC-Chapel Hill and the Chapel Hill community. Founded in 1977, this alternative music station is run primarily by students, who make up almost eighty-five percent of the approximately 130 people involved in the station's operation. Block programming at WXYZC is limited, with an emphasis instead on an eclectic mix of musical offerings. One third of the music is less than two months old (including music from local bands), and the rest is drawn from the last fifty years, including rock, jazz, blues, reggae, and folk.

The emphasis is on variety and a balanced mix of the familiar, new, and unusual. DJs at the station are knowledgeable about the history of alternative music and about current directions. WXYZC is in Room 234 of the Frank Porter Graham Student Union.
Cultural and Religious Activities

Carolina's students, faculty, and staff participate in and attend a variety of cultural activities. Here is a sampling.

The Department of Music sponsors concerts on Tuesday evenings and Sunday afternoons and evenings that feature performances by faculty, guest artists, and student ensembles. General student recitals occur on Wednesdays at 4 p.m. and degree recitals are given by students throughout the year at different times.

Special events include the Annual Jazz Festival, Meet-the-Composer concerts, and lectures by visiting scholars. The Ensemble Courant, a professional ensemble that performs on original instruments, is based in the department and each year presents a subscription series on campus. Students are encouraged to participate in the department's many musical ensembles and activities.

The Department of English sponsors a year-long program of public lectures and readings by students, teachers, and local writers. There are frequent public lectures and readings by visiting scholars and writers. When new books are published by local writers, receptions, and autograph parties are held in the student bookstore.

The Carolina Symposium and the Fine Arts Festival, held in alternating years, provide extensive exploration of topics of interest to the University and the region. Distinguished speakers, panel discussions, and exhibitions are featured. The programs draw on both local and national resources, and are planned and presented by committees composed of students and faculty and sponsored by contributions from various student groups, student government, the University administration, and other sources.

The UNC Debate Program of the Department of Communication Studies is open to all undergraduate students interested in competition in intercollegiate debate. Students prepare to debate both sides of a policy resolution, which stays the same all year, and compete in pairs.

UNC-Chapel Hill Campus Ministers' Association

Baptist Campus Ministry
942-4266
203 Battle Lane
Rev. Robert Phillips

Catholic (Newman Center) Campus Ministry
929-3730
218 Pittsboro Street
Sister Margaret Harig

Episcopal Campus Ministry
929-2193
304 East Franklin Street
Rev. Stephen Stanley

Lutheran Campus Ministry
942-2677
30 East Rosemary Street
Rev. Larry Hartsell

North Carolina Hillel (Jewish)
942-4057
210 West Cameron Avenue
Rabbi Edward Elkin

Presbyterian Campus Ministry
967-2311
P.O. Box 509
Rev. Ollie Wagner

Wesley Foundation/United Methodist Campus Ministry
942-2152
214 Pittsboro Street
Rev. Manuel Wortman

Evangelical Campus Ministries

Calvary Chapel
933-3996
2136 Old Oxford Road East
Chapel Hill, NC 27514
Michael Vuyecki

Campus Christian Fellowship
942-8952
P.O. Box 758
Chapel Hill, NC 27514
Rev. Frank Dodson

Campus Crusade for Christ
968-3693
602 Robert Hunt Drive
Carrboro, NC 27510
Hugh Jones

InterVarsity Christian Fellowship
967-4410
2216 Pathway Drive
Chapel Hill, NC 27516
Rich Henderson

Waymaker Fellowship
967-0796
700 Bolinwood Drive, Stratford Hills 40-D
Chapel Hill, NC 27514
Perry Burkholder
Finances and Financial Aid

Student Finances

Living Expenses

The estimated expenses for an academic year (two semesters) are approximately $9,475 for an in-state student and $18,611 for an out-of-state student. These expenses are listed separately below.

Tuition and fees are assessed on a semester basis and are due prior to registration. Students registering in Telephonic Registration Period I (TR I) will be mailed a bill at their grade/billing address prior to the beginning of that term. To avoid registration cancellation, tuition and fees plus all past charges must be paid or deferred by the due date on the bill. Students who are receiving financial aid and wish to defer these charges must complete the Tuition and Fees Deferment Form on the back of the bill, and send it to the University Cashier along with a payment for any unfunded balance by the due date on the bill. Students registering in Telephonic Registration Period II (TR II) must either pay tuition and fees or provide the University Cashier with documented eligibility of financial aid plus payment for any previous charges or unfunded tuition and fees prior to being cleared to register.

It is extremely important for students to obtain a copy of the Directory of Classes, published by the University Registrar prior to each semester or summer session, and follow instructions concerning payment/deferment due dates to avoid registration cancellation. If the student’s grade/billing address is that of a parent, the student should notify the parent of the importance of the due date on the bill and that a registration cancellation will occur if either the full payment or the deferment and payment for any unfunded balance are not received on time.

Payments may be made in person, by mail, or by telephone. To avoid the inconvenience of standing in line to make a payment, please mail your check (payable to The University of North Carolina at Chapel Hill) to the University Cashier, CB# 1400, 103 Bynum Hall, Chapel Hill, NC 27599-1400. Show your full name and student ID number on all payments. You may also pay by telephone (919) 962-8621 with a MasterCard or VISA card. Any refunds of payments made by MasterCard or VISA are issued ONLY via credits to the original card account and not by cash/check to the individual. Students receiving financial aid should pay only the difference between the expected aid amount and the total charges via MasterCard or VISA. The University does not release an official transcript unless tuition, fees, and other obligations due the University have been paid.

The estimated expenses for an undergraduate student for an academic year include:

<table>
<thead>
<tr>
<th></th>
<th>N.C. Resident</th>
<th>Non-resident</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tuition</td>
<td>$1,428.00</td>
<td>$10,414.00</td>
</tr>
<tr>
<td>Fees</td>
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<td>$797.00</td>
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<tr>
<td>Books and Supplies</td>
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<tr>
<td>Residence Hall Room Rent</td>
<td>$2,400.00</td>
<td>$2,400.00</td>
</tr>
<tr>
<td>(Average double room)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Meals</td>
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<td>$2,600.00</td>
</tr>
<tr>
<td>Personal Expenses</td>
<td>$1,650.00</td>
<td>$1,800.00</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>$9,475.00</strong></td>
<td><strong>$18,611.00</strong></td>
</tr>
</tbody>
</table>

Mandatory Student Fees include Student Health Service, Athletic Association, A.P.P.L.E.S. Program, Carolina Course Review, Intramural Recreation Program, Safety and Security, Student Body Scholarship, Student Endowment Library Fund, Student Government, Student Legal Services, Student Rec Center Operating Expense, Student Union Operating Expense, Undergraduate Teaching Award, Student Union Building Debt Retirement, Student Recreation Center Debt Retirement, Student Services Facility Debt Retirement, Telephonic Registration, Transit Fee, and an Educational and Technology Fee. All new students are required to pay an Orientation Fee (Freshmen $35.00, Senior Transfer Students $22.00) and an ID Card Fee ($5.00) for their initial semester. In addition to these fees, special lab and designated program fees also may be charged. The Returned Check Fee is $20.00 and the Late Registration Fee is $10.00.

Students who are over age sixty-five and are North Carolina residents may qualify for waiver of their tuition and fees. Students must complete and then submit a “Request for Waiver of Tuition and Fees for Senior Citizens” to the University Cashier.

Each student is responsible for payment of his or her University charges. If someone other than the student is responsible for paying the charges, the University Cashier should be notified well in advance so that a bill may be sent to the proper person or agency in order that payments can be made when due.
Students who are expecting to receive financial aid or scholarship funds should bring with them sufficient funds (cash or traveler’s checks) to take care of living expenses for approximately fifteen days. This should provide sufficient time for financial aid or scholarship funds to be made available.

The last day to reduce a course load for credit on a student’s financial account is two weeks from the first day of classes for each semester. Dropping the only course requires official withdrawal.

In case of withdrawal from the University, tuition and fees will be prorated over a period of nine weeks at a rate of one-tenth of the semester’s charges after deduction of a $25.00 administrative charge from tuition and a $5.50 telephonic registration charge from fees. The last date for credit on a student’s financial account for withdrawal is nine weeks after the first day of classes.

Scholarships and Financial Aid

The University of North Carolina at Chapel Hill has a long-standing commitment to assure that qualified students have the opportunity to study at the University, regardless of their ability to pay the full costs of attendance. Tuition at UNC-Chapel Hill is lower than at most other major universities, and an education at the University is an outstanding value.

To help students meet their costs, the University provides through the Office of Scholarships and Student Aid a comprehensive program of financial aid. Scholarships, grants, loans, and job opportunities are awarded to meet the difference between the costs of attendance and the amount the student and family should be able to pay toward expenses. There are also loan programs open to all students, regardless of financial circumstances. A limited number of academic scholarships are awarded to entering freshmen with exceptional academic ability.

The Office of Scholarships and Student Aid awards and administers more than $78 million in financial aid to more than 11,000 students. Scholarships and financial aid funds come from federal, state, University, and private sources. Awards are made according to procedures established by donors and agencies and to policies developed by the University Committee on Scholarships, Awards, and Student Aid.

