

**Biology and Biology Education (A1040A)  
Associate in Science Pre-Major**

*Under the Comprehensive Articulation Agreement and the Independent Comprehensive Articulation Agreement, this template has been developed by university and community college faculty as a blueprint for guiding community colleges in developing programs for students who intend to major in Biology and Biology Education. Students who successfully complete this course of study and who meet the requirements for admission to the university are eligible to apply for admission to the major with junior standing.*

*All community colleges will not offer all pre-major programs, and course selections may vary. Check college catalogs for course and program offerings.*

<p><b>General Education Core (46 SHC)*</b> Forty-six semester hours of credit in general education core courses are required as outlined on the NCCCS Curriculum Standards for Associate in Science degree programs. The general education core includes study in the areas of humanities and fine arts, social and behavioral sciences, natural sciences and mathematics, and English composition.</p>												
<p><b>English Composition (6 SHC)</b> <i>Two English composition courses are required.</i> English 111, Expository Writing, is required as the first composition course. The second composition course must be selected from the following:</p> <table><tr><td>ENG 112</td><td>Argument-Based Research</td></tr><tr><td>ENG 113</td><td>Literature-Based Research</td></tr><tr><td>ENG 114</td><td>Professional Research and Reporting</td></tr></table>	ENG 112	Argument-Based Research	ENG 113	Literature-Based Research	ENG 114	Professional Research and Reporting						
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<p><b>Humanities/Fine Arts (9 SHC**)</b> <i>Three courses from three discipline areas are required.</i> One course must be a literature course. Two additional courses from the following discipline areas are required: art, drama, dance, foreign languages, interdisciplinary humanities, music, philosophy, and religion.</p>												
<p><b>Social/Behavioral Sciences (9 SHC)</b> <i>Three courses from three discipline areas are required.</i> One course must be a history course. Two additional courses from the following discipline areas are required: anthropology, economics, geography, political science, psychology, and sociology.</p>												
<p><b>Natural Sciences/Mathematics (22 SHC)</b> <i>Natural Sciences (16 SHC minimum):</i> The following courses are required:</p> <table><tr><td>BIO 111</td><td>General Biology (4 SHC)</td></tr><tr><td>CHM 151</td><td>General Chemistry I (4 SHC)</td></tr><tr><td>CHM 152</td><td>General Chemistry II (4 SHC)</td></tr></table> <p>One of the following courses is required:</p> <table><tr><td>BIO 112</td><td>General Biology II (4 SHC) <i>or</i></td></tr><tr><td>BIO 120</td><td>Intro. Botany (4 SHC) <i>or</i></td></tr><tr><td>BIO 130</td><td>Intro. Zoology (4 SHC)</td></tr></table> <p><b>Mathematics (6 SHC minimum):</b> <i>A minimum of two courses is required.</i> MAT 171 (or higher) Precalculus Algebra (3 SHC) The second course may be higher level mathematics course(s) or may be selected from among other quantitative subjects, such as computer science (CIS) and statistics (MAT).</p>	BIO 111	General Biology (4 SHC)	CHM 151	General Chemistry I (4 SHC)	CHM 152	General Chemistry II (4 SHC)	BIO 112	General Biology II (4 SHC) <i>or</i>	BIO 120	Intro. Botany (4 SHC) <i>or</i>	BIO 130	Intro. Zoology (4 SHC)
BIO 111	General Biology (4 SHC)											
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BIO 130	Intro. Zoology (4 SHC)											
<p><b><i>A college may award a diploma under the A1040A for completion of the entire general education core, as outlined, with a grade of "C" or better in each course.</i></b></p>												

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BOG approved 07/11/97; SBCC approved 07/18/97; revised 11/07/97; Proposed Revisions – TAC 11/07/03;  
SBCC approved 02/12/04; NCAC approved 12/01/04; revised 02/03/06; revised 05/24/06; TAC revised 11/17/06;  
TAC revised 05/23/07; TAC revised 09/26/07.*

**Other Required Hours (18-19 SHC)\*** One semester hour of credit may be included in a sixty-five semester hour credit associate in science program. The transfer of the 65<sup>th</sup> hour is not guaranteed. A minimum of 18 SHC of college transfer courses in general education, pre-major or elective courses is required.

A minimum of fourteen (14) SHC of college transfer courses in mathematics, natural sciences or computer science is required.

One of the following sequences of courses is recommended:

CHM 251 and 252      Organic Chemistry I & II (8 SHC) *or*

PHY 151 and 152      College Physics I & II (8 SHC) *or*

#PHY 251 and 252      General Physics I & II (8 SHC)

Four (4) hours of approved biology college transfer courses are recommended.

Four (4) additional hours of approved college transfer courses are required.

*#Only students who place into MAT 272 (Calculus II) may choose PHY 251 and 252.*

**Total Semester Hours Credit (SHC) in Program: 64-65**

\* **Students must meet the receiving university's foreign language and/or health and physical education requirements, if applicable, prior to or after transfer to the senior institution.**

\*\* **3 SHC in Speech/Communication may be substituted for 3 SHC in Humanities/Fine Arts. Speech/Communication may not substitute for the literature requirement.**

### ***Application to a University***

*Admission application deadlines vary; students must meet the deadline for the senior institution to which they plan to transfer. Upon successful completion of the associate degree, students who meet the requirements outlined in this pre-major articulation agreement will be eligible to be considered for admission as juniors to the signatory institutions offering the baccalaureate degree as listed at [www.northcarolina.edu/content.php/aa/planning/traditional.htm](http://www.northcarolina.edu/content.php/aa/planning/traditional.htm) or in the NC Independent Colleges and Universities Handbook which is available online at [www.ncicu.org/publications](http://www.ncicu.org/publications). Students are encouraged to contact the senior institution to confirm degree offerings.*

### ***Admission to the Major***

*Grade point average requirements vary, and admission is competitive across the several programs in Biology and Biology Education. Admission to teacher licensure programs requires satisfactory scores on PRAXIS I and II.*

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