

# DEPARTMENT OF ECONOMICS (GRAD)

The graduate program in the Department of Economics prepares students for teaching and research careers in the fields of econometrics, financial econometrics, health economics, industrial organization, international finance, international trade, labor economics, microeconomic theory, quantitative macroeconomics. During the first year of the program, students concentrate on the core areas of econometrics, macroeconomics, and microeconomics. Later, each student chooses a field of specialization. The department's objective is to provide students both with broad training in economics and econometrics and in a chosen field of specialization.

A number of students supplement their study in economics at UNC-Chapel Hill with work in finance, statistics, mathematics, biostatistics, urban and regional studies, computer science, and operations research, along with courses at Duke University and North Carolina State University. Strong offerings in these and other related areas enhance the overall graduate training offered to students.

## Fellowships and Assistantships

The department offers several fellowships and a number of research and teaching assistantships. All applicants to the Ph.D. program are considered for financial support, and most students enrolled in the Ph.D. program receive a stipend, tuition assistance, and health insurance from the Department of Economics or other sponsors for the first five years of the program. Detailed information regarding the fellowships, assistantships, and instructorships may be obtained on the graduate program web page (<https://econ.unc.edu/graduate/>) in the department's website (<https://econ.unc.edu/>).

## Master of Science

The Economics Department Master of Science (M.S.) degree is intended to complement Ph.D. programs from our and other departments. Students can obtain an M.S. while working toward a Ph.D. in economics or they may pursue an M.S. if they decide to leave the Ph.D. program early or they do not meet the requirements. In addition, students from other graduate programs at UNC-Chapel Hill may pursue an M.S. in economics while completing the Ph.D. in the other program. Note that our economics graduate program does not include separate M.S.- and Ph.D.-level courses. Thus, any student pursuing an M.S. through our program must have the background and qualifications to successfully complete Ph.D.-level course work. For these reasons, only applications from UNC-Chapel Hill graduate students currently enrolled in another primary degree program will be considered. The master's program does not consider candidates outside of these circumstances. Master's and doctoral students take the same courses in the first year; therefore, master's students must have competitive backgrounds similar to our doctoral students to do well in the courses.

The master's degree requires the following coursework:

Code	Title	Hours
ECON 710	Advanced Microeconomic Theory I	3
ECON 720	Advanced Macroeconomic Theory I	3
ECON 700	Basic Quantitative Techniques	3
One course in econometrics:		3
ECON 770	Introduction to Econometric Theory	

ECON 771	Econometrics	
ECON 870	Advanced Econometrics	
Two courses in a specialized field		6
Three electives		9
A research course:		
ECON 992	Master's (Non-Thesis)	3
<b>Total Hours</b>		<b>30</b>

Courses are to be selected in consultation with, and with the approval of, the Director of Graduate Studies and the faculty in the field of specialization. In addition to coursework, a master of science student writes a research paper under the direction of the faculty advisor. The *Graduate School Handbook* describes the general requirements for the master's examinations and for the papers.

## Doctor of Philosophy

A doctoral candidate must complete 16 Ph.D.-level courses and two semesters of the doctoral dissertation course (ECON 994). Unless otherwise specified by the faculty in the specialized field, at least 13 of the 16 courses must be from the Department of Economics. All courses must be approved by the Director of Graduate Studies.

## Courses in the Fundamentals of Economics

The following eight courses or their equivalents are required:

Code	Title	Hours
ECON 700	Basic Quantitative Techniques	3
ECON 701	Analytical Methods for Mathematical Economics	3
ECON 710	Advanced Microeconomic Theory I	3
ECON 711	Advanced Microeconomic Theory II	3
ECON 720	Advanced Macroeconomic Theory I	3
ECON 721	Advanced Macroeconomic Theory II	3
ECON 770	Introduction to Econometric Theory	3
ECON 771	Econometrics	3
<b>Total Hours</b>		<b>24</b>

## Courses in the Field of Specialization within Economics

Each student selects a field of specialization. At least three (3) courses in the field of specialization are required. Current examples of field of specialization courses are available on the web page Field Specialization Requirements. (<https://econ.unc.edu/graduate/graduatedegrees/field-specialization-requirements/>) Notice that these are only examples and new fields of specialization can be created by students under the supervision of a faculty member.

