

BIOLOGY–QUANTITATIVE BIOLOGY TRACK, A.S.-B.S.

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 (<https://catalog.unc.edu/undergraduate/ideas-in-action/global-language/>), Research and Discovery (<https://catalog.unc.edu/undergraduate/ideas-in-action/research-discovery/>), Lifetime Fitness (<https://catalog.unc.edu/undergraduate/ideas-in-action/lifetime-fitness/>), Communication Beyond Carolina (<https://catalog.unc.edu/undergraduate/ideas-in-action/communication-beyond/>), Campus Life Experience (<https://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 (<https://catalog.unc.edu/undergraduate/ideas-in-action/>).

This catalog also includes a complete list of requirements for the Biology–Quantitative Biology Track, B.S degree (<https://catalog.unc.edu/undergraduate/programs-study/biology-major-bs-quantitative-biology-track/#requirements-text>).

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) ²	4
MAT 272	Calculus II (UNC MATH 232) ²	4
BIO 111	General Biology I (UNC BIOL 101/101L + BIOL 103) ¹	4
BIO 112	General Biology II (UNC BIOL 101/101L + BIOL 104) ²	4
Total Hours		34

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 ³	3
CHM 251	Organic Chemistry I (UNC CHEM 261/262L)	4
Total Hours		13

Other Required Hours

Code	Title	Hours
ACA 122	College Transfer Success (UNC GENR --)	1
CHM 151	General Chemistry I (UNC CHEM 101/101L) ¹	4
CHM 152	General Chemistry II (UNC CHEM 102/102L) ¹	4
One of: ¹		4
MAT 151	Statistics I (UNC STOR 151) ²	
MAT 152	Statistical Methods I (UNC STOR 155) ²	
Elective		1
Total Hours		14

Code	Title	Hours
Total Community College Hours		61

¹ Required in the major.



² Counts in the major.

³ All NC Community College Language courses numbered 211 are approved to transfer to UNC-Chapel Hill as a course that completes the GBLB-LANG IDEAs in Action requirement.

UNC-Chapel Hill



IMPORTANT Note: Junior transfer biology B.S. students MUST meet with Dr. Gidi Shemer when planning their courses at Carolina. If choosing to complete a minor, please work closely with your academic advisor to ensure you can complete all requirements and to discuss sequencing.


Semester 5

Code	Title	Hours
BIOL 105L	Biological Research Skills ¹	1
BIOL--	Intermediate Level Core Course ^{1,2}	3-4
One programming course from: ¹		3-4
BIOL 222	 Introduction to Programming with Biological Data	
COMP 110	 Introduction to Programming and Data Science	
COMP 116	Introduction to Scientific Programming	
COMP 401	Foundation of Programming ^H	
Allied Science course #1 ^{1,3}		3
Lifetime Fitness (https://catalog.unc.edu/undergraduate/ideas-in-action/lifetime-fitness/)		1
Minor course #1, Elective, or IDEAs in Action Requirement [†]		3
Total Hours		14-16

^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 6

Code	Title	Hours
BIOL --	Biology laboratory course, Quantitative biology lab course, or Biology elective ^{1,5,6}	3-4
MATH 233	 Calculus of Functions of Several Variables ^{1, H, F}	4
PHYS 114	 General Physics I: For Students of the Life Sciences ^{1,4, F}	4



or PHYS 118  Introductory Calculus-based Mechanics and Relativity

Minor course #2, Elective, or IDEAs in Action Requirement [†]	3
Elective or IDEAs in Action Requirement	0-3
Total Hours	14-18

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

F FY-Launch class sections may be available. A FY-Launch section fulfills the same requirements as a standard section of that course, but also fulfills the FY-SEMINAR/FY-LAUNCH First-Year Foundations requirement. Students can search for FY-Launch sections in ConnectCarolina using the FY-LAUNCH attribute.

