Bachelor of Arts (BA)  Programs of Study for Biology Majors
Degree Code 208A

I.  GENERAL EDUCATION CURRICULUM.............................................................................................................................................44
Chemistry 1101-1110 and 1102-1120 fulfill the Science Inquiry Perspective. Math 1110 fulfills the Quantitative Literacy requirement.

II.  LANGUAGE (Completion of 6 semester hours at the *intermediate level, or higher) .................................................................................................................6

1040 __ and 1050 __ or 1060 __; or higher level courses counterpart.

*NOTE: Language 1010 and 1020 (or 1030) are prerequisites for the intermediate level courses. F1 1050 or 1060 may be used in General Education Perspectives depending upon choices.

III.  MAJOR REQUIREMENTS (Not including 12 semester hours already counted in I, above) ........................................................................................................................................53
2. 0 major GPA is required for graduation. Major GPA calculation will include all courses taken in the major department, plus any other courses under III. Minimum of 18 semester hours of courses taken to fulfill major requirements must be courses offered by Appalachian. No more than 46 semester hours of biology courses may be counted toward the BA Degree.

A.  Biology Core Requirements: 8 semester hours (must be completed before taking any other biology courses)

   BIO 1801 ______(4) Biological Concepts I (Co: CHE 1101)  AND  BIO 1802 ______(4) Bio Concepts II (Pre: BIO 1801 w/minimum "C")

B.  Required Biology Course: 9 semester hours (Pre: BIO 1801 & 1802 required for all additional BIO courses)

   BIO 2400 ______(3) Genetics (Pre: CHE 1102, MAT 1025) OR BIO 2700 ______(3) Human Gen (Pre: CHE 1102, MAT 1025)

   and one of the following Senior Capstones: (Pre: Senior Standing; WID)

   BIO 4501 ______(3) Independent Research [CAP]

   BIO 4910 ______(3) Capstone Internship in Biology [CAP]

C.  Additional Required Biology Courses: Choose 17 semester hours in courses numbered 2000 and above.

   (Any course used to meet a requirement above may not be used to meet a requirement here.)

   At least one course must be Junior Writing [WID] course. One course must be selected from each of the following areas:

   **Area A Cellular or Subcellular**

   BIO 2410 ______(1) Genetics Lab (Pre/Co: CHE 2400/2700)

   BIO 2600 ______(3) Cell Biology (Pre: CHE 1102)

   BIO 2610 ______(1) Cell Biology Lab Pre: MAT 1025; Pre/Co: CHE 2600)

   BIO 3308 ______(4) Microbiology (Pre: CHE 1102/1120)

   BIO 3800 ______(4) Molecular Bio [WID] (Pre: CHE2201/2101; ENG 2001)

   BIO 4564 ______(4) Microscopy

   BIO 4568 ______(4) Immunology (Pre: CHE 2400/2700)

   BIO 4572 ______(3) Virology (Pre: CHE 2600)

   **Area B Evolution or Ecology**

   BIO 2000 ______(4) Introduction to Botany

   BIO 2001 ______(4) Introduction to Zoology

   BIO 3302 ______(4) Ecology

   BIO 3312 ______(3) Environmental Studies [WID] (Pre: ENG 2001)

   BIO 3313 ______(4) Global Change Ecology [WID] (Pre: ENG 2001)

   BIO 3315 ______(3) Conservation Biology [WID] (Pre: ENG 2001)

   BIO 3320 ______(3) Air Pollution

   BIO 4571 ______(4) Plant/Insect Interaction

   BIO 4575 ______(4) Ecotoxicology [CAP] (Pre: 1 sem org CHE; WID; Sr stdg)

   BIO 4601 ______(4) Animal Behavior-Ethology

   **Area C Anatomy or Physiology**

   BIO 3301 ______(4) Human Sys Phys [WID] (Pre: CHE2201/2101; ENG 2001)

   BIO 3314 ______(4) Comparative Vertebrate Zoo [WID] (Pre: ENG 2001)

   BIO 4555 ______(4) Plant Physiology (Pre: CHE 1102/1120)

   BIO 4563 ______(3) Biology of Aging

   BIO 4569 ______(4) Invertebrate Zoology

   **Area D Biodiversity**

   BIO 2000 ______(4) Introduction to Botany

   BIO 3304 ______(4) Systematic Botany (Pre: CHE 2000)

   BIO 4551 ______(4) Ornithology

   BIO 4552 ______(4) Entomology

   BIO 4556 ______(4) Mycology

   BIO 4557 ______(4) Ichthyology

   BIO 4558 ______(3) Taxonomy of the Fleshy Fungi

   BIO 4559 ______(4) Mammalogy

   BIO 4560 ______(4) Herpetology

   BIO 4569 ______(4) Invertebrate Zoology

   **D. Required cognate courses: 31 semester hours**

   **Chemistry**

   CHE 1101/1110 ______(4) Intro to Chem I & lab

   CHE 1102/1120 ______(4) Intro to Chem II & lab (Pre: CHE 1101/1110)

   CHE 2201/2203 ______(4) Organic Chem I & lab (Pre: CHE 1102/1120)

   CHE 2202/2204 ______(4) Organic Chem II & lab (Pre: CHE 2201/2203 w/C-)

   **Mathematics**

   MAT 1110 ______(4) Calc w/ Analytical Geometry I (Pre: MAT 1025 w/C-)

   STT 2810 ______(3) Introduction to Statistics (Pre: MAT 1010)

   **Physics or Geography (minimum 8 hours)**

   (GHY 1010, 1020, 1040, PHY 1830 may be used in General Education Perspectives)

   **IV. MINOR REQUIRED...........................................................................................................................................................................12-21**

   Minimum of 9 semester hours of courses taken to fulfill minor requirements must be courses offered by Appalachian.

   **V. ELECTIVES (taken to total 128 hours for the degree)........................................................................................................................................4-13**

   2 semester hours of free electives must be outside the major discipline.