

# BIOSTATISTICS, A.S.-B.S.P.H.

This is a suggested course plan. It is highly recommended that you meet regularly with your academic advisor to determine your course selection and progress toward graduation.

Students who transfer to UNC under the Comprehensive Articulation Agreement (CAA) have all lower-level General Education requirements completed, but must complete these requirements through transfer or UNC coursework: Global Language (<http://catalog.unc.edu/undergraduate/ideas-in-action/global-language/>), Research and Discovery (<http://catalog.unc.edu/undergraduate/ideas-in-action/research-discovery/>), Lifetime Fitness (<http://catalog.unc.edu/undergraduate/ideas-in-action/lifetime-fitness/>), Communication Beyond Carolina (<http://catalog.unc.edu/undergraduate/ideas-in-action/communication-beyond/>), Campus Life Experience (<http://catalog.unc.edu/undergraduate/ideas-in-action/campus-life-experience/>), and, where applicable, Supplemental General Education. Students who do not transfer in under the CAA should work closely with their advisor to determine which requirements apply to them for the IDEAs in Action General Education curriculum (<http://catalog.unc.edu/undergraduate/ideas-in-action/>).

This catalog also includes a complete list of requirements for the Biostatistics B.S.P.H. degree (<http://catalog.unc.edu/undergraduate/programs-study/biostatistics-major-bsph/#requirementstext>).

## North Carolina Community College

### UGETC Curriculum

| Code               | Title  | Hours     |
|--------------------|--|-----------|
| UGETC              | English composition (ENG 111 + ENG 112 = UNC ENGL 105)   | 6         |
| UGETC              | Humanities/Fine Arts/Communication (2 courses from at least 2 different disciplines; see UGETC list below) | 6         |
| UGETC              | Social and Behavioral Sciences (2 courses from at least 2 different disciplines; see UGETC list below)     | 6         |
| MAT 271            | Calculus I (UNC MATH 231 + MATH 129P + MATH 110P) <sup>1,3</sup>   | 4         |
| MAT 272            | Calculus II (UNC MATH 232 + MATH 110P) <sup>1,3</sup>  | 4         |
| BIO 111            | General Biology I (UNC BIOL 101/101L + BIOL 103) <sup>1,3</sup>  | 4         |
| UGETC              | Natural Sciences (see UGETC list below)  | 4         |
| <b>Total Hours</b> |  | <b>34</b> |

### Additional General Education Courses

| Code               | Title                                 | Hours     |
|--------------------|---------------------------------------|-----------|
| XXX 111            | Foreign Language Level 1              | 3         |
| XXX 112            | Foreign Language Level 2              | 3         |
| XXX 211            | Foreign Language Level 3 <sup>4</sup> | 3         |
| Elective           |                                       | 2         |
| <b>Total Hours</b> |                                       | <b>11</b> |

### Other Required Hours

| Code    | Title                                      | Hours |
|---------|--|-------|
| ACA 122 | College Transfer Success (UNC GENR ---)    | 1     |
| MAT 273 | Calculus III (UNC MATH 233) <sup>1,3</sup> | 4     |
| BIO 250 | Genetics (UNC BIOL 202) <sup>2</sup>       | 4     |

|                        |                                 |           |
|------------------------|---------------------------------|-----------|
| One of: <sup>2,3</sup> |                                 | 3         |
| CSC 134                | C++ Programming (UNC COMP 110)  |           |
| CSC 151                | JAVA Programming (UNC COMP 110) |           |
| Elective               |                                 | 3         |
| <b>Total Hours</b>     |                                 | <b>15</b> |

| Code                                 | Title | Hours     |
|--------------------------------------|-------|-----------|
| <b>Total Community College Hours</b> |       | <b>60</b> |

<sup>1</sup> Required in the major.

<sup>2</sup> Counts in the major.

<sup>3</sup> Prerequisite required before matriculation into the major.


<sup>4</sup> All NC Community College Language courses numbered 211 are approved to transfer to UNC-Chapel Hill as a course that completes the GLBL-LANG IDEAs in Action requirement.