## Courses in Supporting Fields

The remaining courses are supporting courses chosen by the student in consultation with the Director of Graduate Studies and other faculty members. The supporting courses may be within the field of specialization or in areas that complement the field of specialization.

## Doctoral Exams and Dissertation

Students must pass qualifying exams in econometrics, macroeconomics, and microeconomics. Students are also required to produce and pass a field paper. The qualifiers are taken in June and August of the student's first year. Students have three opportunities to pass each of the exams they take.

The *Graduate School Handbook* describes the requirements for the doctoral oral exam, doctoral dissertation, and final oral defense of the dissertation. The doctoral oral exam includes an evaluation of the thesis prospectus.

The general regulations of The Graduate School apply to students receiving graduate degrees in economics from the University of North Carolina at Chapel Hill.

## Professors

**Gary A. Biglaiser**, Microeconomic Theory, Industrial Organization  
**Anusha Chari**, International Finance, Open-Economy Macroeconomics  
**Luca Flabbi**, Labor Economics, Development Economics, Applied Econometrics  
**Jane Cooley Fruehwirth**, Social Economics, Economics of Education, Public Economics  
**Neville R. Francis**, Macroeconomics, Time Series  
**Eric Ghysels**, Econometrics, Financial Econometrics  
**Donna B. Gilleskie**, Health Economics, Applied Econometrics, Labor Economics  
**Peter Hansen**, Econometrics, Time Series, Financial Econometrics  
**Lutz A. Hendricks**, Macroeconomics, Human Capital, Economic Growth, Wealth Inequality  
**Jonathan B. Hill**, Econometric Theory, Time Series Econometrics, Statistics  
**Brian McManus**, Empirical Industrial Organization, Applied Microeconomics, Public Economics  
**Steven S. Rosefelde**, Comparative Economic Systems  
**Jonathan Williams**, Applied Econometrics, Industrial Organization, Applied Microeconomics  
**Andrew Yates**, Environmental Economics

## Associate Professors

**Andrii Babii**, Econometrics  
**Fei Li**, Applied Microeconomic Theory, Industrial Organization, Labor Economics  
**Peter Norman**, Microeconomics, Public Economics  
**Sergio O. Parreiras**, Game Theory, Microeconomics  
**Klara Peter**, Labor Economics, Development Economics, Applied Microeconomics, Public Policy  
**Stanislav Rabinovich**, Macroeconomics, Labor Economics  
**Valentin Verdier**, Econometrics

## Assistant Professors

**Jaden Chen**, Microeconomic Theory  
**Marco Duarte Filho**, Industrial Organization, Antitrust Economics  
**Qing Gong**, Public Economics, Health Economics  
**Andrés Hincapié**, Labor Economics, Health Economics, Entrepreneurship  
**Désiré Kédagni**, Econometrics, Causal Inference, Development Economics  
**Jacob Kohlhepp**, Labor Economics, Microeconomic Theory  
**Can Tian**, Macroeconomics, Searching and Matching Theory

## Fixed-Term Faculty

**Christopher Handy**, Applied Econometrics  
**Robert McDonough**, Applied Econometrics, Labor Economics  
**Christopher Roark**, Macroeconomics, Finance, Economics Education  
**Michelle Sheran-Andrews**, Microeconomics, Labor Economics, Economic Statistics  
**Kalina Staub**, Labor Economics, Gender Economics, Economics Education, Family Economics

**Geetha Vaidyanathan**, Macroeconomics, Statistics, Monetary Economics, International Economics

## Professors Emeriti

**John Akin**  
**Dennis R. Appleyard**  
**Ralph Byrns**  
**Patrick Conway**  
**William A. Darity Jr.**  
**Alfred J. Field Jr.**  
**A. Ronald Gallant**  
**David Guilkey**  
**Dell B. Johannesen**  
**James L. Murphy**  
**Michael K. Salemi**  
**John Stewart**  
**Helen V. Tauchen**  
**Boone Turchi**  
**Roger Waud**  
**James A. Wilde**  
**Xiaodong Wu**

## ECON

### Graduate-level Courses

*Graduate standing in economics or permission of the director of graduate studies in economics is required for all courses numbered 700 or higher.*

#### **ECON 700. Basic Quantitative Techniques. 3 Credits.**

Topics from real analysis, linear algebra, calculus, convex analysis, nonlinear programming, dynamic programming.