Eligibility for Need-Based Financial Aid

To receive financial aid from programs administered by the Office of Scholarships and Student Aid, a student must be enrolled at least half-time and be making satisfactory progress toward the completion of a degree or certificate from the University. The student may not be in default on a loan previously received for college expenses nor owe a refund on a scholarship, grant, or loan from an earlier enrollment period. In addition, the student must establish by information reported on the application form that the financial resources of the student and family are not sufficient to meet the costs of attending the University.

Federal Aid Programs: To measure eligibility for federal student aid funds, the financial circumstances of the student and family will be reviewed according to a methodology established by the U.S. Congress. The standard need analysis takes into consideration the income and assets of the student and family, the number of persons in the household and the number in college, taxes paid, and other relevant factors. The guidelines expect the student to contribute to costs with earnings during the summer and/or school year, based on the amount earned by the student during the previous year. Scholarships and other awards from private sources are also considered in determining eligibility for federal funds.

University Scholarships and Grants: Undergraduate students are considered for scholarships and grants based on an analysis of family financial circumstances according to a methodology used by many colleges and universities to award institutional funds. The home equity of the family is reviewed, as well as other income and assets which may not have been treated in the calculation of federal aid eligibility. A student is expected to contribute to educational costs, regardless of income earned during a previous year. The amount of eligibility for University scholarships and grants is usually less than federal aid eligibility, but scholarship and grant funds are often combined with federal aid to provide a total package of assistance. In awarding University scholarships and grants, the Office of Scholarships and Student Aid will consider the student’s characteristics and match the student with funds for which he or she may be uniquely qualified. Specific criteria may include academic achievement, home county or state, and leadership experiences.

Applying for Need-Based Aid

The application process for need-based scholarships and financial aid requires careful completion of appropriate forms, attention to deadlines, and prompt response if additional information is requested. Financial aid funds are limited, and the most beneficial types of aid—including University scholarships, campus jobs, and lower-interest loans—are awarded first to students whose files are completed accurately and on time.

Preference Deadline: The Office of Scholarships and Student Aid gives priority for financial aid to students who submit the necessary forms to be received by the processing agencies by March 1 prior to a summer or academic year enrollment. An entering student should not wait for a notification of admission but should file the necessary forms by the priority date, even if he or she has not decided which college to attend. Returning students should also meet the March 1 priority filing date. Timing of financial aid award notices is dependent on the application filing date, and only those students who apply by March 1 can expect to have funds delivered at the beginning of the school year. Late applications will be considered as time and resources permit.
Application Forms

All students—undergraduate, graduate, and professional—who apply for need-based financial aid through the Office of Scholarships and Student Aid must complete the Free Application for Federal Student Aid (FAFSA). The form collects basic information about the financial circumstances of the student and family so that eligibility for federal aid programs can be determined. The FAFSA may be obtained from high school counselors and college financial aid offices and in person at the UNC Office of Scholarships and Student Aid. (The FAFSA can be mailed to a student from the Office of Scholarships and Student Aid if the form is not available in the student’s local area. The student should allow two to three weeks for delivery.) There is no fee for processing the FAFSA, and it must be sent to the federal processing agency with the UNC-Chapel Hill code number 002974 listed in the appropriate section. Students who applied for federal student aid in the previous year may receive a Renewal Application directly from the Department of Education, and the renewal form may be used in place of the FAFSA. The form is preprinted with data reported by the student in the previous year, and the current year’s data must be edited and updated. The student must check that information is to be sent to UNC-Chapel Hill, code number 002974.

Undergraduate students must also complete the PROFILE Application of the College Scholarship Service (CSS) in order to be considered for University scholarships and grants. An entering student may register for PROFILE by calling toll-free 1-800-778-6888 between 8:00 a.m. and midnight or by connecting on the Internet to College Board Online at www.collegeboard.org. About a week after registering, each student will receive from CSS a PROFILE Application packet, customized for the schools the student may be considering. A returning undergraduate student may register for the PROFILE Application by either of these methods or may obtain the PROFILE Renewal Application from the Office of Scholarships and Student Aid. The PROFILE form should be completed by the student and family and mailed—preferably by February 15—to be received by the processing agency no later than March 1. There is a processing fee, which must be paid by credit card or sent to CSS when the form is mailed.

Financial Aid Transcript (FAT)

UNC-Chapel Hill must have information about financial aid from other colleges and universities a student may have attended, including whether the student is in default on a federal loan or owes a refund to a federal grant. For most applicants, this information is available to UNC-Chapel Hill through a national database. However, if the information is incomplete, the Office of Scholarships and Student Aid will notify the student that a Financial Aid Transcript must be completed by the financial aid office at each previous school. If the FAT is needed, a copy of the form will be sent to the student to be forwarded to previous schools.

Award Decisions

An entering undergraduate student who files an application for financial aid by the March 1 priority date and provides any requested additional information promptly can expect to receive an award decision in mid-April. Returning undergraduate students who meet the March 1 filing date are usually notified in early July. Both entering and returning graduate and professional students are usually informed of aid decisions in July if applications are filed by March 1. Students who do not meet the March 1 preference deadline cannot be assured of award notifications nor of the delivery of funds until after the beginning of the enrollment period.

Types of Need-Based Financial Aid

Financial aid at UNC-Chapel Hill consists of scholarships, grants, loans, and jobs, awarded singly or in combination to meet a student’s financial aid eligibility. When a student applies for need-based aid, he or she will be considered for all types of assistance for which he or she is eligible, including scholarships for undergraduates. The student does not need to indicate an interest in specific scholarships nor a preference for gift funds. The award will include as much scholarship or grant as resources will permit. Remaining aid eligibility for undergraduate students will usually be met by the offer of a loan, a part-time job, or both. Graduate and professional students will receive loans and/or work to meet any eligibility remaining after awards from schools or departments.

General Scholarships

University scholarships are awarded by the Office of Scholarships and Student Aid to undergraduate students who complete both the FAFSA and the PROFILE Application and who have financial aid eligibility and above-average academic records. Some general scholarships are supported by state appropriations and special sources, such as income from Student Stores and from trademark royalties. Other awards are made possible by gifts to the University from its benefactors. General scholarship awards range in value from $100 to $2,500 per year, depending upon the student’s eligibility and academic achievement and on the availability of funds.

Special Scholarships

The Office of Scholarships and Student Aid administers several competitive scholarship programs to recognize and encourage academic excellence. An award will meet a student’s financial aid eligibility according to the methodology for University scholarships. If a recipient has federal financial aid eligibility beyond the amount of the scholarship, the student may receive additional assistance from federal student aid programs. A separate scholarship application is not required; students who apply by March 1 for need-based aid and for University scholarships will be considered.

The James M. Johnston Awards are the most attractive need-based scholarships offered by the University. Every year, approximately sixty-five entering freshmen are chosen.
to be Johnston Scholars, based on outstanding high school records and leadership potential. The Johnston Awards Program seeks to develop for scholars a sense of community within the University. Special programs are offered to enrich educational experiences and expand personal development, including faculty mentors, peer counselors, leadership activities, and Johnston Honors Seminars. A number of Johnston Awards are made to students in the School of Nursing.

Other Distinguished Scholarships awarded to entering freshmen who apply by March 1 include the Josephus Daniels, Mark R. Braswell, Fred W. Morrison, Herbert D. and Mayme C. Pegg, Caroline and Thomas Royster, and William A. Whitaker Scholarships. Distinguished Scholarships are awarded on the basis of academic achievement and financial need.

Grants

Undergraduate students who apply for need-based financial aid will be considered for grant assistance to meet a portion of financial aid eligibility. Awards are made to students with exceptional financial need from the Federal Supplemental Educational Opportunity Grant Program and from University funds. These awards may range in value from $100 to $2,500, depending upon the student’s financial circumstances.

All students—undergraduate, graduate, and professional—who are awarded need-based financial aid will receive tuition grants up to $400 as a partial offset to recent tuition increases. This grant program was authorized by the Board of Trustees and is supported by income derived from the tuition increase established in 1996.

The Federal Pell Grant Program provides assistance to eligible first-degree undergraduate students. These awards are targeted to the most needy students, and eligibility is measured by a formula approved by the U.S. Congress. A Pell Grant award for an eligible student will be included as part of his or her financial aid package.

Minority Presence Grant Program

The University of North Carolina offers a two-part program to minority students.

Part I provides funds for grants to white students at predominantly African-American institutions and to African-American students at predominately white institutions. Students must be residents of North Carolina who are enrolled for at least three hours of degree credit course work and demonstrate financial need.

Part II provides funds for grants to Native Americans and other minority students at the constituent institutions of the University of North Carolina. Grant recipients must be residents of North Carolina who are enrolled for at least three hours of degree credit course work and demonstrate financial need.

Need-Based Loans

The Office of Scholarships and Student Aid administers a number of student loan programs, both federal and institutional, which provide low-interest, long-term loans to undergraduate, graduate, and professional students who have financial aid eligibility under federal guidelines. Most financial aid packages to undergraduate students include assistance from one or more loan programs, and the majority of aid to graduate and professional students is from loan sources. Students are encouraged to borrow as little as possible in order to limit the repayment burden. The Office of Scholarships and Student Aid determines which loan source is most appropriate for the student, based on the funds available at the time an award is made. All loans require the execution of a promissory note, and the borrower must agree to repay the loan on a regular monthly basis after he or she leaves the University.