Semester 7

Code	Title	Hours
BIOL --	Two Courses from Biology laboratory course, Quantitative biology lab course, or Biology elective ^{1, 5, 6}	6-8
PHYS 115	 General Physics II: For Students of the Life Sciences ^{1, 4, F}	4
or PHYS 119	 Introductory Calculus-based Electromagnetism and Quanta	
Allied Science course #2		3
Minor course #3, Elective, or IDEAs in Action Requirement [†]		3
Total Hours		16-18

F FY-Launch class sections may be available. A FY-Launch section fulfills the same requirements as a standard section of that course, but also fulfills the FY-SEMINAR/FY-LAUNCH First-Year Foundations requirement. Students can search for FY-Launch sections in ConnectCarolina using the FY-LAUNCH attribute.

Semester 8

Code	Title	Hours
BIOL --	Two Courses from Biology laboratory course, Quantitative biology lab course, or Biology elective ^{1, 5, 6}	6-8
Minor course #4, Elective, or IDEAs in Action Requirement [†]		3
Minor course #5, Elective, or IDEAs in Action Requirement [†]		3
Electives or IDEAs in Action Requirements		0-6
Total Hours		15-18

[†] **IMPORTANT Note:** Junior transfer biology B.S. students MUST meet with Dr. Gidi Shemer when planning their courses at Carolina. If choosing to complete a minor, please work closely with your academic advisor to ensure you can complete all requirements and to discuss sequencing.

¹ Required in the major.

² Students must complete one Intermediate Level Course Courses from: BIOL 220, BIOL 240, BIOL 250, BIOL 260, An organismal structure and diversity course (see list on the degree requirements (<https://catalog.unc.edu/undergraduate/programs-study/biology-major-ba/#requirementstext>)).

³ Allied sciences electives are determined based on applicable courses taken at the Community College. For example, if any of the above

recommended Community College electives are taken, they may count as an allied science elective course. A full list of eligible courses can be found on the degree requirements (<https://catalog.unc.edu/undergraduate/programs-study/biology-major-bs/#requirementstext>).

⁴ PHYS 114 and PHYS 115 or PHYS 118 and PHYS 119 should not be separated; you should take both at either the community college or UNC. Do not take one at the community college and jump into the other at UNC.

⁵ Students must complete two laboratory courses, one of which must be a quantitative biology lab course, for a total of 8 hours. See degree requirements (<https://catalog.unc.edu/undergraduate/programs-study/biology-major-bs-quantitative-biology-track/#requirementstext>) for course lists and restrictions.

⁶ A choice of three biology electives (each of three or more credits, not including BIOL 213, BIOL 222, BIOL 253, BIOL 291, BIOL 292, BIOL 293, BIOL 294, BIOL 295, BIOL 296, BIOL 353, a second semester of BIOL 395, and BIOL 495), of which at least two must be chosen from the list of quantitative electives. See degree requirements (<https://catalog.unc.edu/undergraduate/programs-study/biology-major-bs-quantitative-biology-track/#requirementstext>) for course lists and restrictions.

UGETC Course List (A.S. Curriculum)

Code	Title	Hours
English Composition (two courses)		6
ENG 111	Writing & Inquiry ¹	
ENG 112	Writing/Research in the Disciplines ¹	
Humanities/Fine Arts (two courses from at least two different disciplines)		6
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) ²	
ENG 232	American Literature II (UNC ENGL 128) ²	
ENG 241	British Literature I (UNC ENGL 120) ²	
ENG 242	British Literature II (UNC ENGL 121) ²	
MUS 110	Music Appreciation (UNC MUSC 141)	
MUS 112	Introduction to Jazz (UNC MUSC 145)	
PHI 215	Philosophical Issues (UNC PHIL 101) ²	
PHI 240	Introduction to Ethics (UNC PHIL 160) ²	
Social/Behavioral Science (two courses from at least two different disciplines)		6
ECO 251	Principles of Microeconomics (UNC GENR 119) ³	
ECO 252	Principles of Microeconomics (UNC GENR 119) ³	
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)	
Mathematics (select two courses)		8

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)
Natural Sciences (select 8 SCH from the following courses): 8	
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)
Total Hours	34

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for your community college campus.

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 251² (UNC CHEM 261 + CHEM 262L) or CHM 252² (UNC CHEM 262 + CHEM 262L) can fulfill RESEARCH, and PED 110 (LFIT 998) can fulfill LIFE-FIT.

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

² 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.

³ 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-transfer-articulation-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-