#### **Rules & Requirements**

**Grading Status:** Letter grade.

#### **ECON 701. Analytical Methods for Mathematical Economics. 3 Credits.**

Covers mathematical bases for economic analysis. Proofs, real analysis, functional analysis, convexity, fixed points, and modularity.

#### **Rules & Requirements**

**Grading Status:** Letter grade.

#### **ECON 710. Advanced Microeconomic Theory I. 3 Credits.**

This course offers a graduate level introduction to decision theory, general equilibrium and game theory.

#### **Rules & Requirements**

**Requisites:** Pre- or corequisites, ECON 410 and 700.

**Grading Status:** Letter grade.

#### **ECON 711. Advanced Microeconomic Theory II. 3 Credits.**

This course covers basic game theory and information economics. It covers games in normal and extensive form. Topics include repeated games, Bayesian games, dynamic games of incomplete information, mechanism design, and contracting.

#### **Rules & Requirements**

**Requisites:** Prerequisite, ECON 710.

**Grading Status:** Letter grade.

**ECON 720. Advanced Macroeconomic Theory I. 3 Credits.**

Macroeconomic models and solution methods. Overlapping generations, growth models in discrete and continuous time, endogenous growth, stochastic growth, heterogeneous agents with incomplete markets.

**Rules & Requirements**

**Requisites:** Prerequisite, ECON 700 or permission of instructor.

**Grading Status:** Letter grade.

**ECON 721. Advanced Macroeconomic Theory II. 3 Credits.**

Growth models, general equilibrium approach to monetary theory; input-output; disequilibrium theory; extensions of Keynesian and classical models.

**Rules & Requirements**

**Requisites:** Prerequisite, ECON 720.

**Grading Status:** Letter grade.

**ECON 770. Introduction to Econometric Theory. 3 Credits.**

Probability theory, expectation, conditional expectation, modes of convergence, limit and interchange theorems, and the asymptotics of maximum likelihood, generalized method of moments and efficient method of moments.

**Rules & Requirements**

**Grading Status:** Letter grade.

**ECON 771. Econometrics. 3 Credits.**

Standard first year course in econometric theory and methods. Topics include least squares and maximum likelihood, asymptotic theory, classic inference, GMM, seemingly unrelated regression, endogeneity bias, and multi-stage least squares.

**Rules & Requirements**

**Requisites:** Prerequisite, ECON 770.

**Grading Status:** Letter grade.

**ECON 775. Applied Econometric Analysis. 3 Credits.**

This course covers concepts and methods used in economic research with an emphasis on empirical applications. Topics include the basic single equation regression model, multiple equation models, discrete and categorical dependent variables, instrumental variables and longitudinal data. Permission of the instructor required.

**Rules & Requirements**

**Grading Status:** Letter grade.

**ECON 799. Experimental. 1-3 Credits.**

Varied.

**Rules & Requirements**

**Repeat Rules:** May be repeated for credit.

**Grading Status:** Letter grade.

**ECON 805. Seminar in Teaching Methods in Economic for TAs. 1-3 Credits.**

Covers skills in lecturing, encouraging student participation and active learning, writing exams, planning and evaluating courses. Students design and teach a module that includes class discussion and hands-on learning. Targeted to beginning teaching assistants.

**Rules & Requirements**

**Grading Status:** Letter grade.

**ECON 806. Seminar in Teaching Methods in Economics. 1-3 Credits.**

Doctoral candidacy in economics or permission of the instructor. Covers skills in lecturing, encouraging student participation and active learning, writing exams, planning and evaluating courses. Students design and teach a module that includes class discussion and hands-on learning. Targeted to those teaching independent sections.

**Rules & Requirements**

**Grading Status:** Letter grade.

**ECON 810. Game Theory I. 3 Credits.**

Noncooperative games in strategic and extensive form, with perfect and imperfect information. Other topics from: information economics, mechanism design, auctions, repeated games, bargaining, bounded rationality, learning, evolutionary games, cooperative games.