The Federal Perkins Loan Program is supported by federal allocations and by loan repayments from previous borrowers. There is no interest while the student is in school, and repayment at five percent begins six to nine months after termination of student status. The program calls for deferment of payments under certain circumstances and for partial cancellation of the loan if the borrower is fulfilling specific teaching or military service.

The Office of Scholarships and Student Aid may recommend a Subsidized Federal Stafford Loan as part of a student’s financial aid award. Loans are available from the College Foundation, North Carolina’s primary lender, and from other state or national lending agencies. If a student is recommended for a Subsidized Stafford Loan, he or she will be sent information from the Office of Scholarships and Student Aid about completing the application process with an appropriate lender. The student will be charged origination and insurance fees of up to three percent, to be deducted from each loan disbursement. Interest of not more than 8.25 percent usually begins after a borrower terminates student status. The student must sign a promissory note with the lender, agreeing to repay the loan after enrollment and deferment periods are over.

Students in certain medical and allied health programs at the University may be eligible for loans from the Health Professions Student Loan Program. Interest rates are comparable to those for other loan assistance, and repayment begins after termination of student status or completion of deferment periods.

Employment

Many students work in part-time jobs, on and off campus, to meet a portion of their University expenses. Employment can provide not only a source of income, but also valuable work experience.

Funds are provided by the federal government and matched by the state for Federal Work-Study Program jobs in many University departments and offices and in community service agencies. A Work-Study job may be included as part of a financial aid package. Undergraduate students are employed in hourly paid jobs that require ten to fifteen hours per week and that pay more than the federal minimum wage. Students who remain in the same Work-Study job from year to year will receive an annual increase in the
wage rate. Graduate students may be assigned Work-Study Assistantships, with teaching and research responsibilities in their major departments or schools. Students are given the opportunity to select from a variety of Work-Study jobs to meet their skills, interests, and career plans.

Non-Need-Based Loans

Students who do not meet eligibility requirements for need-based aid, or who must have funds in addition to need-based aid, may apply for federal loans that are not based on the financial circumstances of the student and family. Students may borrow from the Unsubsidized Federal Stafford Loan Program, up to the amount of annual eligibility for Stafford Loans but not to exceed the difference between costs of attending the University and other financial aid awards. Annual loan limits for dependent undergraduate students from the Subsidized and Unsubsidized Stafford Loan Programs combined are: $2,625 for freshmen, $3,500 for sophomores, $5,500 for juniors, seniors, and fifth-year students. Independent undergraduate students may borrow up to $6,625 for the first year, $7,500 for the second year, and $10,500 for the third and subsequent years. Graduate and professional students may receive up to $18,500 per year. Borrowers are responsible for interest payments of not more than 8.25 percent during in-school and deferment periods. Unsubsidized Stafford Loans have origination and insurance fees of up to three percent, deducted proportionately from each loan disbursement. Just as with Subsidized Federal Stafford Loans, there are lending agencies in each state; the College Foundation is the primary lender in North Carolina. Students who wish to be considered for Unsubsidized Stafford Loans, either as the only aid source or in addition to need-based aid, should contact the Office of Scholarships and Student Aid for information.

The parents of undergraduate students who do not receive need-based aid, or who must have additional assistance, may apply for Federal PLUS Loans. These loans, like Stafford Loans, are made by lenders in each of the states, including the College Foundation in North Carolina. A parent with a good credit history may borrow up to the difference between costs of attending the University and any other assistance the student may be receiving. A parent who is interested in the PLUS Loan Program should obtain an application form from the lender of choice and submit the application to the Office of Scholarships and Student Aid for certification. The interest rate on PLUS Loans varies up to twelve percent; origination and insurance fees of up to three percent are charged. Repayment generally begins within sixty days after disbursement of the loan.

Academic Scholarships

The University offers special academic scholarships each year to a select group of entering freshmen. These competitive scholarship programs recognize and encourage academic excellence and provide unique opportunities to enrich educational experiences at the University. Criteria for the awards include academic achievement, leadership qualities, commitment to service, and potential for success at the University. The financial circumstances of the student and family are not considered.

Approximately seventy-five new scholarships are awarded each year to the most exceptional students in a freshman class of 3,300. A separate Academic Scholarship Application is required. Students may obtain the form from the Office of Scholarships and Student Aid. The completed application is due by December 15, and preference is given to students who apply for admission by the November 15 admissions deadline. Award decisions are made in the early spring.

The Carolina Scholars Program is a comprehensive academic scholarship program designed to attract entering freshmen with superior academic achievement, evidence of self-direction and intellectual curiosity, and a genuine motivation for learning. Carolina Scholars awards provide $5,000 per year for students from North Carolina and $10,000 for students from other states.

The Joseph E. Pogue Scholarships were established to attract the most outstanding North Carolina students to the University, with special emphasis on minority applicants. However, students from all ethnic backgrounds are considered for these awards. The Pogue Scholarships seek to recognize students who demonstrate and value academic achievement, exhibit strong leadership potential, and eagerly identify ways to implement positive change. The scholarships provide $6,750 per year.

Other Academic Scholarships are awarded to students from North Carolina and a limited number from out-of-state, based on academic achievement, leadership, and special characteristics. The scholarship stipends range from $2,500 to $5,000 per year for North Carolina students and $10,000 for students from other states. Included among other academic scholarships are the College Fellows, Herbert W. Jackson, William R. Davie, Chewing-Wells, James R. Copland Jr., Cameron Morrison, and Julian H. Robertson Jr. Scholarships.

Morehead Awards are given by the John Motley Morehead Foundation (a private foundation established in 1945) to approximately sixty incoming freshmen each year. Scholarships are designed to cover the full cost of four years of undergraduate study at the University. A student may not apply for a Morehead Award, but must attend a school eligible to participate in the Morehead Program and be nominated by that school to compete for the scholarship.

The Morehead selection committee chooses scholars on the basis of scholarship, leadership, character, and physical vigor. In addition to receiving an academic stipend, Morehead Scholars receive grants to participate in the Morehead Foundation's Summer Enrichment Program. For more information, please link to www.unc.edu/depts/morehead.
Information and Instructions

Students who are interested in applying for need-based financial aid, for non-need-based loans, and/or for academic scholarships may obtain additional information from the Office of Scholarships and Student Aid, The University of North Carolina at Chapel Hill, 300 Vance Hall, P.O. Box 1080, Chapel Hill, N.C. 27514.

Additional information about scholarships and financial aid, including helpful links to related University departments and financial aid services external to the University, is available on the Internet from the home page of the Office of Scholarships and Student Aid, studentaid.unc.edu.
UNC-Chapel Hill Regulations and Policies

The personal conduct of the University student is subject to the moral and legal restraints found in any law-abiding community. Additionally, the Honor Code and the Campus Code are positive forces for good citizenship, not exemptions from its sterner responsibilities. University regulations therefore are not specifications for acceptable conduct or detailed lists of offenses subject to penal action. They are intended to provide an informational basis for systematic procedures and equitable decisions in many situations involving individual students and officers of the University.

Code of The University of North Carolina (1975)

Section 502D(3)–Subject to any policies or regulations of the Board of Governors or the Board of Trustees, it shall be the duty of the Chancellor to exercise full authority in the regulation of student affairs and in matters of student discipline in the institution. In the discharge of this duty, delegation of such authority may be made by the Chancellor to faculty committees and to administrative or other officers of the institution, or to agencies of student government, in such manner and to such extent as may by the Chancellor be deemed necessary and expedient. In the discharge of his duty with respect to matters of student discipline, it shall be the duty of the Chancellor to secure to every student the right of due process and fair hearing, the presumption of innocence until found guilty, the right to know the evidence and to face witnesses testifying against him, and the right to such advice and assistance in his own defense as may be allowable under the regulations of the institution as approved by the Chancellor. In those instances where the denial of any of these rights is alleged, it shall be the duty of the President to review the proceedings.

Alcoholic Beverages

The University’s Policy on Student Possession and Consumption of Alcoholic Beverages in Facilities of The University of North Carolina at Chapel Hill sets forth the conditions under which alcoholic beverages use consistent with Federal, State, and local laws and ordinances is permitted in University facilities and on University property.

According to North Carolina law:

Generally persons twenty-one or older may purchase or consume alcoholic beverages and may possess alcoholic beverages at their homes or temporary residences.

It is against the law for any person under twenty-one to purchase or possess any alcoholic beverage.

It is against the law for anyone to sell or give any alcoholic beverage to a person under twenty-one or to aid or abet such a person in selling, purchasing, or possessing any alcoholic beverage.

No alcoholic beverages may be sold by any person, organization, or corporation on a college campus except by a hotel or nonprofit alumni organization with a mixed beverages or special occasion permit. Both direct and indirect sales are unlawful.

