

## BIOLOGY MAJORS WORKSHEET 2009-2010

### Required Biology Core Courses:

BIOL 115N	General Biology I	4	_____
BIOL 116N	General Biology II	4	_____

BIOL 115N-116N must be passed with a C (2.0) or better to continue. Upon completion of Biology 116N, students must complete the following core of biology courses, some of which are pre-requisites or co-requisites for upper level biology courses (see catalog descriptions for individual courses). Biology 293 (Cell Biology) and 303 (Genetics) have Math 162 (Pre-calculus) and Chemistry 211 (Organic Chemistry) as pre- or co-requisites; STAT 130M (Elementary Statistics) is a pre-requisite for Biology 303. Biology 290 should be taken within two semesters of completing Biology 116N and Biology 405W should be taken during the junior or senior year. **All core courses must be passed with a C (2.0) or better.**

Evolution (292)	3	_____
Ecology (291)	3	_____
Cell Biology (293)	3	_____
Genetics (303)	3	_____
Senior Seminar (405W)	2	_____

**Prerequisites for 405W:** you must finish the required core courses listed above AND one Biology elective listed below (300-400 level)

### Required Biology Elective Courses:

Students must choose 16 elective hours from 300- and 400-level Biology course offerings. A minimum of three of the courses must have a laboratory/field component. A maximum of 4 credits of 200-level coursework may be counted toward the 16-hour total (e.g., students completing BIOL 250/251 will receive 4 elective credits and 1 lab credit). A maximum of 6 credits of unstructured coursework (internships, practica, undergraduate research, and independent study – see catalog for details) may be counted toward the 16-hour total. Students must pass all Biology electives with a C (2.0) or better (P = Passing for courses graded Pass/Fail).

**Asterisks (\*) indicate laboratory courses.**

A student who seeks a bachelor's degree from Old Dominion University must, in addition to meeting other requirements of the University, earn a **minimum of 25%** of the total number of credits required for the degree (for example, 30 credits in a 120-credit degree program) through on- or off-campus instruction. This must include a minimum of **12 hours** of upper-level courses in the department of the declared major. The responsibility for meeting the requirements for a degree rests with the student.

### Cellular/Molecular Biology

BIOL 315*	General Microbiology	5	_____	BIOL 423	Cellular and Molecular Biology	3	_____
BIOL 407*	Molecular Immunological Tech.	6	_____	BIOL 426*	Histology	5	_____
BIOL 409	Immunology	3	_____	BIOL 430	Microbial Physiology	3	_____
BIOL 410*	Immunology Laboratory	2	_____	BIOL 457	General Virology	3	_____
BIOL 416	Clinical Immunology	2	_____	BIOL 459	Genomics	3	_____
				BIOL 460	Frontiers Nanoscience & Nanotechnology	1	_____

### Organismal Biology (Human Emphasis)

BIOL 250 *	Human Anatomy & Physiology	4	_____	BIOL 461*	Human Cadaver Dissection	4	_____
BIOL 251*	Human Anatomy & Physiology	4	_____	BIOL 480*	Advanced Human Physiology Lab	2	_____
BIOL 314*	Developmental Biology	5	_____	BIOL 490*	Advanced Human Physiology	4	_____
BIOL 427	Neurobiology	3	_____				

### Organismal Biology (Non-Human Emphasis)

BIOL 221 *	Field Botany	4	_____	BIOL 431*	Mammalogy	5	_____
BIOL 307*	Invertebrate Zoology	4	_____	BIOL 438*	Dendrology	4	_____
BIOL 308*	General Botany	4	_____	BIOL 441	Animal Behavior	4	_____
BIOL 322	Ethnobotany	3	_____	BIOL 446	Comparative Biomechanics	3	_____
BIOL 330	Vertebrate Zoology	3	_____	BIOL 454*	Parasitology	4	_____
BIOL 400*	Flowering Plant Families	5	_____	BIOL 458*	Comparative Anatomy of the Chordates	5	_____
BIOL 401*	Entomology	4	_____	BIOL 473*	Herpetology	5	_____
BIOL 412*	Plant Physiology	4	_____	BIOL 474	Mushrooms	4	_____
BIOL 414	Plants of the Bible and The Koran	3	_____	BIOL 430	Microbial Pathogenesis	3	_____
BIOL 419	Wetland Plants	5	_____	BIOL 433*	Cave Biology	4	_____
BIOL 420*	Ichthyology	5	_____	BIOL 477	Origins of Biological Principles	3	_____
BIOL 421	Ornithology	3	_____				
BIOL 422*	Field Studies in Ornithology	3	_____				
BIOL 424*	Comparative Animal Physiology	5	_____				
BIOL 428	Physiological Ecology of Animals	3	_____				