**Rules & Requirements**

**Requisites:** Prerequisite, ECON 710 and 711; permission of the instructor for students lacking the prerequisites.

**Grading Status:** Letter grade.

**ECON 811. Game Theory II. 3 Credits.**

This course is a continuation of ECON 810. Topics covered will be chosen from those listed, but not covered in ECON 810.

**Rules & Requirements**

**Requisites:** Prerequisite, ECON 810; permission of the instructor for students lacking the prerequisite.

**Grading Status:** Letter grade.

**ECON 820. Monetary Theory. 3 Credits.**

This course focuses on econometric testing of macroeconomic theories. Topics will vary from year to year, but will include for example, modern theories of short-run fluctuations: sources of business cycle and the evolution of income, employment, interest rate, and prices, monetary and fiscal policy theories in the presence of real and nominal rigidities.

**Rules & Requirements**

**Grading Status:** Letter grade.

**ECON 821. Topics in Macroeconomics II. 1-3 Credits.**

This course covers topics in macroeconomics such as economic growth, human capital, wealth inequality, and trade. The precise topics depend on the instructor.

**Rules & Requirements**

**Grading Status:** Letter grade.

**ECON 822. Firm Dynamics and Production Networks. 3 Credits.**

This course studies producer heterogeneity and its macroeconomic implications, i.e., aggregate growth or fluctuations. It introduces a set of theoretical and quantitative tools and aims to provide a coherent view of aggregate production from a disaggregated perspective. The course starts from classic firm-dynamics models and their applications, emphasizing the cross-sectional variation among firms. The second part introduces networks in macroeconomics and their implications, focusing on the connections among firms. Specific topics may differ each year.

**Rules & Requirements**

**Repeat Rules:** May be repeated for credit; may be repeated in the same term for different topics.

**Grading Status:** Letter grade.

**ECON 840. Advanced Finance: Expenditure. 3 Credits.**

Analysis of market failure and reasons for public spending, cost-benefit analysis and program budgeting, public decision making, redistribution and fiscal equity, intergovernmental transfers.

**Rules & Requirements**

**Grading Status:** Letter grade.

**ECON 841. Advanced Public Finance: Revenues. 3 Credits.**

Criteria for judging tax structures, incidence and impact of taxation, user charges and debt finance, intergovernmental coordination, and macroeconomic effects.

**Rules & Requirements**

**Requisites:** Prerequisite, ECON 840; permission of the instructor for students lacking the prerequisites.

**Grading Status:** Letter grade.

**ECON 845. Advanced Business Organization and Social Control. 3 Credits.**

Permission of the instructor. Extensive readings in the literature are required. Emphasis is placed upon the role of economic analysis in dealing with problems in this field.

**Rules & Requirements**

**Grading Status:** Letter grade.

**ECON 846. Theoretical Industrial Organization. 3 Credits.**

This course covers theoretical industrial organization (IO). Topics typically covered include: price discrimination, product bundling, foreclosure analysis, vertical relations between firms, two-sided markets, dynamic games, and markets with switching costs and network effects.

**Rules & Requirements**

**Grading Status:** Letter grade.

**ECON 847. EMPIRICAL INDUSTRIAL ORGANIZATION I. 3 Credits.**

This course covers empirical methods in industrial organization (IO), and is typically presented as the first part of a two-course empirical IO sequence. Topics typically covered include: demand estimation, information issues, vertical relations between firms, and productivity.

**Rules & Requirements**

**Grading Status:** Letter grade.

**ECON 848. EMPIRICAL INDUSTRIAL ORGANIZATION II. 3 Credits.**

This course covers empirical methods in industrial organization (IO), and is typically presented as the second part of a two-course empirical IO sequence. Topics typically covered include: static games of complete and incomplete information, dynamic demand, dynamic games, and auctions.

**Rules & Requirements**

**Grading Status:** Letter grade.

**ECON 850. Health Economics. 3 Credits.**

Measurement and modeling of the demand for medical care, the demand for and supply of health insurance, and the incorporation of health, medical care, and health insurance in determining both short and long run labor supply.