According to Chapel Hill ordinance, it is against the law for anyone to possess any open alcoholic beverage on streets, sidewalks, alleys, or any other property owned or controlled by the Town of Chapel Hill.

In addition to following the law, the University’s Policy on Student Possession and Consumption of Alcoholic Beverages in Facilities of The University of North Carolina at Chapel Hill sets out special rules about alcohol for students and student organizations. The Office of the Dean of Students will provide copies of the policy and assistance in understanding its full implications. The text of the policy can also be found in the Campus Security Policies notebook on reserve at the Undergraduate, Law, and Health Sciences libraries, and can be accessed on the World Wide Web at the following address: <http://www.unc.edu/student/policies/alcohol.html>.

Under the policy:

Alcohol may not be served or consumed in any University building or open space except as provided in the University’s Guidelines for Serving Alcohol at University-Sponsored Events.

Alcohol may not be possessed or consumed at any campus athletic event or at any performance on campus, and alcohol may not be consumed at any outdoor campus location.

Common source containers of alcohol (e.g., kegs) are not permitted on campus.

Students and their guests aged twenty-one and older may possess and consume alcoholic beverages in individual campus residence hall rooms or apartments on campus, but not in the common areas of a campus residence hall.

No Student Activity Fees or other University-collected fees may be used to purchase alcohol.

No other funds of an officially recognized student group deposited or administered through the Student Activities
Fund Office may be used to purchase alcohol.

Student groups are not prohibited from having events off campus at which individual group members aged twenty-one or older bring or buy their own alcoholic beverages.

Students who violate the policy face mandatory alcohol education, housing sanctions (for violations arising in University Housing), and sanctions including written reprimand, restitution, counseling/referral, and/or educational/community service activities. Student groups who violate the policy face sanctions of written reprimand, restitution, mandatory educational programs or community service, and/or loss of University recognition. Behavior that violates the Code of Student Conduct, state or federal laws may also be referred to the Student Judicial System, the Emergency Admissions and Disciplinary Evaluation Committee, and/or state and federal authorities.

Emergency Disciplinary Action

The responsibility for assuring reasonably safe conditions on campus occasionally requires that emergency action be taken to separate a student from the University, in order to protect University property or members of the University community or to prevent disruption of the academic process. The Chancellor has, therefore, created the Emergency Admissions and Disciplinary Evaluation Committee. The committee acts, with respect to disciplinary matters, only when no other administrative solution, including action by the Student Judicial System, is in its judgment adequate to deal effectively with the situation.

Students whose cases may require action by the committee fall into four categories:

A. Applicants for admission or readmission to the University who have been convicted of a crime involving assaultive or felonious behavior, who have a record of violent behavior, or who have a record of academic dishonesty or disciplinary rule violations elsewhere;

B. Students whose behavior, on or off campus, is such that their presence in the University, in the judgment of the committee, poses
   1. a continuing danger to themselves or to other members of the University community, OR
   2. a continuing danger to University property, OR
   3. a serious threat of disruption of the academic process;

C. Students who have been arrested and charged with a serious crime
   1. of a violent nature, OR
   2. of a dangerous nature, OR
   3. which involved placing another person in fear of imminent physical injury or danger such that, if the student is found guilty, his presence in the University, in the judgment of the Committee, would pose

1. a continuing danger to the student or to other members of the University community, OR
2. a continuing danger to University property, OR
3. a serious threat of disruption of the academic process.

D. Students, charged by the University with a violation of policies concerning illegal drugs, whose continued presence within the University community would, if the charges are true, constitute a clear and immediate danger to the health or welfare of other members of the University community.

Full information on the committee and its procedures is available from the Division of Student Affairs through the office of the Dean of Students.

Transportation and Parking

Parking

Every student at UNC-Chapel Hill and UNC Hospitals who parks an automobile between 7:30 a.m. and 5 p.m. on weekdays in the University’s designated reserved parking is required by the Department of Transportation and Parking to obtain and display a parking permit. Parking permit holders must park only in specific zones as indicated on their parking permits. After 5 p.m. on weekdays, however, students may park in any unreserved space except those in resident student lots, which are reserved until 9 p.m.

Motor vehicle parking permits may be applied for during normal registration procedures at the Department of Transportation and Parking. Vehicles found parked illegally may be cited by Parking Enforcement, and subsequent violations may result in further citations, immobilization (“booting”), or towing of the vehicle. Citations may be appealed through the Department of Transportation and Parking’s Appeals Office. Appeals also can be entered by telephone by calling the Appeals Office at 962-3953, Monday through Thursday from 7:30 a.m. to 7:30 p.m. and Fridays until 5 p.m.

The Parking Enforcement Division operates a Motorist Assistance Program (M.A.P.), offering jump starts or lockout key retrieval to any vehicle on campus. M.A.P. may be contacted at the Parking Enforcement Office at 962-8006 between 7 a.m. and 9 p.m. or by calling Campus Police at 962-8600 between 9 p.m. and 7 a.m.

Alternatives to Parking

The UNC-Chapel Hill Department of Transportation and Parking sponsors many programs offering viable alternatives to parking on campus, such as:

- U.N.C.-C.A.R.–University of North Carolina Campus Area Ridesharing matches services to university students and personnel who wish to carpool or vanpool.
- U.N.C. Bicycle Registration–The Department of Transportation and Parking offers a bicycle registration program for bicycles stored or traveling on campus. The program serves as a deterrent to crime, aids in the identification
of lost or stolen bicycles, and enables the department to better plan for improved bicycle parking facilities around campus in the future.

Chapel Hill Transit and Park and Ride-Chapel Hill Transit bus passes (unlimited town-ride, unlimited campus-ride, or forty-town/eighty-campus ride) may be purchased at the Department of Transportation and Parking or at the UNC-Chapel Hill Student Stores.

For More Information
Visit the Department of Transportation and Parking during regular business hours (weekdays, 7:30 a.m.-5 p.m.), in the Security Services Building on Morrison Drive (just off Manning Drive) on south campus. Concerns may be addressed at the following campus telephone numbers:

- General Information - 962-3951, 3952
- Enforcement - 962-8006
- Accounts Receivable - 962-3097
- Appeals - 962-3953
- Registration - 962-3951, 3952
- Special Event/Conference Pkg. - 962-7144
- Pay Operations Pkg. - 966-1036
- U.N.C.-C.A.R. (Ridesharing) - 962-1501

Students with temporary physical handicaps or other hardships requiring special consideration must contact the Department of Disability Services.

Change of Address
Students are required to keep the Office of Records and Registration advised at all times of their current local and home address. If their addresses (where they sleep) change, they must report this change on a Report of Address Change form that is available at the Registrar's Office, 105 Hanes Hall.

Responsibility for Mail List Use
In their programs and activities, recognized student organizations represent their own views and actions and not necessarily those of the University. They do not represent the University in any official way.

Upon request, address lists of currently enrolled students are provided at cost by the University to recognized student organizations. The University assumes no responsibility for the manner in which mail lists of its students are used by a recognized student organization, or for any purpose or product furthered or advertised thereby.

Commercial Activities
Selling or soliciting by any person (private citizen or student), firm, or corporation on the campus of the University is prohibited except as provided for in the University Facilities Use Policy.

Conduct in and Use of Residence Halls

Regulations governing conduct in and use of the halls are listed in the Housing Department’s Community Living Booklet. It is expected that every student in his or her conduct and activities will have consideration for the rights and comfort of others.

Drug Policy

Students, faculty members, administrators, and other employees of the University of North Carolina at Chapel Hill are responsible, as citizens, for knowing about and complying with the provisions of North Carolina law that make it a crime to possess, sell, deliver, or manufacture those drugs designated collectively as "controlled substances" in Article 5 of Chapter 90 of the North Carolina General Statutes. Any member of the University community who violates that law is subject both to prosecution and punishment by the civil authorities and to disciplinary proceedings by the University.

Also, recent federal legislation requires, as a condition of employment, that any faculty or staff member engaged in the performance of a federal grant or contract must abide by the University’s Drug Policy and must notify his or her dean, director, or department chair of any criminal drug statute conviction for a violation occurring in the work place not later than five days after the conviction.

Disciplinary proceedings against a student, faculty member, administrator, or other employee will be initiated when the alleged conduct is deemed to affect the University’s interests. Penalties will be imposed for violation of the policies of the University only in accordance with procedural safeguards applicable to disciplinary actions against students, faculty members, administrators, and other employees. The penalties that may be imposed range from written warnings with probationary status to expulsions from enrollment and discharges from employment.

Every student, faculty member, administrator, and other employee of the University is responsible for being familiar with and complying with the terms of the Policy on Illegal Drugs adopted by the Board of Trustees.

Refer to the appendix of this publication for the entire Policy on Illegal Drugs. Copies of the full text of that policy are available from your dean, director, or department chair, or from the Office of the Dean of Students or the Employee Relations Division of the University Personnel Department. The drug policy for students is contained in The Instrument of Student Judicial Governance.

Smoking Ban

Students and faculty at UNC-Chapel Hill are expected to refrain from smoking in classrooms. Smoking in classrooms was banned by a student referendum and Faculty Council action in fall 1975. In addition, smoking in all residence halls is limited to personal rooms only.
Visitation Policy in Residence Halls

Regulations concerning visitation are applicable only to University-owned and approved residence halls. In those living areas, students are permitted to visit in the rooms of members of the opposite sex in accordance with the visitation policy published by the Housing Department.