## UNC-Chapel Hill

### Semester 5

| Code                                    | Title   | Hours     |
|---|---|-----------|
| BIOS 500H                               | Introduction to Biostatistics                             | 3         |
| BIOS 511                                | Introduction to Statistical Computing and Data Management | 4         |
| SPHG 351                                | Foundations of Public Health <sup>1</sup>                 | 3         |
| EPID 600                                | Principles of Epidemiology for Public Health <sup>1</sup> | 3         |
| Elective or IDEAs in Action Requirement |   | 3         |
| <b>Total Hours</b>                      |   | <b>16</b> |

### Semester 6

| Code   | Title   | Hours     |
|--|---|-----------|
| BIOS 645   | Principles of Experimental Analysis   | 3         |
| SPHG 352   | Public Health Systems and Solutions <sup>1</sup>  | 4         |
| MATH 381   | Discrete Mathematics <sup>1,H</sup>   | 3         |
| or STOR 215  |  Foundations of Decision Sciences |           |
| Lifetime Fitness ( <a href="http://catalog.unc.edu/undergraduate/ideas-in-action/lifetime-fitness/">http://catalog.unc.edu/undergraduate/ideas-in-action/lifetime-fitness/</a> ) |   | 1         |
| Minor course #1, Elective, or IDEAs in Action Requirement  |   | 3         |
| <b>Total Hours</b>   |   | <b>14</b> |

H Honors version available. An honors course fulfills the same requirements as the nonhonors version of that course. Enrollment and GPA restrictions may apply.

### Semester 7

| Code  | Title   | Hours     |
|---|---|-----------|
| BIOS 650  | Basic Elements of Probability and Statistical Inference I | 3         |
| BIOS 691  | Field Observations in Biostatistics                       | 1         |
| MATH 347  | Linear Algebra for Applications <sup>1</sup>              | 3         |
| Minor course #2, Elective, or IDEAs in Action Requirement |   | 3         |
| Minor course #3, Elective, or IDEAs in Action Requirement |   | 3         |
| Elective or IDEAs in Action Requirement                   |   | 3         |
| <b>Total Hours</b>  |   | <b>16</b> |

**Semester 8**

| Code  | Title  | Hours     |
|---|--|-----------|
| BIOS 668  | Design of Public Health Studies <sup>1</sup>     | 3         |
| BIOS 664  | Sample Survey Methodology                        | 4         |
| MATH 521  | Advanced Calculus I <sup>1, H</sup>              | 3         |
| or MATH 528   | Mathematical Methods for the Physical Sciences I |           |
| Minor course #4, Elective, or IDEAs in Action Requirement |  | 3         |
| Minor course #5, Elective, or IDEAs in Action Requirement |  | 3         |
| <b>Total Hours</b>  |  | <b>16</b> |

H Honors version available. An honors course fulfills the same requirements as the nonhonors version of that course. Enrollment and GPA restrictions may apply.

<sup>1</sup> Required in the major.

**UGETC Course List (A.S. Curriculum)**

| Code   | Title  | Hours    |
|--|--|----------|
| <b>English Composition (two courses)</b>   |  | <b>6</b> |
| ENG 111  | Writing & Inquiry <sup>1</sup>                                 |          |
| ENG 112  | Writing/Research in the Disciplines <sup>1</sup>               |          |
| <b>Humanities/Fine Arts (two courses from at least two different disciplines)</b>      |  | <b>6</b> |
| ART 111  | Art Appreciation (UNC GENR 111)                                |          |
| ART 114  | Art History Survey I (UNC ARTH 151)                            |          |
| ART 115  | Art History Survey II (UNC ARTH 152)                           |          |
| COM 120  | Introduction to Interpersonal Communication (UNC COMM 120), OR |          |
| COM 231  | Public Speaking (UNC COMM 113)                                 |          |
| DRA 111  | Theatre Appreciation (UNC DRAM 116)                            |          |
| ENG 231  | American Literature I (UNC ENGL 128) <sup>2</sup>              |          |
| ENG 232  | American Literature II (UNC ENGL 128) <sup>2</sup>             |          |
| ENG 241  | British Literature I (UNC ENGL 120) <sup>2</sup>               |          |
| ENG 242  | British Literature II (UNC ENGL 121) <sup>2</sup>              |          |
| MUS 110  | Music Appreciation (UNC MUSC 141)                              |          |
| MUS 112  | Introduction to Jazz (UNC MUSC 145)                            |          |
| PHI 215  | Philosophical Issues (UNC PHIL 101) <sup>2</sup>               |          |
| PHI 240  | Introduction to Ethics (UNC PHIL 160) <sup>2</sup>             |          |
| <b>Social/Behavioral Science (two courses from at least two different disciplines)</b> |  | <b>6</b> |
| ECO 251  | Principles of Microeconomics (UNC GENR 119) <sup>3</sup>       |          |
| ECO 252  | Principles of Microeconomics (UNC GENR 119) <sup>3</sup>       |          |
| HIS 111  | World Civilizations I (UNC GENR 113)                           |          |
| HIS 112  | World Civilizations II (UNC GENR 113)                          |          |
| HIS 131  | American History I (UNC HIST 127)                              |          |
| HIS 132  | American History II (UNC HIST 128)                             |          |
| POL 120  | American Government (UNC POLI 100)                             |          |
| PSY 150  | General Psychology (UNC PSYC 101)                              |          |
| SOC 210  | Introduction to Sociology (UNC SOCI 101)                       |          |
| <b>Mathematics (select two courses)</b>  |  | <b>8</b> |
| MAT 171  | Precalculus Algebra (UNC MATH 110P)                            |          |
| MAT 172  | Pre-calculus Trigonometry (UNC MATH 130 + MATH 110P)           |          |
| MAT 263  | Brief Calculus (UNC MATH 152 + MATH 110P)                      |          |