**Rules & Requirements**

**Requisites:** Prerequisites, ECON 710 and 771; permission of the instructor for students lacking the prerequisites.

**Grading Status:** Letter grade.

**ECON 851. Health Economics for Developing Countries. 3 Credits.**

Major topics are: how health and development are related, the demand for health services, cost-benefit and cost-effectiveness analysis, and methods for financing health care in developing, resource-constrained nations.

**Rules & Requirements**

**Requisites:** Prerequisites, ECON 710 and 771; permission of the instructor for students lacking the prerequisites.

**Grading Status:** Letter grade.

**ECON 852. Health Economics: Markets and Supply-Side Actors. 3 Credits.**

This course explores the economics of health care markets with a focus on supply-side actors, such as insurers, hospitals and physicians, and drug manufacturers. We will cover an assortment of topics in health economics and analyze them using tools from applied microeconomics and industrial organization.

**Rules & Requirements**

**Requisites:** Prerequisite, ECON 847, 848, 873, 880 or 881.

**Grading Status:** Letter grade.

**ECON 855. Economics and Population. 3 Credits.**

Analysis of economic-demographic interrelationships including: population and economic development; population, environmental decay, and zero population growth; models of fertility, migration, and spatial organization; population policy. (Not regularly offered.)

**Rules & Requirements**

**Requisites:** Prerequisite, graduate standing in economics or permission of the instructor.

**Grading Status:** Letter grade.

**ECON 860. Theory of International Trade. 3 Credits.**

Graduate standing in economics or permission of the instructor. The theory of international values; comparative advantage and the gains from trade; commercial policy.

**Rules & Requirements**

**Grading Status:** Letter grade.

**ECON 861. International Monetary Economics. 3 Credits.**

Graduate standing in economics or permission of the instructor. Analysis of the international monetary system; exchange rates; the process of adjustment in the balance of payments.

**Rules & Requirements**

**Grading Status:** Letter grade.

**ECON 865. Economic Development: Theory and Policy. 3 Credits.**

Permission of the instructor. Intensive study of the development processes and problems of the less developed countries, with emphasis on theories of growth and development, internal and external policies, and planning strategies.

**Rules & Requirements**

**Grading Status:** Letter grade.

**ECON 870. Advanced Econometrics. 3 Credits.**

ECON 870 constitutes a one-semester treatment of the fundamental theory of econometrics. Topics covered include asymptotic distribution theory, linear and nonlinear models, specification testing techniques, and simultaneous equations models.

**Rules & Requirements**

**Requisites:** Prerequisites, ECON 770, 771, and MATH 547.

**Grading Status:** Letter grade.

**ECON 871. Time Series Econometrics. 3 Credits.**

Advanced introduction to time series analysis. Covers stationarity, ergodicity, autoregressive and moving average models, unit roots and spurious regression, vector autoregressive models, cointegration, structural breaks/parameter instability and models with time-varying parameters.

**Rules & Requirements**

**Requisites:** Prerequisites, ECON 770 and ECON 771.

**Grading Status:** Letter grade.

**ECON 872. Nonlinear Econometric Methods. 3 Credits.**

Density estimation, nonparametric regression, neural nets, nonlinear regression, generalized method of moments, seminonparametric time series, estimating stochastic differential equations and nonlinear latent variables.

**Rules & Requirements**

**Requisites:** Prerequisite, ECON 870.

**Grading Status:** Letter grade.

**ECON 873. Microeconometrics. 3 Credits.**

Limited dependent variable models such as binary outcome models, multinomial outcome models, and censored and truncated outcome models. Count data models. Duration models. Panel data analysis.

**Rules & Requirements**

**Requisites:** Prerequisite, ECON 870.

**Grading Status:** Letter grade.

**ECON 874. Advanced Topics in Causal Inference. 3 Credits.**

This course covers recent advanced topics in causal inference, such as potential outcome models, randomized experiments, selection on observables, instrumental variables, testability of identifying assumptions, difference-in-differences models, changes-in-changes approach, synthetic control methods, regression discontinuity designs, and sample selection.