Within the parameters of the guest policy, there are three visitation options within University Housing. The housing contract allows you to check if there is a visitation option to which an individual does not wish to be assigned. The three visitation options include:

**Standard Visitation**
Sunday - Thursday 9:00 a.m. - 1:00 a.m.
(with roommate consent)
Friday and Saturday 9:00 a.m. - 2:00 a.m.
(with roommate consent)

**Extended Weekend Visitation**
Sunday - Thursday 9:00 a.m. - 1:00 a.m.
(with roommate consent)
Friday and Saturday 24-hour visitation
(with roommate consent)

**Full Visitation**
Any day of the week 24-hour visitation
(with roommate consent)

Currently, fifteen of the twenty-nine residence halls have a 24-hour visitation policy.

A “quiet hours” rule shall be in effect from 9:00 p.m. until 9:00 a.m.

Members of each hall should conduct themselves in a manner that shows respect for the rights of other members of the University community and residents of University housing.
The University of North Carolina
Sixteen Constituent Institutions

General Administration
Molly C. Broad, B.A., M.A., President
Roy Carroll, B.A., M.A., Ph.D., Senior Vice President and Vice
President for Academic Affairs
Gary Barnes, B.A., M.S., Ph.D., Vice President for Program
Assessment and Public Service
Charles Coble, A.A., A.B., M.A.T., Ed.D., Vice President for
University-School Programs
Rosalind Fuse-Hall, B.S., J.D., Secretary of the University
William O. McCoy, B.S., M.S., Vice President for Finance
Judith P. Pulley, B.A., Ph.D., Vice President for Planning
Richard H. Robinson Jr., A.B., L.L.B., Assistant to the President
J.B. Milliken, B.A., J.D., Vice President for Public Affairs

History of the University
In North Carolina, all the public educational institutions
that grant baccalaureate degrees are part of The University
of North Carolina. The University of North Carolina at
Chapel Hill is one of sixteen constituent institutions of the
multicampus state university.

The University of North Carolina, chartered by the North
Carolina General Assembly in 1789, was the first public uni-
versity in the United States to open its doors and the only
one to graduate students in the eighteenth century. The first
class was admitted in Chapel Hill in 1795. For the next 136
years, the only campus of The University of North Carolina
was at Chapel Hill.

In 1877 the North Carolina General Assembly began
sponsoring additional institutions of higher education,
diverse in origin and purpose. Five were historically Black
institutions, and another was founded to educate American
Indians. Several were created to prepare teachers for the
public schools. Others had a technological emphasis. One is
a training school for performing artists.

In 1931 the North Carolina General Assembly redifined
The University of North Carolina to include three state-supported
institutions: the campus at Chapel Hill (now The
University of North Carolina at Chapel Hill), North Carolina
State College of Agriculture and Engineering at Raleigh
(now North Carolina State University at Raleigh), and the
North Carolina College for Women (Women’s College) at
Greensboro (now The University of North Carolina at
Greensboro). The new multicampus University operated
with one board of trustees and one president. By 1969, three
additional campuses had joined the University through

legislative action: The University of North Carolina at
Charlotte, The University of North Carolina at Asheville,
and The University of North Carolina at Wilmington.

In 1971 the General Assembly passed legislation bringing
into The University of North Carolina the state’s ten remain-
ing public senior institutions, each of which had until then
been legally separate: Appalachian State University, East
Carolina University, Elizabeth City State University,
Fayetteville State University, North Carolina Agricultural
and Technical State University, North Carolina Central
University, North Carolina School of the Arts, Pembroke
State University, Western Carolina University, and Winston-
Salem State University. This action created the current six-
teen-campus University. (In 1985 the North Carolina School
of Science and Mathematics, a residential high school for
gifted students, was declared an affiliated school of the
University.)

The UNC Board of Governors is the policy-making body
legally charged with “the general determination, control,
supervision, management, and governance of all affairs of
the constituent institutions.” It elects the president, who
administers the University. The thirty-two voting members
of the board are elected by the General Assembly for four-
year terms. Former board chairmen and board members
who are former governors of North Carolina may continue
to serve for limited periods as nonvoting members emeriti.
The president of the UNC Association of Student
Governments, or that student’s designee, is also a nonvoting
member.

Each of the sixteen constituent institutions is headed by a
chancellor, who is chosen by the Board of Governors on the
president’s nomination and is responsible to the president.
Each institution has a board of trustees, consisting of eight
members elected by the Board of Governors, four appointed
by the governor, and the president of the student body, who
serves ex officio. (The North Carolina School of the Arts has
two additional ex officio members.) Each board of trustees
holds extensive powers over academic and other operations
of its institution on delegation from the Board of Governors.
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The University of North Carolina

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Appendix

Residence Status for Tuition Purposes

The information in this section comes from three sources: (1) North Carolina General Statutes, § 116-143.1, (2) A Manual to Assist the Public Higher Education Institutions of North Carolina in the Matter of Student Residence Classification for Tuition Purposes, revised September 1985, (3) Chancellor’s Rules and Procedures for Residence Classification of Students for Tuition Purposes. The following sections summarize important aspects of the residency law. A complete explanation of the statute and the procedures under the statute is contained in A Manual to Assist the Public Higher Education Institutions of North Carolina in the Matter of Student Residence Classification for Tuition Purposes (hereafter referred to as “the manual”). This manual and other information concerning the application of this law are available for inspection in the Admissions Offices of the University. Copies of the manual are also on reserve at the Robert E. House Undergraduate Library and in the Reserve Reading Room of the Health Sciences Library. All students are responsible for knowing the contents of the statute and the manual.

Every applicant for admission is required to make a statement of his or her length of residence in North Carolina. A person who qualifies as a resident for tuition purposes under North Carolina law pays a lower rate of tuition than a nonresident. To qualify for in-state tuition, a legal resident must have been domiciled in North Carolina for at least twelve months immediately prior to the beginning of the term for which classification as a resident for tuition purposes is sought. The student must also establish that his or her presence in the state during such twelve-month period was for purposes of maintaining a bona fide domicile rather than for purposes of maintaining a mere temporary residence incident to enrollment in an institution of higher education. Domicile means one’s permanent home of indefinite duration, as distinguished from a temporary place of abode. Domicile is synonymous with legal residence and is established by being physically present in a place with the concurrent intent to make that place a domicile. To determine intent, the University evaluates an individual’s objectively verifiable conduct as an indicator of his or her state of mind.

Procedural Information

General. A student admitted to initial enrollment in an institution (or permitted to reenroll following an absence that involved a formal withdrawal from enrollment) is classified by the admitting institution either as a resident or as a nonresident for tuition purposes prior to actual matriculation. In the absence of a current and final determination of the student’s residence prior to matriculation, the student is classified as a nonresident for tuition purposes. The institution will thereafter reach a final determination of the student’s residence status. Unless a person supplies enough information to allow the admissions officer to classify him or her as a resident for tuition purposes, the person will be classified a nonresident for tuition purposes. A residence classification once assigned (and confirmed pursuant to any appellate process invoked) may be changed thereafter (with a corresponding change in billing rates) only at intervals corresponding with the established primary divisions of the academic calendar.

Transfer Students. When a student transfers from one North Carolina public institution of higher education to another, he or she is required to be treated as a new student by the institution to which he or she is transferring and must be assigned an initial residence classification for tuition purposes. The residence classification of a student by one institution is not binding on another institution. The North Carolina institutions of higher education will assist each other by supplying residency information and classification records concerning a student to another classifying institution upon request.

The transfer into or admission to a different component of the same institution (e.g., from an undergraduate to a graduate or professional program) is not construed as a transfer from one institution to another and thus does not by itself require a reclassification inquiry unless (1) the affected student requests a reclassification inquiry or (2) the transfer or enrollment occurs following the lapse of more than one quarter, semester, or term during which the individual was enrolled in a different institution.

Responsibility of Students and Prospective Students. Any student or prospective student in doubt concerning his or her residence status is responsible for securing a ruling by completing an application for resident status and filing it with the admissions officer. The student who subsequently becomes eligible for a change in classification, whether from out-of-state to in-state or the reverse, is responsible for immediately informing the Office of Admissions in writing of his or her new status. Failure to give complete and correct information regarding residence constitutes grounds for disciplinary action.

Application Process. A person may obtain an application for resident status from his or her admissions office. Applicants for admission who claim eligibility for the in-state tuition rate customarily complete a two-page residency application as a part of the admissions application packet. Some applicants for admission will thereafter be required to complete a more detailed four-page residency application. Enrolled students seeking a change from nonresident to resident status are required to complete a four-page residency application. All applications for resident status must be filed with the proper admissions office before the end of the term for which resident status for tuition purposes is sought. The last day of the final examination period is considered the last day of the term.

