Bachelor of Science (BS) Teaching
Degree Code 209A

Program of Study for Biology Majors

BIOLOGY SECONDARY EDUCATION LICENSURE

I. GENERAL EDUCATION CURRICULUM ................................................................. 44


II. PROFESSIONAL EDUCATION REQUIREMENTS ............................................... 24

A minimum grade of C is required in each professional education course. CI 2300 & FDN 2400 are required prior to admission to Teacher Educ.

CI 2300 (2) Teaching and Learning in the Digital Age (Entry course to teacher education)
FDN 2400 (2) Critical Perspectives on Teaching and Learning (Pre or Co: CI 2300) (Entry course to teacher education)

III. MAJOR REQUIREMENTS (Not including 12 semester hours already counted in I, above) ........................................ 55-56

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.

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/min grade “C”)

B. Additional Required Biology Courses: 22-23 semester hours (Pre: BIO 1801 & 1802 required for all additional BIO courses)

BIO 2012 (3) Introduction to Evolutionary Biology
BIO 2400 (3) Genetics (Pre: BIO 1801, CHE 1102, MAT 1025)
BIO 2410 (1) Genetics Laboratory (Pre/Co: BIO 2400/2700)
BIO 3312 (3) Environmental Studies [WID] (Pre: CHE 2201 or 2101; ENG 2001)
BIO 3521 (1) Secondary Science Field Experience
BIO 3800 (4) Molecular Biology [WID] (Pre: 1 semester organic CHE; ENG 2001)
BIO 3301 (4) Human Systems Physiology [WID] (Pre: CHE 2201/2101; ENG 2001 OR BIO 4555 (4) Plant Phys (Pre: CHE 1102/1120)

Biodiversity: Choose one course from the following: 3-4 semester hours

CHE 1011/1110 (4) Intro. Chem I & lab
CHE 1102/1120 (4) Intro. Chem II & lab (Pre: CHE 1101/1110)
CHE 2101/2102 (4) Fundamentals of Organic Chem I & lab

C. Required Cognate Courses: 37 semester hours (12 semester hours of cognate courses are counted in general ed requirements.)

Chemistry
CHE 1101/1110 (4) Intro. Chem I & lab
CHE 1102/1120 (4) Intro. Chem II & lab (Pre: CHE 1101/1110)
CHE 2101/2102 (4) Fundamentals of Organic Chem I & lab

Mathematics
MAT 1110 (4) Calc w/Analytical Geom. I (Pre: MAT 1025 w/C-)
STT 2810 (3) Intro to Statistics (Pre: MAT 1010)

Physics
PHY 1103 (4) General Physics I (Co: MAT 1020 or 1025)
PHY 1104 (4) General Physics II (Pre: PHY 1103)

Geology
GLY 1101 (4) Intro to Physical Geology

G S 4403 (3) Tchg Sci in Mid/HS [WID] (Pre: ENG 2001)

IV. MINOR (optional)

V. ELECTIVES (taken to total 128 hours for the degree) .................................................. 4-5

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