**Rules & Requirements**

**Repeat Rules:** May be repeated for credit; may be repeated in the same term for different topics.

**Grading Status:** Letter grade.

**ECON 876. Advanced Topics in Data Science and Finance. 3 Credits.**

The course is intended for PhD students in economics, finance, and related fields. With a focus on asset pricing, it is designed to teach students how to conduct empirical research using machine learning, high-dimensional data science, and AI tools. The goal is for students to become familiar with the most recent methodological advances and to be able to analyze and evaluate new research effectively.

**Rules & Requirements**

**Requisites:** Prerequisite, ECON 871.

**Grading Status:** Letter grade.

**ECON 877. Foundations for Continuous Time Asset Pricing. 3 Credits.**

This course introduces students to mathematical foundations and economic interpretation of the main probabilistic tools (stochastic calculus, martingale methods) in continuous time finance.

**Rules & Requirements**

**Requisites:** Prerequisites, STOR 634 and 635.

**Grading Status:** Letter grade.

**ECON 880. Labor Economics I. 3 Credits.**

Analysis of short- and long-run aspects of supply and demand of labor, including empirical analysis of labor force behavior of males, females, blacks, and whites. Microeconomic effects of marriage, fertility, mobility on labor supply, and macroeconomic effects of unemployment on inflation.

**Rules & Requirements**

**Requisites:** Prerequisite, ECON 710; permission of the instructor for students lacking the prerequisite.

**Grading Status:** Letter grade.

**ECON 881. Labor Economics II. 3 Credits.**

This course covers a range of topics in labor economics, with a unifying theme of understanding how economics informs policies for alleviating inequality. Topics include social interactions, education, early childhood intervention, and discrimination.

**Rules & Requirements**

**Grading Status:** Letter grade.

**ECON 882. Topics in Labor Economics-Dynamics and Search. 3 Credits.**

The course covers specific topics in labor economics by paying particular attention to dynamic considerations. The focus is on two groups of contributions, organized by methodology: The first group emphasizes search frictions in the labor market; the second uses discrete choice models to treat labor market dynamic. Specific topics covered in the course include: equilibrium unemployment, returns to Schooling, gender differentials, household interaction.

**Rules & Requirements**

**Grading Status:** Letter grade.

**ECON 883. Search Theory. 3 Credits.**

Search frictions have long been recognized as a reason for the existence of labor and capital unemployment. It is also a leading explanation for the price and wage dispersion, a standard tool in monetary economics. This course covers a number of widely used models of search frictions, and discusses how they relate to imperfect information about individual or match-specific characteristics and or coordination problems.

**Rules & Requirements**

**Grading Status:** Letter grade.

**ECON 890. Seminar. 1-15 Credits.**

Permission of the instructor. Individual research in a special field under direction of a member of the department.

**Rules & Requirements**

**Repeat Rules:** May be repeated for credit; may be repeated in the same term for different topics.

**Grading Status:** Letter grade.

**ECON 892. Research Practicum. 1-3 Credits.**

Students complete a pre-approved internship under the direction of a faculty member and the director of graduate studies. A paper summarizing the research work is required.

**Rules & Requirements**

**Repeat Rules:** May be repeated for credit.

**Grading Status:** Letter grade.

**ECON 896. Independent Study. 1-3 Credits.**

Varied.

**Rules & Requirements**

**Repeat Rules:** May be repeated for credit; may be repeated in the same term for different topics.

**Grading Status:** Letter grade.

**ECON 899. Experimental. 1-3 Credits.**

Varied.

**Rules & Requirements**

**Repeat Rules:** May be repeated for credit.

**Grading Status:** Letter grade.

**ECON 900. Dissertation Workshop: Topics in Economics. 1-3 Credits.**

Permission of the instructor. Discussion of current research with topics varying from year to year. Oral and written reports on dissertation research. May be repeated for credit.

**Rules & Requirements**

**Repeat Rules:** May be repeated for credit.

**Grading Status:** Letter grade.

**ECON 901. Dissertation Completion Workshop. 1.5 Credits.**

The main course objective is to formally practice communication (verbally and written) of research methods and findings. The course also provides professional development designed to formally prepare students for the economics job market. These course activities provide students with professional competencies and connections and help them envision their future with clarity and confidence. Targeted to those in their last year of doctoral studies that are seeking employment.