After filing a resident status application, a person may receive a letter from his or her admissions office requesting more information in connection with that application. When a student receives such a request before the end of the term for which classification is sought, he or she must respond to that request no later than three weeks after the end of the term. If the student receives the request after supplemental information after the end of the term in question, he or she must supply the requested information within three weeks after receipt of the request. Failure to supply the requested information within the specified time limit will result in a continuation of the student’s nonresident classification unless good cause is shown for such failure.

The admissions office may require an applicant for admission to file a residency application or respond to a request for more information more quickly when residence status is a factor in the admissions decision.

The pamphlet Information About Resident Status for Tuition Purposes contains more details about the residency application process and is available at all admissions offices.

Fraudulent Applications. If a student is classified a resident for tuition purposes after submitting falsified residency information or after knowingly withholding residency information, the student’s application for in-state tuition status is fraudulent.

The institution may reexamine any application suspected of being fraudulent and, if warranted, will change the student’s residence status retroactively to the beginning of the term for which the student originally made the fraudulent application. If this occurs, the student must pay an out-of-state tuition difference for all the enrolled terms intervening between the fraudulent application and its discovery. Further, knowing falsification of responses on a resident status application may subject the applicant to disciplinary action, including dismissal from the institution.

Burden of Proof and Statutory Prima Facie Evidence. A person has the burden of establishing facts that justify his or her classification as a resident for tuition purposes.

The balancing of all the evidence must produce a preponderance of evidence supporting the assertion of in-state residence. Under the statute, proof of resident status is controlled initially by one of two evidentiary beginning points which are stated in terms of prima facie evidence.

a. Even if the person is an adult, if his or her parents (or court-appointed guardian in the case of some minors) are not legal residents of North Carolina, this prima facie evidence that the person is not a legal resident of North Carolina unless he or she lived in this state in the five consecutive years prior to enrolling or registering. To overcome this prima facie showing of nonresidence, a person must produce evidence that he or she is a North Carolina domiciliary despite the parents’ nonresident status.

b. Conversely, if the person’s parents are domiciliaries of North Carolina under the Statute, this fact constitutes prima facie evidence that the person is a domiciliary of North Carolina. This prima facie showing may also be overcome by other evidence to the contrary. If a person has neither living parents nor legal guardian, the prescribed prima facie evidence rule cannot and does not apply.

Erroneous Notices Concerning Classification. If a student who has been found to be a nonresident for tuition purposes receives an erroneous written notice from an institutional officer identifying the student as a resident for tuition purposes, the student is not responsible for paying the out-of-state tuition differential for any enrolled term beginning before the classifying institution notified the student that the prior notice was erroneous.

Grace Period. If a student has been properly classified as a North Carolina resident for tuition purposes and, thereafter, his or her state of legal residence changes while he or she is enrolled in a North Carolina public institution of higher education, the statute provides for a grace period during which the student is allowed to pay tuition at the in-state rate despite the fact that the student is no longer a North Carolina legal resident. This grace period extends for a minimum of twelve months from the date of change in legal residence, and if the twelve-month period ends during a semester or academic term in which the student is enrolled, the grace period extends also to the end of that semester or academic term.

Reacquisition of Resident Tuition Status. The prescribed twelve-month period of legal residence may be shortened if the person seeking to be classified as a resident for tuition purposes was formerly classified a North Carolina resident for tuition purposes, abandoned North Carolina domicile, and returned to North Carolina domicile within twelve months after abandoning it. Interested persons should consult their admissions offices for a detailed explanation of the conditions which must be met to qualify under this section.

Appeals. A student appeal of a classification decision made by any admissions officer must be in writing and signed by the student and must be filed with the student with that officer within fifteen working days after the student receives notice of the classification decision. The notice is transmitted to the Residence Status Committee by that officer, who does not vote in that committee on the disposition of such appeal. The student is notified of the date set for consideration of the appeal, and on request of the student, he or she is afforded the opportunity to appear and be heard by the committee. Any student desiring to appeal a decision of the Residence Status Committee must give notice in writing of that fact (within ten days of receipt of the committee’s
decision) to the chairman of the Residence Status Committee, and the chairman promptly processes the appeal for transmittal to the State Residence Committee.

**Tuition Payment.** It is the responsibility of the student to pay tuition at the rate charged and billed while an appeal is pending. In effect, the student who is classified a nonresident at the time of tuition billing pays the nonresident rate. Conversely, if a student is classified as a resident at the time of billing, he or she pays the resident rate. Any necessary adjustments in the rate paid will be made at the conclusion of the appeal.

If a student withdraws from the University during a fall or spring semester, tuition and fees will be prorated over a period of nine weeks at a rate of one-tenth of the term's bill each week after deduction of an administrative charge. If a student withdraws during a summer session, tuition and fees will be prorated over a period of three weeks at a rate of one-fourth of the term's bill each week after deduction of the administrative charge. If a student drops the only course he or she is taking, this constitutes a withdrawal from the University.

**Application of the Law to Specific Situations**

**Aliens.** Aliens who are permanent residents of the United States, or who hold a visa that will permit eventual permanent residence in the United States, are subject to the same considerations with respect to determination of legal residence as citizens. An alien abiding in the United States under a visa conditioned at least in part upon not to be admitted as a legal resident may be accepted as resident only after being shown to meet the requirements of being a legal resident [B.F. H., and J. visas] cannot be considered a resident. An alien abiding in the United States under a visa issued for a purpose that is so restricted as to be fundamentally incompatible with an assertion by the alien of bona fide intent to establish a legal residence (C, D, and M visas) cannot be considered a resident.

Possession of certain other immigration documents may also allow an alien to be considered for in-state tuition status. For more details, students should consult their admissions offices and the manual. Aliens must file a Residence Status Supplemental Form in addition to the forms normally required of applicants for resident status for tuition purposes.

**Married Persons.** The domicile of a married person, irrespective of sex, is determined by reference to all relevant evidence of domiciliary intent. No person is precluded, solely by reason of marriage to a person domiciled outside of North Carolina, from establishing or maintaining legal residence in North Carolina. No person is deemed, solely by reason of marriage to a person domiciled in North Carolina, to have established or maintained a legal residence in North Carolina. The fact of marriage and the place of the domicile of his or her spouse are deemed relevant evidence to be considered in ascertaining domiciliary intent.

If a person otherwise can demonstrate compliance with the fundamental statutory requirement that he or she be a legal resident of North Carolina before the beginning of the term for which resident status is sought, the second statutory requirement relating to duration of residence is satisfied derivatively, in less than twelve months, by reference to the length of the legal residence of the person's spouse, if the spouse has been a legal resident of the state for the requisite twelve-month period.

**Military Personnel.** The domicile of a person employed by the federal government is not necessarily affected by assignment in or reassignment out of North Carolina. Such a person may establish domicile by the usual requirements of residential act plus proof of possession by his or her in-state resident status solely by serving in the armed forces outside of the state of North Carolina.

**Minors.** A minor is any person who has not reached the age of eighteen years. Under the common law, a minor child whose parents are not divorced or legally separated is presumed to have the domicile of his or her father. This presumption may be rebutted if a preponderance of the evidence indicates that the mother and father have separate domiciles and that, under the circumstances, the child can fairly be said to derive his or her domicile from the mother. If the father is deceased, the domicile of the minor is that of the surviving mother. If the parents are divorced or legally separated, the domicile of the minor is that of the parent having custody by virtue of a court order, or, if no custody has been granted by virtue of court order, the domicile of the minor is that of the parent with whom he or she lives; or, if the minor lives with neither parent, in the absence of a custody award, the domicile of the minor is presumed to remain that of the father. If the minor lives for part of the year with each parent, in the absence of a custody award, the minor's domicile is presumed to remain that of the father. These common law presumptions control even if the minor has lived in North Carolina for five years as set forth above in Burden of Proof and Statutory Prima Facie Evidence, subsection a.

In determining residence status for tuition purposes, there are three exceptions to the above provisions:

1. If a minor's parents are divorced, separated, or otherwise living apart and one parent is a legal resident of North Carolina, during the time period when the minor is entitled to claim, and does claim, the minor as a dependent on the North Carolina individual income tax return, the minor is deemed to be a legal resident of North Carolina for tuition purposes, notwithstanding any judicially determined custody award with respect to the minor.

2. If immediately prior to his or her eighteenth birthday a person would have been deemed a North Carolina legal resident under this provision but he or she achieves majority before enrolling in a North Carolina institution of higher education, that person will not lose the benefit of this provision if the following conditions are met:
   a. Upon achieving majority the person must act, as much as possible, in a manner consistent with bona fide legal resident in North Carolina; and
   b. The person must begin enrollment at a North Carolina institution of higher education not later than the fall academic term following completion of education prerequisite to admission at the institution.

3. If immediately prior to beginning an enrolled term the minor has lived in North Carolina for five or more consecutive years in the home of an adult relative (other than a parent) who is a legal resident of North Carolina, and if the adult relative during those years has functioned as a de facto guardian of the minor, then the minor is considered a legal resident of North Carolina for tuition purposes. If a minor qualified for resident status for tuition purposes under this provision immediately prior to his or her eighteenth birthday, then, upon becoming eighteen, he or she will be deemed a legal resident of North Carolina of at least twelve months' duration.

