

## Biology (B.S.)

Nina Parker, Associate Professor of Biology

Gregory Hall, Room 109B, (540) 665-4593

The Biology major offers a wide variety of opportunities for students to develop both fundamental and in-depth knowledge within the disciplines of the biological sciences.

Students will participate in comprehensive hands-on laboratory-based activities that will promote the development of technical skills used in biological science investigations.

The Biology major has been designed to allow students to pursue specialized interests in secondary biology education, field biology and the health-related professions including medicine, dentistry, veterinary medicine, physician assistant, physical therapy, occupational therapy and athletic training, and all related fields of study at the graduate level.

### Courses Required for the Biology Program

Course Title Credit Hours

BIO 121 General Biology I 4

BIO 122 General Biology II 4

BIO 260 Microbiology 4

BIO 312 Genetics 4

BIO 321 Ecology 4

BIO 409 Cell Biology 4

Biology electives\* at or above the 200 level 6-8

4 credit hours of coursework in which student's will experience 4 and participate in investigative research, writing styles of scientific disciplines, and develop technical skills used in scientific procedures.

The following courses are acceptable: BIO 191, BIO 192, BIO 491, BIO 492, CHEM 491, CHEM 492, ES 390, ES 421, or any courses approved by the department chair.

CHEM 121 General Chemistry I 4

CHEM 122 General Chemistry II 4

Chemistry at or above the CHEM 200 level 8

Total 50-52

See Undergraduate Catalog for specific semester rotation of classes

## Secondary Teacher Education Professional Studies Certificate (6-12 and K-12)

Mary Bowser, Professor of Education

Henkel Hall, Room 204, (540) 665-4590

This program contains the professional studies required by the Virginia Department of Licensure Regulations for secondary education teachers and K-12 endorsements.

Students may elect to add this program as a minor to their current or completed major in a liberal arts field so they could apply for a Virginia Teacher's license in that field.

Course Title Credit Hours

PSY 220 Child Development 3

EDU 221 Child Development Lab 1

EDU 301 Orientation to Teaching 3

EDU 343 Methods and Assessment in Middle/Secondary Schools 3

EDU 344 Methods and Management in Middle/Secondary Schools 3

RDG 425 Reading and Writing in the Content Area (6-12) 3

Pass PRAXIS II requirement before student teaching

EDU 441 Student Teaching in the Middle/Secondary Schools 9

Total 25\*

*\*Teacher endorsement area requirements may be satisfied through transcript analysis by the Education Department faculty. The outcome of this analysis may be possible recommendations for supplementary coursework in order for students to achieve compliance with Virginia Department of Education regulations.*