OLD DOMINION UNIVERSITY 2012-2013 Catalog
Bachelor of Science—Ocean and Earth Science Major
with VCCS equivalencies in (parentheses)
(* indicates not automatically waived with transferrable associates degree, C or better required for transfer. For specific science equivalencies for the various emphasis areas, please see transfer guide).

LOWER DIVISION GENERAL EDUCATION
(Required of all emphasis areas)
Skills
Written Communication
ENGL 110C 3 (ENG 111)
ENGL 211C, 221C, or 231C 3 (See transfer guide)
Oral Communication
(Satisfied by OEAS 441-444)
Mathematics
MATH 211 required 4 (MATH 173, 273)*
Language and Culture
Proficiency through 102F 0-6 (See transfer guide)
Information Literacy and Research
CS 120G, 121G, or IT 150G 3 (See transfer guide)
(Earth Science education track satisfied in major by TLED 430)
Ways of Knowing
Human Creativity 3 (See transfer guide)
ARTH 121A, ARTS 122A, MUSC 264A,
DANC 185A, THEA 241A, COMM/THEA 270A
Interpreting the Past 3 (See transfer guide)
HIST 100H, 101H, 102H, 103H,
104H, or 105H
Literature 3 (See transfer guide)
ENGL 112L, 114L, or FLET 100L
Philosophy & Ethics 3 (See transfer guide)
PHIL 110P, 120P, 140P, 230,
250E, 303E, 344E, 345E, 441E
The Nature of Science
CHEM 121N/122N-CHEM 123N/124N required
4 (CHM 111 and 112)*
Human Behavior 3 (See transfer guide)
AAST 100S; ANTR 110S; COMM 200S; CRJS 215S; ECON 200S,
201S, 202S; FIN 210S, GEOG 100S, 101S; POLS 100S, 101S,
102S; PSYC 200S, 201S; SOC201S; WMST 201S
Impact of Technology 3 (See transfer guide)
COMM 372T, CS 300T, DNTH 440T, or ENGL 307T, GEOG
306T, HIST 300T, 304T, 386T, 389T, IT 360T, MUSC 335T, SCI
302T, PHIL 383T, POLS 350T, STEM 110T, 370T, or WMST
390T (satisfied by TLED 430 for earth science education track)
Students must select one of the following options:
Course Requirements-Biological Oceanography Emphasis
BIOL 115N General Biology I 4 (BIO 101)*
BIOL 116N General Biology 2 4 (BIO 102)*
OEAS 111N Physical Geology 4 (GOL 105)*
MATH 211-212 Calculus I and II 8 (MTH 173/273 and
174/274)*
Course Requirements-Chemical Oceanography Emphasis
BIOL 115N General Biology I 4
BIOL 116N General Biology II 4
CHEM 121N/122N-123N/124N College Chemistry 8
(Satisfies natural science perspective)
OEAS 111N Physical Geology 4
MATH 211-212 Calculus I and II 8
OEAS 306 Oceanography 3
STAT 330 Intro to Probability and Statistics 3
or STAT 310 Intro Data Analysis
OEAS 310 Global Earth Systems 3
OEAS 406 Matlab 1
OEAS 440 Biological Oceanography Lec/Lab 4
Biol 292 Evolution 3
BIOL 415 Marine Ecology 3
CHEM 211, 212, 213 Organic Chemistry Lec/Lab 8
CHEM 441 Biochemistry Lecture 3
Electives (from OEAS 403W, 404, 410, 412, 414, 420) 6
OEAS 441-442W Ocean and Earth Science Field Study 6
(satisfies oral communication requirement)
Course Requirements-Physical Oceanography Emphasis
BIOL 115N General Biology I 4
BIOL 116N General Biology II 4
CHEM 121N/122N-123N/124N College Chemistry 8
(Satisfies natural science perspective)
OEAS 111N Physical Geology 4
MATH 211-212 Calculus I and II 8
OEAS 306 Oceanography 3
PHYS 231N-232N University Physics I and II 8
STAT 330 Intro to Probability and Statistics 3
or STAT 310 Intro Data Analysis
OEAS 310 Global Earth Systems 3
OEAS 406 Matlab 1
OEAS 410 Chemical Oceanography Lecture/Lab 4
CHEM 211/213 Organic Chemistry Lecture 6
CHEM 331/333 Physical Chemistry Lecture 6
CHEM 332W Experimental Physical Chemistry 6
or 452 Inorganic Chemistry Laboratory 2
CHEM 351 Inorganic Chemistry 3
Electives (from OEAS 403W, 412, 413, 418) 6
OEAS 441-442W Ocean and Earth Science Field Study 6
(satisfies oral communication requirement)
Virginia Board of Education prescribed assessments:

- Virginia Communication and Literacy Assessment (VCLA) – a passing composite score of 470 is required on this reading and writing assessment
- PRAXIS II Earth Science: Content Knowledge (test code: 0571) – passing score of 156 is required

To review more information on the Virginia Board of Education prescribed assessments visit the Teacher Education Services website, www.odu.edu/tes.

Graduation

Requirements for graduation include completion of ENGL 110C, ENGL 211C or 221C or 231C, and the writing intensive (W) course in the major with a grade of C or better, completion of the Senior Assessment, a minimum cumulative 2.75 GPA, in the major area, and in the professional education core, with no grade less than a C in the major and C- in the professional education core; successful completion of the Teacher Candidate Internship and a minimum of 123 credit hours, which must include both a minimum of 31 credit hours overall and 12 credit hours in upper-level courses in the major program from Old Dominion University. Note that a C (2.0) must be earned in all Ocean, Earth and Atmospheric Sciences courses used to satisfy departmental requirements.

The curriculum is as follows:

- BIOL 115N General Biology 1
- CHEM 121N/122N-123N/124N College Chemistry
- OEAS 111N-112N Physical Geology
- MATH 211-212 Calculus I and II
- PHYS 231N-232N University Physics I and II
- STAT 330 Intro to Probability and Statistics or STAT 310 Intro Data Analysis
- OEAS 306 Oceanography
- OEAS 310 Global Earth Systems
- OEAS 313 Mineralogy
- OEAS 314 Petrology
- OEAS 320 Sedimentology/Stratigraphy
- OEAS 344W Geomorphology
- OEAS 406 Matlab
- OEAS 411 Structural Geology
- OEAS 420 Hydrogeology or OEAS 430 Intro to Geophysics
- OEAS elective from: OEAS 303, 368, 403W, 408, 412, 413, 414, 415, 419, 420, 430, 431, 446
- OEAS 441-442W Ocean and Earth Science Field Study (satisfies oral communication requirement)

Course Requirements—Earth Science Education Emphasis

Admission

Students must first declare the Ocean and Earth science major, Earth science education track with the chief departmental advisor. All students must apply for and be admitted into the approved earth science teacher preparation program. Students must meet the required criteria for admission by passing the Virginia Board of Education prescribed assessments and earn the minimum required grade point averages (GPA).

Virginia Board of Education prescribed assessments:

- A passing PRAXIS I composite score of 532 or
- Qualifying SAT or ACT test scores or
- PRAXIS I Math test score of 178 and a composite Virginia Communication and Literacy (VCLA) score of 470 or
- SAT Mathematics test score of 530 and a composite Virginia Communication and Literacy (VCLA) score of 470 or
- ACT Mathematics test score of 22 and a composite Virginia Communication and Literacy (VCLA) score of 470

To review more information on the Virginia Board of Education prescribed assessments, visit the Teacher Education Services website, www.odu.edu/tes.

Required grade point averages (GPA):

- A cumulative GPA of 2.75 is required.
- A major/content GPA of 2.75 is required - all Ocean, Earth and Atmospheric Sciences courses and all other science and mathematics content courses must be passed with a grade of C (2.0) or higher.
- A professional education GPA of 2.75 is required – all professional education courses must be passed with a grade of C- or higher.

Although students may enroll in a limited number of education courses, students must be admitted into the approved earth science teacher preparation program prior to enrolling in any instructional strategies practicum education course. Students must also meet with an education advisor in the Office of Teacher Education Services.

Continuance

Students must maintain a cumulative GPA of 2.75, a major/content GPA of 2.75 and a professional education GPA of 2.75. Ocean, Earth and Atmospheric Sciences content courses must be passed with a grade of C (2.0) or higher. Courses in the professional education core must be completed with a grade of C- or higher for continuance. A professional education GPA of 2.75 is required for continuance. Students must take and pass the Virginia Communication and Literacy Assessment (VCLA) and the PRAXIS II Earth Science Content examination prior to or while enrolled in the instructional strategies course. All assessments must be passed prior to the start of the Teacher Candidate Internship Orientation session.