4. Even though a person is a minor, under certain circumstances the person may be treated by the law as being sufficiently independent from his or her parents as to enjoy a species of adulthood for legal purposes. If the minor marries or obtains a judicial decree of emancipation under N.C. Gen. Stat. § 7A-717, et seq., he or she is emancipated. The consequence, for present purposes, of such emancipation is that the affected person is presumed to be capable of establishing a domicile independent of that of the parents; it remains for that person to demonstrate that a separate domicile has, in fact, been established.

**Prisoners.** There are special provisions concerning domicile of prisoners. For more information, persons to whom these provisions may apply should consult the manual.

**Property and Taxes.** Ownership of property in or payment of taxes to the State of North Carolina apart from legal residence will not qualify one for in-state tuition rate.

**Students or prospective students who believe that they are entitled to be classified residents for tuition purposes should be aware that the processing of requests and appeals can take a considerable amount of time. A student is more likely to obtain a final decision on an application before tuition payment is due if he or she files the application several months in advance.**

**Military Tuition Benefit**


Certain members of the Armed Services and their dependent relatives who are not residents for tuition purposes may become eligible to be charged less than the out-of-state tuition rate under N.C. Gen. Stat. §§ 116-143.3, the military tuition benefit provision. Any person seeking the military tuition benefit must qualify for admission to UNC-Chapel Hill and must file an application for the benefit with his or her admissions office before the first day of classes of the term for which he or she initially seeks the benefit. To remain eligible to receive the military tuition benefit, he or she must file another application for the benefit before the first day of classes of the first term in which he or she is enrolled in each academic year. The burden of proving eligibility for the military tuition benefit lies with the applicant for the benefit, and the application and all required supporting affidavits from the appropriate military authorities, prospective applicants for the military tuition benefit are urged to secure application forms from their admissions offices and begin the application process several weeks before the first day of classes of the term for which they seek the benefit.

**Eligibility of Members of the Armed Services.** Eligible members of the Armed Services pay a rate of tuition computed by applying a statutory formula which is dependent, in part, on the amount of money payable by their Service employer to them or to the institution by reason of their enrollment. Application of the statutory formula yields the following results: if the service member's education is being fully funded by the Service employer, the amount of tuition owed is equal to out-of-state tuition; if the member's education is not being funded by his or her Service employer, he or she pays an amount equal to in-state tuition; and if the Service employer is providing partial educational funding, the amount of tuition owed depends on the amount of funding contributed by the Service employer.

To be eligible for this military tuition benefit, the individual must be:

1. a member of the United States Air Force, Army, Coast Guard, Marine Corps, Navy, North Carolina National Guard, or a reserve component of one of these services; and
2. abiding in North Carolina incident to active military duty performed at or from a duty station in North Carolina.

**Eligibility of Dependent Relatives of Service Members.** If the service member meets the conditions set forth above, his or her dependent relatives may be eligible to
Eligibility of Dependent Relatives of Service Members. If the service member meets the conditions set forth above, his or her dependent relatives may be eligible to pay the in-state tuition rate if they share the service member's North Carolina abode, if they have complied with the requirements of the Selective Service System (if applicable) and if they qualify as military dependents, as defined by that system.

If the service member voluntarily chooses to live in North Carolina or is involuntarily absent from the state on military orders (other than absences on routine maneuvers and temporary assignments), he or she is deemed to have moved his or her abode from North Carolina. If a dependent relative of a service member has become eligible for the military tuition benefit, and after the beginning of the term of eligibility the service member moves his or her abode from North Carolina, the dependent relative will continue to be eligible for the military tuition benefit only for the remainder of that academic year. An academic year runs from the first day of classes of the fall semester through the last day of exams of the following summer session, second term.

For a detailed explanation of the military tuition benefit provision (including an explanation of the formula used to compute the tuition rate for service members), a complete list of categories of persons who are considered “dependent relatives” for purposes of establishing eligibility for the military tuition benefit, and information about the registration requirements of the Selective Service System, applicants should consult A Manual to Assist the Public Higher Education Institutions of North Carolina in the Matter of Student Residence Classification for Tuition Purposes (as amended September 1985). This manual is available for inspection in the Admissions Offices of the University. Copies of the manual are also on reserve at the Robert B. House Undergraduate Library and in the Reserve Reading Room of the Health Sciences Library.

Appeals of Eligibility Determinations of Admissions Officers. A student appeal of an eligibility determination made by any admissions officer must be in writing and signed by the student and must be filed by the student with that officer within fifteen working days after the student receives notice of the eligibility determination. The appeal is transmitted to the Residence Status Committee by that officer, who does not vote in that committee on the disposition of such appeal. The student is notified of the date set for consideration of the appeal, and, on request by the student, is afforded an opportunity to appear and be heard by the committee.

Any student desiring to appeal a determination of the Residence Status Committee must give notice in writing of that fact to the chairman of the Residence Status Committee within ten days of receipt of the committee’s decision. The chairman will promptly process the appeal for transmittal to the State Residence Committee.

Family Educational Rights and Privacy Act

As a general rule, under the federal Family Educational Rights and Privacy Act (FERPA), personally identifiable information may not be released from a student’s education records without his or her prior written consent. Exceptions to this rule are set out in the FERPA regulations and the FERPA policy of the University of North Carolina at Chapel Hill.

UNC-Chapel Hill will disclose personally identifiable information from the education records of a student, without the student’s prior written consent, to officials of another school or school system in which the student seeks or intends to enroll. UNC-Chapel Hill will also disclose personally identifiable information from an enrolled student’s education records, without the student’s prior written consent, to officials of another school or school system in which the student is contemporaneously enrolled.

Time, building, and room number information from a student’s class schedule will be disclosed to the University Police to assist them in serving the student with a warrant or subpoena.

UNC-Chapel Hill makes public certain information that has been designated as “directory information:” the student’s name; address (local and grade/billing address); student e-mail address; telephone listing (local and grade/billing telephone numbers); date and place of birth; county, state and/or United States territory from which the student originally enrolled; major field of study, class (junior, senior, etc.); enrollment status (full-time, half-time, or part-time); anticipated graduation date; participation in officially recognized activities and sports; weight and height of members of athletic teams; dates of attendance; degrees and awards received; and the most recent previous educational agency or institution attended by the student. Examples of ways in which some of this information is made public include names of students who receive honors and awards, who make the Dean’s List, who hold offices, or who are members of athletic teams. The annual commencement program publishes the names of degree recipients. The University also publishes the Campus Directory annually, and some professional and graduate student groups publish directories of students in their departments or schools.

Students who do not wish to have any or all directory information made public with respect to graduation or transfer must send a signed statement of this to the Office of the University Registrar, CB# 2100, 105 Hanes Hall, The University of North Carolina at Chapel Hill. To ensure that a listing for the student will not appear in the Campus Directory, this notice must be received by the office of the University Registrar by the end of the registration period for the semester or session of first enrollment or, following an absence of one year. Notice of not being to be honored until the student graduates, ceases to attend, or withdraws from the University unless the student notifies the Office of the University Registrar to the contrary in writing.

Students also have the right to inspect their education records as defined in the FERPA regulations. They may not inspect financial records and statements of their parents; confidential letters of recommendation placed in their education records before January 1, 1975 (with some exceptions); or confidential letters of recommendation placed in their education records after January 1, 1975, if they have waived their right to inspect and review such letters.

A student who believes that information in his or her education records is inaccurate or misleading or violates his or her privacy rights may request that the institution amend the records, and if the request is denied, he or she has the right to a hearing. If after the hearing, the institution decides that the information is not inaccurate, misleading, or violates of privacy rights, the student has a right to place a statement in those records commenting on the information in question or giving the student’s reasons for disagreeing with the institutional decision. The student may also place such a statement in his or her records in lieu of requesting a hearing if the student and the institution agree that an explanatory statement alone is the appropriate remedy. Complaints alleging violations of FERPA rights may also be filed with the U.S. Department of Education.

Questions about FERPA should be addressed to the Legal Adviser to the Special Assistant to the Chancellor (CB# 9150, 01 South Building). The text of FERPA and its regulations and the University’s FERPA policy are also available for inspection in 01 South Building.

Students’ Education Records at General Administration of The University of North Carolina: Annual Notification of Rights

Certain personally identifiable information about students ("education records") may be maintained at The University of North Carolina General Administration, which serves the Board of Governors of the University system. This student information may be the same as, or derivative of, information maintained by a constituent institution of the University; or it may be additional information. Whatever their origins, education records maintained at General Administration are subject to the federal Family Educational Rights and Privacy Act of 1974 (FERPA).

FERPA provides that a student may inspect his or her education records. If the student finds the records to be inaccurate, misleading, or otherwise in violation of the student’s privacy rights, the student may request amendment to the record. FERPA also provides that a student’s personally identifiable information may not be released to anyone else unless (1) the student has given a proper consent for disclosure; or (2) provisions of FERPA or federal regulations issued pursuant to FERPA permit the information to be released without the student’s consent.

A student may file with the United States Department of Education a complaint concerning failure of General Administration or an institution to comply with FERPA.

