

# Department of Earth Sciences



## Student Handbook 2020 – 2021

Earth Sciences    Geology    Meteorology

Ocean Sciences & Coastal Studies

Earth Sciences Education

**Your link  
to the future.....**

**[www.millersville.edu/esci/](http://www.millersville.edu/esci/)**

Department of Earth Sciences  
2020 – 2021  
Student Handbook

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August 21, 2020

Greetings Earth Sciences Student:

On behalf of all the faculty and staff of the Department of Earth Sciences, I would like to welcome you to Millersville University. While we are all going through an unusual and somewhat disruptive time together, know that your success remains our central mission. There is always opportunity during times of disruption, and we are continually seeking those that we can entrain to provide you with a better educational experience.

You are about to embark on an exciting journey, one that will help you realize your goals and aspirations and prepare you for a rich and fulfilling career in the earth sciences. Whether you come to Millersville seeking a degree in meteorology, ocean sciences and coastal studies, geology, earth sciences or secondary education in the earth and space sciences, your home for the next four years will be the Department of Earth Sciences. It's a good place to be!

The faculty and staff are committed to helping you achieve your career goals by providing a sound educational experience, serious and responsible advisement and personal mentoring. Get to know the faculty and staff and meet regularly with your adviser. Our doors are always open, be it in-person or online during this interim period. We are confident that if you immerse yourself in your studies, seek out opportunities to expand your knowledge base and develop additional skills, consult frequently with your adviser and become involved in departmental clubs and activities, that your experience will indeed be rewarding and will lead to a successful career.

The student handbook accompanying this letter has been prepared for students majoring or minoring in any of the programs offered in the Department of Earth Sciences. The handbook will enable you to become more familiar with the department and help you navigate your way through the curriculum. We suggest that you take the time to look through the entire handbook and use it as a guide during your time here. You will find additional information in the Millersville University Undergraduate Catalog, which can be found on the Registrar's Office website, the Millersville Student Handbook, and the department website ([www.millersville.edu/esci](http://www.millersville.edu/esci)). We recommend that you use these resources. Do not hesitate to see your adviser or me if you have questions, and we will do everything we can to assist you.

We wish you much success in your chosen earth sciences program. Make the most of your undergraduate experience. Have fun and take it all in, but don't forget the real reason you are here. Enjoy our modern facilities and take full advantage of them. We hope you will have a wonderful time while at Millersville University and will one day look back at your undergraduate years as among the best of your life.

Sincerely,



Richard D. Clark  
Department Chair

# EARTH SCIENCES

*From where we've been...*

In 1967, Millersville State College, as Millersville University formerly was called, created a Division of Science and Mathematics. Four new departments – Biology, Chemistry, Physics and Earth Sciences – were founded at that time. Later, departments of Computer Science and Nursing were added to make, along with Mathematics, a total of seven departments in what became the School of Science and Mathematics. Dr. William M. Jordan was hired to be the first chairperson of the new Department of Earth Sciences. Later, Dr. Paul H. Nichols, for whom Nichols House is named, served as chairperson for more than 20 years. Dr. Russell L. DeSouza was chair for a short interim period, followed by Dr. Charles K. Scharnberger, who presided as chair for nine years until his retirement. The current chairperson is Dr. Richard D. Clark. In the summer of 2015, the School of Science and Mathematics became the College of Science and Technology, and added the departments of Geography and Applied Engineering, Safety and Technology, bringing to nine the total number of departments in the College.

From the beginning, the department recognized the multi-disciplinary nature of the Earth Sciences, and therefore sought faculty to develop programs in geology, meteorology and oceanography. At first, only two degree programs were offered by the department: a B.A. degree in Earth Sciences and a B.S.E. degree in Earth Sciences Education. In 1978, a B.S. degree program, with options in geology, meteorology and oceanography, was introduced. Nine years later, these three options became separate B.S. programs, bringing the total number of degree programs offered by the department to five. Minors in each of the major areas also were initiated at that time.

*To what we are...*

Presently, the department has ten faculty members - four in meteorology, three in geology, two in oceanography and one in emergency management, as well as one staff meteorologist, a systems administrator and a department secretary. The department currently has over 200 majors distributed among the five degree programs.

The department occupies space in each of the four buildings that form the James P. and Tasia K. Argires Science and Technology Complex, which houses the College of Science and Technology. The meteorology program is housed on the fourth floor of the Joseph A. Caputo Hall, completed in 1999. Geology labs, classrooms and the seismology lab are found on the ground floor of the recently renovated Roddy Science Hall and on the ground floor of Brossman Hall. Brossman also is where the oceanography lab, several faculty offices, and the main department offices are located.

The department faculty members are committed to offering undergraduate and graduate students learning experiences of the highest quality. While teaching, advising and mentoring undergraduate students remains our principal forté, students are exposed to research experiences that offer tremendous challenges and opportunities for the serious student. We are firmly committed to providing students with a thorough, contemporary, and comprehensive curriculum that is rich in the scientific discipline, couched in mathematics, steeped in the latest computer applications and technology and enveloped within a solid liberal arts core. You can be proud of your affiliation with the MU Department of Earth Sciences.