|  |  |           |
|--|--|-----------|
| MAT 271  | Calculus I (UNC MATH 231 + MATH 129P + MATH 110P)                |           |
| MAT 272  | Calculus II (UNC MATH 232 + MATH 110P)                           |           |
| <b>Natural Sciences (select 8 SCH from the following courses):</b> |  | <b>8</b>  |
| AST 151/151A   | General Astronomy I and Lab (UNC ASTR 101/100L)                  |           |
| BIO 110  | Principles of Biology (UNC GENR 116)                             |           |
| BIO 111 & 112  | General Biology I & II (UNC BIOL 101/101L + BIOL 103 + BIOL 104) |           |
| CHM 151 & 152  | General Chemistry I & II (UNC CHEM 101/101L + CHEM 102/102L)     |           |
| GEL 111  | Introduction Geology (UNC EMES 101/101L)                         |           |
| PHY 110/110A   | Conceptual Physics and Lab (UNC PHYS 101)                        |           |
| PHYS 151 & 152   | College Physics I & II (UNC PHYS 114 + PHYS 115)                 |           |
| PHYS 251 & 252   | General Physics I & II (UNC PHYS 118 + PHYS 119)                 |           |
| <b>Total Hours</b>   |  | <b>34</b> |

IDEAs In Action Requirements not covered by the North Carolina Comprehensive Articulation Agreement that could be completed at the Community College:

COM 231 (UNC COMM 113) can fulfill COMMBEYOND; COM 120 (UNC COMM 120), CHM 251<sup>2</sup> (UNC CHEM 261 + CHEM 262L) or CHM 252<sup>2</sup> (UNC CHEM 262 + CHEM 262L) can fulfill RESEARCH, and PED 110 (LFIT 998) can fulfill LIFE-FIT.

<sup>1</sup> Students who complete both ENG 111 and 112 receive credit for UNC ENGL 100 + ENGL 105.

<sup>2</sup> Course may have prerequisite(s). Consult the North Carolina Community College Combined Course Library (<https://www.nccommunitycolleges.edu/academic-programs/combined-course-library/>) for most current information.

<sup>3</sup> ECO 251 + 252 = UNC ECON 101 + UNC GENR 119.

**Additional Resources****Applying to Carolina**

- The Office of Undergraduate Admissions (<https://admissions.unc.edu/apply/types-of-applications/transfer/>) provides information about the application process for transfer students.

**Advising and Community College Course Selection**

- For UGETC, Pre-Major, Elective, or GEC course options, please refer to the Comprehensive Articulation Agreement transfer course list (<https://www.nccommunitycolleges.edu/academic-programs/college-transferarticulation-agreements/comprehensive-articulation-agreement-caa/>).
- Students should work with their community college academic advisor to ensure appropriate course selection for AA/AS degree completion.

**Additional Resources**

- To find out how your N.C. community college coursework will transfer to UNC, please view the transfer credit list ([https://tes.collegesource.com/publicview/TES\\_publicview01.aspx?rid=ff81c5a2-3ec7-4b31-a7fb-04e2fd5f0345&aid=ca8ebc64-42ca-4a2d-b16b-f8f68bbb6767](https://tes.collegesource.com/publicview/TES_publicview01.aspx?rid=ff81c5a2-3ec7-4b31-a7fb-04e2fd5f0345&aid=ca8ebc64-42ca-4a2d-b16b-f8f68bbb6767)) for your community college campus.