The policies of The University of North Carolina General Administration concerning FERPA may be inspected in the office of each constituent institution designated to maintain the FERPA policies of the institution. Policies of General Administration may also be accessed in the Office of the Secretary of The University of North Carolina, General Administration, 910 Raleigh Road, Chapel Hill, NC.

Further details about FERPA and FERPA procedures at General Administration are to be found in the referenced policies. Questions about the policies may be directed to Legal Section, Office of the President, The University of North Carolina, General Administration, Annex Building, 910 Raleigh Road, Chapel Hill, N.C. (mailing address P.O. Box 2688, Chapel Hill, N.C. 27515-2688; tel: 919-962-4888).

Expulsion

A student who has been expelled from an institution in the University of North Carolina system may not be admitted to another UNC-system school unless the institution that originally expelled the student rescinds that expulsion.

Firearms and Other Weapons

The possession of any gun, rifle, pistol, dynamite cartridge, bomb, grenade, mine, explosive, Bowie knife, dirk, dagger, slingshot, leaded cane, switchblade knife, blackjack, metallic knuckles, or any other weapons of like kind upon any University campus or in any University-owned or operated facility is unlawful and contrary to University policy. Violation of this prohibition is a misdemeanor punishable by a fine not to exceed $500 and/or six months’ imprisonment, and may constitute a violation of the Campus Code.

Immunization Requirement

Effective July 1, 1986, North Carolina state law requires that no person shall attend a college or university in North Carolina unless a certificate of immunization indicating that the person has received the immunizations required by the law is presented to
the college or university on or before the first day of matriculation. Students enrolled at UNC-Chapel Hill on July 1, 1986 are exempt from this requirement.

If the UNC-Chapel Hill Medical History Form containing the certificate of immunization is not in the possession of the UNC-Chapel Hill Student Health Service ten days prior to the registration date, the University shall present a notice of deficiency to the person. The person shall have thirty calendar days from the first day of attendance to obtain the required immunizations. Those persons who have not complied with the immunization requirements by the end of thirty calendar days will be administratively withdrawn from the University.

**Policy on Illegal Drugs**

**Introduction.**

The Board of Trustees of The University of North Carolina at Chapel Hill, in conformity with the direction of the Board of Governors of The University of North Carolina, hereby adopts this Policy on Illegal Drugs, effective August 24, 1986. It is applicable to all students, faculty members, administrators, and other employees.

**Education, Counseling, and Rehabilitation.**

A. The University of North Carolina at Chapel Hill has established and maintains a program of education designed to help all members of the University community avoid involvement with illegal drugs. This educational program emphasizes these subjects:

1. The incompatibility of the use or sale of illegal drugs with the goals of the University;
2. The legal consequences of involvement with illegal drugs;
3. The medical implications of the use of illegal drugs; and
4. The ways in which illegal drugs jeopardize an individual's present accomplishments and future opportunities.

B. The University of North Carolina at Chapel Hill provides information about drug counseling and rehabilitation services available to members of the University community through campus-based programs and through community-based organizations. Persons who voluntarily avail themselves of University services are hereby assured that applicable professional standards of confidentiality will be observed.

**Enforcement and Penalties.**

A. The University of North Carolina at Chapel Hill shall take all actions necessary, consistent with state and federal law and applicable University policy, to eliminate illegal drugs from the University community. The University’s Policy on Illegal Drugs is publicized in catalogs and other materials prepared for all enrolled and prospective students and in materials distributed to faculty members, administrators, and other employees.

B. Students, faculty members, administrators, and other employees are responsible, as citizens, for knowing about and complying with the provisions of North Carolina law that make it a crime to possess, sell, deliver, or manufacture those drugs designated collectively as controlled substances in Article 5 of Chapter 90 of the North Carolina General Statutes. Any member of the University community who violates that law is subject both to prosecution and punishment by the civil authorities and to disciplinary proceedings by the University. It is not “double jeopardy” for both the civil authorities and the University to proceed against and punish a person for the same specified conduct. The University will initiate its own disciplinary proceedings against a student, faculty member, administrator, or other employee when the alleged conduct is deemed to affect the interests of the University.

C. Penalties will be imposed by the University in accordance with procedural safeguards applicable to disciplinary actions against students, faculty members, administrators, and other employees, as provided by Section 3 of the Trustee Policies and Regulations Governing Academic Tenure in The University of North Carolina at Chapel Hill; by Section III.D. of the Employment Policies for EPA Non Faculty Employees of The University of North Carolina at Chapel Hill; by regulations of the State Personnel Commission, and the Disciplinary Procedure of the Staff Personnel Administration Guides (Human Resources Manual for SPA Employees), by The Instrument of Student Judicial Governance, and by all other applicable provisions of the policies and procedures of The University of North Carolina at Chapel Hill.

D. The penalties to be imposed by the University may range from written warnings with probationary status to expulsions from enrollment and discharges from employment. However, the following minimum penalties shall be imposed for the particular offenses described.

1. **Trafficking in Illegal Drugs**

   a. For the illegal manufacture, sale or delivery, or possession with intent to manufacture, sell or deliver, of any controlled substance identified in Schedule I, N.C. General Statutes 90-89, or Schedule II, N.C. General Statutes 90-90 (including, but not limited to, heroin, mescaline, lysergic acid diethylamide, opium, cocaine, amphetamine, methaqualone), any student shall be expelled and any faculty member, administrator or other employee shall be discharged.

   b. For a first offense involving the illegal manufacture, sale or delivery, or possession with intent to manufacture, sell or deliver, of any controlled substance identified in Schedules III through VI, N.C. General Statutes 90-91 through 90-94, (including, but not limited to, marijuana, anabolic steroids, pentobarbital, codeine), the minimum penalty shall be suspension from enrollment or from employment for a period of at least one semester or its equivalent. (Employees subject to the State Personnel Act are governed by regulations of the State Personnel Commission. Because the minimum penalty specified in this Section and required by the Board of Governors exceeds the maximum period of suspension without pay that is permitted by State Personnel Commission regulations, the penalty for a first offense for employees subject to the State Personnel Act is discharge.) For a second offense, any student shall be expelled and any faculty member, administrator, or other employee shall be discharged.

   2. **Illegal Possession of Drugs**

   a. For a first offense involving the illegal possession of any controlled substance identified in Schedule I, N.C. General Statutes 90-89, or Schedule II, N.C. General Statutes 90-90, the minimum penalty shall be suspension from enrollment or from employment for a period of at least one semester or its equivalent. (Employees subject to the State Personnel Act are governed by regulations of the State Personnel Commission. Because the minimum penalty specified in this Section and required by the Board of Governors exceeds the maximum period of suspension without pay that is permitted by State Personnel Commission regulations, the penalty for a first offense for employees subject to the State Personnel Act is discharge.)

   b. For a first offense involving the illegal possession of any controlled substance identified in Schedules III through VI, N.C. General Statutes 90-91 through 90-94, the minimum penalty shall be probation, for a period to be determined on a case-by-case basis. A person on probation must agree to participate in a drug education and counseling program, consent to regular drug testing, and accept other such conditions and restrictions, including a program of community service, as the Chancellor or the Chancellor's designee deems appropriate. Refusal or failure to abide by the terms of probation shall result in suspension from enrollment or from employment for any unexpired balance of the prescribed period of probation. (If this balance for an employee subject to the State Personnel Act exceeds three days, that employee shall be discharged.)

   c. For second or other subsequent offenses involving the illegal possession of controlled substances, progressively more severe penalties shall be imposed, including expulsion of students and discharge of faculty members, administrators, or other employees.

   **Suspension Pending Final Disposition**

   When a student, faculty member, administrator, or other employee has been charged by the University with a violation of policies concerning illegal drugs, he or she may be suspended from enrollment or employment before initiation or completion of regular disciplinary proceedings if, assuming the truth of the charges, the Chancellor, or in the Chancellor’s absence, the Chancellor’s designee concludes that the person’s continued presence within the University Community would constitute a clear and immediate danger to the health or welfare of other members of the University community; provided, that if such a suspension is imposed, an appropriate hearing of the charges against the suspended person shall be held as promptly as possible thereafter.

   **Implementation and Reporting**

   Annually, the Chancellor shall submit to the Board of Trustees a report on campus activities related to illegal drugs for the preceding year. The reports shall include, as a minimum, the following:

   (1) a listing of the major educational activities conducted during the year;
   (2) a report on any illegal drug-related incidents, including any sanctions imposed;
   (3) an assessment by the Chancellor of the effectiveness of the campus program; and
   (4) any proposed changes in the Policy on Illegal Drugs.

   A copy of the report shall be provided to the President, who shall confer with the Chancellor about the effectiveness of campus programs.

   **Master’s/Doctoral Dissertation**

   Receipt of an approved master’s thesis or doctoral dissertation in the Graduate School is tantamount to publication, and the thesis or dissertation will be available to the public in the University Library and available for interlibrary loan. Honors theses are also made available to the public through the University Library. Other student papers may be put in campus libraries or otherwise made public in accordance with individual course or program requirements.

   **Equity in Athletics Information**

   Beginning October 1, 1996, information compiled under the federal Equity in Athletics Disclosure Act will be available, on request, from the office of the Director of Athletics.
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