

## OLD DOMINION UNIVERSITY 2008-2009 Catalog

### Bachelor of Science—Biochemistry Major

Students earning the AS, AA, or AA&S (or university parallel) degree from a Virginia Community College automatically satisfy the lower division general education requirements. **Courses marked with \* require a grade of C or better to transfer, even with the AS degree. The remaining lower division courses are automatically satisfied by the AS (including foreign language), regardless of the grade earned.** Additionally, courses in which a grade of C- or below were earned will not transfer. Therefore Community College degree holders may require additional credits to meet the 120 credit hour graduation minimum.

(AS=Associate degree)

The program leading to the Bachelor of Science with a major in biochemistry includes a diversity of fundamental and Advanced courses in organic, inorganic, analytical, and physical chemistry. Chemistry majors must earn a grade of C or better in CHEM 115N-116N, 211, 212, 213, 214, 321, 322, and must complete 12 credit hours 300-400 CHEM courses at Old Dominion University. Written permission by the chief departmental advisor or chair is required prior to taking upper level chemistry courses at other institutions. The grade point average in the major for chemistry majors is calculated based on Old Dominion University grades in all chemistry and biology courses.

#### FRESHMAN FIRST SEMESTER

		Credits	VCCS
CHEM 115N	Foundations of Chemistry I	4	<a href="#">CHM 111*</a>
MATH 163	Precalculus II	3	<a href="#">MTH 164*</a>
ENGL 110C	English Composition I	3	<a href="#">See Transfer Guide</a>
BIOL 115N	General Biology I	4	<a href="#">BIO 101*</a>

#### FRESHMAN SECOND SEMESTER

CHEM 116N	Foundations of Chemistry II	4	<a href="#">CHM 112*</a>
MATH 211	Calculus I	4	<a href="#">MTH 173,273*</a>
ENGL 111C	English Composition II	3	<a href="#">See Transfer Guide</a>
BIOL 116N	General Biology II	4	<a href="#">BIO 102*</a>
PHIL 110P or 120P or 150P		3	<a href="#">See Transfer guide</a>

#### SOPHOMORE FIRST SEMESTER

CHEM 211	Organic Chemistry Lecture I	3	<a href="#">CHM 241*</a>
CHEM 212	Organic Chemistry Lab I	2	<a href="#">CHM 243 or 245*</a>
MATH 212	Calculus II	4	<a href="#">MTH 174, 274*</a>
PHYS 231N	University Physics I	4	<a href="#">PHY 231, 241*</a>
CHEM 321	Analytical Chemistry Lecture	3	

#### SOPHOMORE SECOND SEMESTER

CHEM 213	Organic Chemistry Lecture II	3	<a href="#">CHM 242</a>
CHEM 214	Organic Chemistry Lab II	2	<a href="#">CHM 244 or 246</a>
MATH 312	Calculus III	4	<a href="#">MTH 275, 277</a>
PHYS 232N	University Physics II	4	<a href="#">PHY 232, 242*</a>
CHEM 322	Analytical Chemistry Lab	2	
CS 149D	Computer Skills	3	<a href="#">CSC 130200/EGR 125 ITP</a> <a href="#">120,130,132,136,156,230,232,236*</a>

#### JUNIOR FIRST SEMESTER

CHEM 331	Physical Chemistry Lecture I	3	
HIST 101H, 102H, 103H, 104H, or 105H		3	<a href="#">See Transfer guide</a>
ENGL 112L or 144L or FLET 100L		3	<a href="#">See Transfer Guide</a>
CHEM 441	Intro Biochemistry	3	
CHEM 442W	Intro Biochemistry Lab	2	

#### JUNIOR SECOND SEMESTER

CHEM 333	Physical Chemistry Lecture II	3	
CHEM 443	Intermediate Biochemistry	3	
CHEM 444	Intermediate Biochemistry Lab	2	
HIST 101H, 102H, 103H, 104H, or 105H		3	<a href="#">See Transfer guide</a>
BIOL 293	Cell Biology	3	

#### SENIOR FIRST SEMESTER

BIOL 303	Genetics	3	
Social Science Perspective		3	<a href="#">See Transfer guide</a>
General Education Cluster or Minor (cannot be Chemistry)		6-9	

#### SENIOR SECOND SEMESTER

Social Science Perspective		3	<a href="#">See Transfer guide</a>
Fine and Performing Arts Perspective		3	<a href="#">See Transfer guide</a>
CHEM 485	Chemistry Seminar	1	
(Satisfies oral communication requirement)			

General Education Cluster or Minor (cannot be Chemistry) or Electives \_\_\_\_\_ 7 \_\_\_\_\_

Requirements for graduation include a minimum cumulative grade point average of 2.00 overall and in the major, a grade of C or better in all courses required for the major, 120 credit hours, passage of the Exit Examination of Writing Proficiency, and completion of Senior Assessment. Additional hours may be required to meet the foreign language requirement. Biochemistry majors may not use the chemistry minor to fulfill upper-division general education requirements.