**Rules & Requirements**

**Grading Status:** Letter grade.

**ECON 910. Dissertation Workshop in Microeconomic Theory. 1-3 Credits.**

Permission of the instructor. Discussion of current research in microeconomic theory and industrial organization. Oral and written reports on dissertation research. May be repeated for credit.

**Rules & Requirements**

**Repeat Rules:** May be repeated for credit.

**Grading Status:** Letter grade.

**ECON 920. Dissertation Workshop in Macroeconomics. 1-3 Credits.**

Permission of the instructor. Discussion of current research in macroeconomics and monetary economics. Oral and written reports on dissertation research. May be repeated for credit.

**Rules & Requirements**

**Repeat Rules:** May be repeated for credit.

**Grading Status:** Letter grade.

**ECON 945. Dissertation Workshop in Industrial Organization. 1.5 Credits.**

Discussion of current research in industrial organization. Student presentations of dissertation and other research. Oral and written reports on dissertation research. Instructor permission required.

**Rules & Requirements**

**Repeat Rules:** May be repeated for credit; may be repeated in the same term for different topics.

**Grading Status:** Letter grade.

**ECON 958. Seminar in Population. 3 Credits.**

Graduate standing in economics required. For advanced population students, this course addresses the newest and most advanced economic demography literature.

**Rules & Requirements**

**Grading Status:** Letter grade.

**ECON 960. Dissertation Workshop in International and Development Economics. 1-3 Credits.**

Permission of the instructor. Discussion of current research in international and development economics. Oral and written reports on dissertation research. May be repeated for credit.

**Rules & Requirements**

**Repeat Rules:** May be repeated for credit.

**Grading Status:** Letter grade.

**ECON 966. Seminar in Economic Development. 1-3 Credits.**

This course is an introduction to the literature and research methods of economic development and transition economies. May be repeated for credit.

**Rules & Requirements**

**Repeat Rules:** May be repeated for credit.

**Grading Status:** Letter grade.

**ECON 968. Seminar in Soviet Economics. 3 Credits.**

Permission of the instructor. Studies of selected problems of the Soviet economy and related aspects of Soviet economic thought. Seminar members are expected to present reports on assigned research topics.

**Rules & Requirements**

**Grading Status:** Letter grade.

**ECON 970. Dissertation Workshop in Econometrics and Financial Econometrics. 1-3 Credits.**

Permission of the instructor. Discussion of current research in econometrics and financial econometrics. Oral and written reports on dissertation research. May be repeated for credit.

**Rules & Requirements**

**Repeat Rules:** May be repeated for credit.

**Grading Status:** Letter grade.

**ECON 971. Research in Econometrics. 3 Credits.**

The course introduces students to theoretical and applied research topics in econometrics. May be repeated for credit.

**Rules & Requirements**

**Grading Status:** Letter grade.

**ECON 981. Seminar in Labor. 1-3 Credits.**

The course introduces students to research topics in labor economics.  
May be repeated for credit.

**Rules & Requirements**

**Repeat Rules:** May be repeated for credit.

**Grading Status:** Letter grade.

**ECON 985. Dissertation Workshop in Applied Microeconomics. 1-3 Credits.**

Permission of the instructor. Discussion of current research in applied microeconomics. Student presentations of dissertation and other research. Oral and written reports on dissertation research.

**Rules & Requirements**

**Repeat Rules:** May be repeated for credit.

**Grading Status:** Letter grade.

**ECON 990. Special Topics. 1-3 Credits.****Rules & Requirements**

**Repeat Rules:** May be repeated for credit.

**Grading Status:** Letter grade.

**ECON 992. Master's (Non-Thesis). 3 Credits.****Rules & Requirements**

**Repeat Rules:** May be repeated for credit.

**ECON 994. Doctoral Research and Dissertation. 3 Credits.****Rules & Requirements**

**Repeat Rules:** May be repeated for credit.

## Contact Information

**Department of Economics**

Visit Program Website (<http://econ.unc.edu/graduate/>)

**Chair**

Donna Gilleskie