

MILLERSVILLE UNIVERSITY

Student Name: _____ Student I.D.# _____

DEGREE: BS	MAJOR REQUIREMENTS FOR A BS DEGREE IN ENVIRONMENTAL EARTH AND OCEAN SCIENCES
MAJOR: EEOS	Total credit hours required: 120.0 minimum
OPTION:	

REQUIREMENTS AND POLICIES FOR THE BS GEOLOGY MAJOR

A. Policies for Admission to the Major

1. New students (freshmen and transfers) must be admitted to the EEOS major by the Office of Admissions upon admission to the University.
2. Admission into the EEOS major from other departments is upon approval of the chair person of the Earth Sciences Department.
3. Non-degree and continuing education students must be admitted to the EEOS major by the Office of Admissions.

B. Policies for Retention in the Major

In order to remain a major in good academic standing in the Department of Earth Sciences, a student must earn a grade of at least a C- in the following courses: ESCI 221 and ESCI 261; and, if applicable, CHEM 111, MATH 161, and PHYS 131.

C. Policies for Completion of the Major

Completion of all Departmental and University curricular requirements.
No more than one "P" or "D" course can be counted toward major requirements.
Per University policy, cumulative GPA in major courses must be 2.0 or higher.

Note to the student: *This form is provided as a guide. It is your responsibility to consult regularly with your advisor to be aware of changes and curriculum details which are not incorporated on this form.*

MAJOR SEQUENCE AND DEGREE REQUIREMENTS

Major: **BS ENVIRONMENTAL EARTH AND OCEAN SCIENCES** When applicable, up to six of the **REQUIRED RELATED** courses may be credited toward the Liberal Arts Core subject to normal distribution rules.
 Option:
 Major Field Requirements: **47.0-55.0 credits**
 Other Requirements: **13.0-18.0 credits**

Course No.	Short Title	C.H.	Grade	Course No.	Short Title	C.H.	Grade
ENVIRONMENTAL EARTH AND OCEAN SCIENCES CORE (20-21 credits)				REQUIRED RELATED Concentration 1 (13-18 credits)			
ESCI XXX	Any 100/200-level ESCI course	3.0-4.0	_____	MATH 160	Precalculus	4.0	_____
ESCI 221	Physical Geology	4.0	_____	Take another 3 courses from the list below for a minimum of 9 additional credits:			
ESCI 245	Environmental Meteorology	3.0	_____	OSEH 120	Fund. Safety, Hlth. & Env. Iss.	3.0	_____
ESCI 261	Introduction to Oceanography	4.0	_____	ITEC 120	Energy and Power Systems	3.0	_____
ESCI 322	Environmental Hydrology	3.0	_____	ITEC 281	Metall. Materials & Prod. Meth.	3.0	_____
ESCI 385	Global Clim Chg: Sci & Policy (P)	3.0	_____	ITEC 304	Enrgy, Sustain. & Environ. (P)	3.0	_____
METHODS COURSES (6 credits)				GEOG 202	Environmental Sustainability	3.0	_____
Choose 2 courses from the following list				GEOG 130	Intro to Environmental Science	3.0	_____
ESCI 281	GIS Applications for Earth Sci	3.0	_____	GEOG 230	Physical Geography	3.0	_____
ESCI 380	Remote Sens. and Image Interp.	3.0	_____	GEOG 281	Map Interp. & Analysis	3.0	_____
ESCI 423	Applied Geophysics	3.0	_____	GEOG 295	GIS I: Vector Data Analysis	3.0	_____
FIELD COURSE (3-6 credits)				GEOG 296	GIS II: Raster Data Analysis	3.0	_____
Choose 1 course from the following list				MATH 151	Calc. for Mgmt., Life, & Soc. Sci.	4.0	_____
ESCI 267	Field Methods	3.0	_____	MATH 161	Calculus I	4.0	_____
ESCI 422	Geological Field Mapping	3.0-6.0	_____	MATH 211	Calculus II	4.0	_____
ESCI 465	Biological Oceanography	3.0	_____	MATH 235	Survey of Statistics	3.0	_____
SELECT ONE CONCENTRATION FROM THE FOLLOWING LIST (18-24 credits)				PHYS 131	Physics I with Algebra	4.0	_____
Concentration 1: Environmental Geology (22 credits)				PHYS 132	Physics II with Algebra	4.0	_____
ESCI 222	Historical Geology	4.0	_____	PHYS 231	Physics I with Calculus	5.0	_____
ESCI 225	Geomorphology	3.0	_____	PHYS 232	Physics II with Calculus	5.0	_____
ESCI 321	Structural Geology	4.0	_____	CHEM 111	Introductory Chemistry I	4.0	_____
ESCI 326	Sedimentation and Stratigraphy	4.0	_____	CHEM 112	Introductory Chemistry II	4.0	_____
ESCI 327	Earth Materials	4.0	_____	CHEM 235	Short Course in Organic Chem.	4.0	_____
ESCI 426	Grndwtr Resources & Contamin.	3.0	_____	CHEM 251	Inorganic Chemistry	3.0	_____
Concentration 2: Environmental Ocean Sciences (18 credits)				CHEM 375	Environmental Chemistry	4.0	_____
ESCI 363	Chemical Oceanography	3.0	_____	BIOL 100	General Biology	3.0	_____
ESCI 366	Marine Resources & Policy (P)	3.0	_____	BIOL 101	Foundations of Biology	4.0	_____
ESCI 369	Physical Oceanog. and Climate	3.0	_____	BIOL 211	Concepts of Zoology	4.0	_____
ESCI 464	Ocean Ecosystems (W)	3.0	_____	BIOL 221	Concepts of Botany	4.0	_____
ESCI 466	Environmental Oceanography	3.0	_____	CSCI 161	Introduction to Programming I	4.0	_____
ESCI 468	Ocean Data Anal. & Present.	3.0	_____	CSCI 162	Introduction to Programming II	4.0	_____
Concentration 3: Environmental Earth Sciences (21-24 credits)				Concentrations 2 and 3 (16 credits)			
Choose any 2 courses from Concentration 1				CHEM 111	Introductory Chemistry I	4.0	_____
Choose any 2 courses from Concentration 2 (except ESCI 366)				MATH 160	Precalculus	4.0	_____
ESCI 226	Geolog. Erth&Energy Resources	3.0	_____	MATH 161	Calculus I	4.0	_____
ESCI 366	Marine Resources & Policy (P)	3.0	_____	PHYS 131	Physics I with Algebra	4.0	_____
ESCI XXX	Any 300/400-level ESCI course	3.0-4.0	_____	Recommended minors: Biology, Chemistry, Computer Science, Data Science, Env. Chemistry, Env. Policy and Regulation, Env. Studies, Geospatial Applications, Industrial and Env. Health, Land Use, Mathematics, Occupational Safety and Env. Health, Physics, Quantitative Methods in Env. Science, Sustainability Studies, Water Resources			
				All students are strongly encouraged to pursue an internship or research experience (consult your advisor for further information)			