*And where we are going...*

The department has sustained solid growth since its founding. We will continue to provide each student with a contemporary and comprehensive curriculum that reflects long-term trends in the scientific disciplines, while moving toward a more holistic, integrated Earth systems approach so that our graduates gain the credentials needed to serve science and society in the 21<sup>st</sup> century. We will remain dedicated to creating authentic learning experiences for students by exposing them to the latest scientific equipment and technology, both in the classroom and in research settings. We are firmly committed to an educational experience that is both deep and broad, and tuned to address the workforce needs of today and tomorrow.

## **Phone - E-mail Directory – Office Location**

Dr. Richard Clark Chair, Department of Earth Sciences Professor of Meteorology <a href="mailto:Richard.Clark@millersville.edu">Richard.Clark@millersville.edu</a>	CAP	409	717-871-7434
Dr. Alex DeCaria Professor of Meteorology <a href="mailto:Alex.DeCaria@millersville.edu">Alex.DeCaria@millersville.edu</a>	CAP	410	717-871-4739
Dr. Sam Earman Associate Professor of Geology <a href="mailto:Sam.Earman@millersville.edu">Sam.Earman@millersville.edu</a>	BROSS	108	717-871-4336
Mr. David Fitzgerald Distributed Systems Specialist, II <a href="mailto:David.Fitzgerald@millersville.edu">David.Fitzgerald@millersville.edu</a>	CAP	411	717-871-7436
Dr. Duane Hagelgans Associate Professor of Emergency Management <a href="mailto:Duane.Hagelgans@millersville.edu">Duane.Hagelgans@millersville.edu</a>	LANC	202	717-871-7536
Dr. Ajoy Kumar Professor of Ocean Sciences and Coastal Studies <a href="mailto:Ajoy.Kumar@millersville.edu">Ajoy.Kumar@millersville.edu</a>	BROSS	117	717-871-4356
Dr. Lynn Marquez Professor of Geology <a href="mailto:Lynn.Marquez@millersville.edu">Lynn.Marquez@millersville.edu</a>	BROSS	107	717-871-4339
Dr. Todd Sikora Professor of Meteorology <a href="mailto:Todd.Sikora@millersville.edu">Todd.Sikora@millersville.edu</a>	CAP	404	717-871-7435
Dr. Robert Vaillancourt Associate Professor of Ocean Sciences and Coastal Studies <a href="mailto:Robert.Vaillancourt@millersville.edu">Robert.Vaillancourt@millersville.edu</a>	BROSS	106	717-871-4190
Dr. Talor Walsh Associate Professor of Geology <a href="mailto:Talor.Walsh@millersville.edu">Talor.Walsh@millersville.edu</a>	BROSS	109	717-871-4270
Dr. Sepideh Yalda Professor of Meteorology <a href="mailto:Sepi.Yalda@millersville.edu">Sepi.Yalda@millersville.edu</a>	CAP LANC	405 201	717-871-7433 717-871-7550
Marty Devlin Secretary <a href="mailto:Martha.Devlin@millersville.edu">Martha.Devlin@millersville.edu</a>	BROSS	113	717-871-4359

**BROSS**: Brossman; **CAP**: Caputo; **LANC**: Lancaster House

# Department of Earth Sciences

## **Major Programs:**

Earth Sciences (B.A.).....	120 s.h.
Earth Sciences (B.A.)..... Geology Option	120 s.h.
Earth Sciences (B.S.E.) ..... (Certification in Secondary Education)	126 s.h.
Geology (B.S.) .....	120 s.h.
Geology (B.S) ..... Environmental Geology Option	120 s.h.
Meteorology (B.S.) .....	120 s.h.
Ocean Sciences and Coastal Studies (B.S.) .....	120 s.h.
Ocean Sciences and Coastal Studies (B.S.) ..... Physical Oceanography Option	120 s.h.

## **Multidisciplinary Studies:**

Environmental Hazards and Emergency Management (B.A.).....	120 s.h.
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## **Minor Programs:**

Earth Sciences.....	21 s.h.
Environmental Hazards and Emergency Management.....	18 s.h.
Geology ..... (Track 1, BSE Earth Sciences Majors)	19 s.h.
..... (Track 2, all other majors)	20 s.h.
Heliophysics and Space Weather.....	18 s.h.
Hydrology Minor.....	18 s.h.
Meteorology .....	19 s.h.
Oceanography .....	19 s.h.

## **Option:**

Broadcast Communication Option..... (Suggested for Meteorology majors interested in enhancing their communication skills.)	20 s.h.
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## **Other Minor Programs to Consider:**

Environmental Chemistry .....	20.0 s.h.
Government and Political Affairs .....	18.0 s.h.

