

EARTH SCIENCE

College of Science and Health
Bachelor of Science; **EARTH SCIENCE**
Incoming students Fall 2011 (UCC)

UCC REQUIREMENTS [40-41 credits]

AREA 1: PERSONAL WELLBEING [3]

_____ 3 cred.

AREA 2: EXPRESSION [9]

a. Arts/Communication

COMM 1100 Communication in Action 3 cred.

b. Writing

ENG 1100 College Writing 3 cred.

c. Literature

_____ 3 cred.

AREA 3: WAYS OF KNOWING [19-20]

a. Philosophical Perspectives

_____ 3 cred.

b. Historical Perspectives

_____ 3 cred.

c. Social/Behavioral Science (2 different disciplines)

_____ 3 cred.

_____ 3 cred.

d. Scientific Perspectives

PHYS 1700 General Astronomy 4 cred.

e. Quantitative Thinking

MATH 2300 Statistics 4 cred.

AREA 4: DIVERSITY & JUSTICE [3]

- *Must complete 18 credits in UCC prior to taking Area 4*

_____ 3 cred.

AREA 5: CIVIC & COMMUNITY ENGAGEMENT [3]

- *MUST COMPLETE Area 4 before taking Areas 5&6*
 ENV 3010 Field Experience 3 cred.

AREA 6: GLOBAL AWARENESS [3]

- *MUST COMPLETE Area 4 before taking Areas 5&6*
 ENV 3170 Global Climate Change 4 cred.

FIRST YEAR SEMINAR [1.5]

- *Required for 1st year students & transfers with less than 12 credits*
_____ 1.5 cred.

INTENSIVE REQUIREMENTS

These courses can be double counted within the UCC, the major, or as free electives. If you are a transfer with an AA/AS degree you must take one WI course and zero TI courses.

WRITING INTENSIVE (WI) *W

- *The first WI course must be Area 2 College Writing*
- *At least one course must be at the 300 or above level*
 ENG 1100 College Writing 3 cred.
 _____ 3 cred.
 _____ 3 cred.
 _____ 3 cred.

TECHNOLOGY INTENSIVE (TI) *T

- ENV 3170 Global Climate Change 4 cred.
 _____ 3 cred.

UNIVERSITY REQUIREMENTS

FOREIGN LANGUAGE [6]

- _____ 3 cred.
_____ 3 cred.

EARTH SCIENCE: minimum of 33-34 credits and a grade point average of 2.000 must be earned in this major to graduate.

CORE COURSES [18 cred.]

- ENV 1000 Fundamentals of Earth Science
- ENV 1150 General Geology
- ENV 2170 Oceanography
- ENV 2200 Earth through Time
- ENV 2500 Meteorology
- ENV 3050 Mineralogy & Petrology

MAJOR CO-REQUIREMENTS [3-4 cred.]

- MATH 1160 Pre-Calculus
- MATH 1350 Algebra Trigonometry & Functions

MAJOR EARTH SCIENCE ELECTIVES [12 cred.]

- ENV 3010 Field Experience
(meets Area 5)
- ENV 3170 Global Climate Change**^T
(meets Area 6 and TI)
- ENV 3200 Geochemistry
- ENV 3270 Geomorphology
- ENV 3400 Environmental Law
- ENV 3990 Special Topics
- ENV 4700 Hydrology and the Environment
- GEO 4010 Computer Cartography (meets TI)
- GEO 4030 Geographic Information Systems (meets TI)

HIGHLY RECOMMENDED:

- CS 1300 Introduction to Computers/BASIC or
- CS 2010 Computer Lit; Micro Applications

SUGGESTED SEQUENCE OF COURSES

1st semester		Credits	2nd semester		Credits
ENV 1000	Fundamentals of Earth Science	3	ENV 2200	Earth Through Time	4
ENV 1150	General Geology (<i>meets Area 3d</i>)	4	MATH 1160 or MATH 1350	Pre-Calculus or Algebra, Trig. & Functions	3-4
ENG 1100	College Writing (<i>meets Area 2b</i>)	3	-----	Area 1, 2, or 3 course	3
-----	Area 1, 2, or 3 course	3	COMM 1100	Comm. In Action (<i>meets Area 2a</i>)	3
WPU 101	First-Year Seminar	1.5	-----	Area 1, 2, or 3 course	3
Credits		14.5	Credits		16-17
3rd semester			4th semester		
PHYS 1700	General Astronomy	4	ENV 3050	Mineralogy & Petrology	3
ENV 2500	Meteorology	3	-----	Area 1, 2, or 3 course	3
MATH 2300	Statistics (<i>meets Area 3e</i>)	4	-----	Area 1, 2, or 3 course	3
-----	Foreign Language	3	-----	Foreign Language	3
			-----	Area 1, 2, or 3 course	3
Credits		14	Credits		15
5th semester (Junior year)			6th semester (Junior year)		
ENV 2170	Oceanography	4	-----	EARTH SCIENCE ELECTIVE for teaching candidates or Field Experience (<i>meets Area 5</i>) for non-teaching candidates	3
-----	Area 4 Course	3	ENV 3170	Global Climate Change (<i>meets Area 6 & TI</i>)	4
ENV	EARTH SCIENCE ELECTIVE	3-4	If you are a Teaching Candidate then take teaching requirements		9
If you are a Teaching Candidate then take 2 teaching requirements		6	If you are NOT a Teaching Candidate then take a WI, TI, Minor, Free Elective or Recommended Computer Science course		9
If you are NOT a Teaching Candidate then take a WI, TI, Minor, Free Elective or Recommended Computer Science course		6			
Credits		16-17	Credits		16
7th semester (Senior year)			8th semester (Senior year)		
ENV	EARTH SCIENCE ELECTIVE	3-4	ENV	EARTH SCIENCE ELECTIVE	3-4
If you are a Teaching Candidate then take teaching requirements		12	If you are a Teaching Candidate then take teaching requirements		12
<i>Teaching Candidates will be completing Practicum this semester</i>			<i>Teaching Candidates will be completing Student Teaching this semester</i>		
If you are NOT a Teaching Candidate then take a WI, TI, Minor, Free Elective or Recommended Computer Science course		12	If you are NOT a Teaching Candidate then take a WI, TI, Minor, Free Elective or Recommended Computer Science course		9-12
Credits		15-16	Credits		15-16

ADDITIONAL RECOMMENDATIONS

- For students planning to go on to graduate school or professional careers as geoscientists, the General Physics I/II and General Chemistry I/II sequence are **highly recommended**. These students are also encouraged to take MATH 1600 Calculus I.
- Students who plan to pursue graduate studies in an Earth Science should seriously consider taking an appropriate field course. Many field courses are available at universities throughout the country and abroad, and information about them can be obtained from a member of the faculty. These courses customarily carry between 3 and 6 credits and are conducted during the summer months.
- Students who plan to enter into K-12 teaching must double major in education. Contact the College of Education for an advisor assignment and appropriate course of study to complete certification and teaching license. In order for you to student teach, you must pass the Praxis exam. This exam contains basics of Chemistry, Physics and Biology as well as Earth and Planetary Sciences. Please see COE at: <http://www.wpunj.edu/coe/>
- Students interested in a four-year course of study may also elect to take several courses during the Pre-Session and Summer Sessions to reduce the load during regular fall and spring semesters.
- The University Core Curriculum requires that students take 4 Writing Intensive and 2 Technology Intensive Courses. Earth Science majors should, if possible, take courses within the major or co-requirements that are designated as either Writing or Technology Intensive.