# MILLERSVILLE UNIVERSITY

Student Name: \_\_\_\_\_ Student I.D.# \_\_\_\_\_

DEGREE: BA	<b>MAJOR REQUIREMENTS FOR A BA DEGREE IN EARTH SCIENCES</b>
MAJOR: ESCI	
OPTION:	

Total credit hours required: 120.0 minimum

## REQUIREMENTS AND POLICIES FOR THE BA EARTH SCIENCES MAJOR

### A. Policies for Admission to the Major

1. New students (freshmen and transfers) must be admitted to the Earth Sciences major by the Office of Admissions upon admission to the University.
2. Admission into the Earth Sciences major from other departments is upon approval of the chairperson of the Earth Sciences Department.
3. Non-degree and continuing education students must be admitted to the Earth Sciences 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: MATH 161, CHEM 111, PHYS 131, and at least one of the following: ESCI 221, ESCI 241, or ESCI 261.

### C. Policies for Completion of the Major

Completion of all Departmental and University curricular requirements.

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

**MAJOR SEQUENCE AND DEGREE REQUIREMENTS**

Major: **BA EARTH SCIENCES**

Option:

Major Field Requirements: **30.0 credits**

Other Requirements: **34.0 credits**

When applicable, up to six of the **REQUIRED RELATED** courses may be credited toward the Liberal Arts Core subject to normal distribution rules.

Course No.	Short Title	C.H.	Grade	Course No.	Short Title	C.H.	Grade	
<b>REQUIRED EARTH SCIENCES COURSES (12.0 credits)</b>				<b>REQUIRED RELATED (34.0 credits)</b>				
ESCI	221	Physical Geology	4.0	_____	<b>Mathematics (7.0 credits)</b>			
ESCI	241	Meteorology	4.0	_____	MATH 161	Calculus I	4.0	_____
ESCI	261	Intro to Oceanography	4.0	_____	MATH 235	Survey of Statistics	3.0	_____
<b>EARTH SCIENCES ELECTIVES (18.0 credits)</b>				<b>Physics (8.0 credits)</b>				
Choose at least 18.0 credit hours of Earth Science courses at the 200 level or higher.				PHYS 131	Physics I with Algebra	4.0	_____	
ESCI	_____	_____	_____	_____				
ESCI	_____	_____	_____	PHYS 132	Physics II with Algebra	4.0	_____	
ESCI	_____	_____	_____	<b>Chemistry (8.0 credits)</b>				
ESCI	_____	_____	_____	CHEM 111	Intro Chemistry I	4.0	_____	
ESCI	_____	_____	_____	CHEM 112	Intro Chemistry II	4.0	_____	
ESCI	_____	_____	_____	<b>Science Electives (11.0 credits)</b>				
ESCI	_____	_____	_____	Choose a minimum of 11.0 c.h. of courses from Biology, Chemistry, Computer Science, Mathematics, or Physics. Course chosen must be ones that count toward a major in those subjects. PHYS 317 also may be counted in this block.				
ESCI	_____	_____	_____	_____	_____	_____	_____	
ESCI	_____	_____	_____	_____	_____	_____	_____	
ESCI	_____	_____	_____	_____	_____	_____	_____	
ESCI	_____	_____	_____	_____	_____	_____	_____	
ESCI	_____	_____	_____	_____	_____	_____	_____	
ESCI	_____	_____	_____	_____	_____	_____	_____	
ESCI	_____	_____	_____	_____	_____	_____	_____	
				<b>General Electives (as necessary)</b>				
_____	_____	_____	_____	_____	_____	_____	_____	
_____	_____	_____	_____	_____	_____	_____	_____	
_____	_____	_____	_____	_____	_____	_____	_____	
_____	_____	_____	_____	_____	_____	_____	_____	
_____	_____	_____	_____	_____	_____	_____	_____	
_____	_____	_____	_____	_____	_____	_____	_____	



# MILLERSVILLE UNIVERSITY

Student Name: \_\_\_\_\_ Student I.D.# \_\_\_\_\_

DEGREE: BA	<b>MAJOR REQUIREMENTS FOR A BA DEGREE</b>
MAJOR: ESCI	<b>IN EARTH SCIENCES / GEOLOGY</b>
OPTION: GEOL	Total credit hours required: 120.0 minimum

## 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 Geology major by the Office of Admissions upon admission to the University.
2. Admission into the Geology 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 Geology 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: MATH 161, CHEM 111, PHYS 131 or 231, and ESCI 221.

### 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: **BA EARTH SCIENCES**

Option: **GEOLOGY**

Major Field Requirements: **36.0-39.0 credits**

Other Requirements: **23.0-26.0.0 credits**

When applicable, up to six of the **REQUIRED RELATED** courses may be credited toward the Liberal Arts Core subject to normal distribution rules.

Course No.	Short Title	C.H.	Grade	Course No.	Short Title	C.H.	Grade
<b>REQUIRED EARTH SCIENCES COURSES (11.0-14.0 credits)</b>				<b>REQUIRED RELATED (23.0-26.0.0 credits)</b>			
ESCI	221 Physical Geology	4.0	_____	<b>Mathematics and Computer Science (7.0-8.0 credits)</b>			
ESCI	222 Historical Geology	4.0	_____	MATH	161 Calculus I	4.0	_____
ESCI	422 Geological Field Mapping	3.0-6.0	_____	---AND---			
<b>EARTH SCIENCES ELECTIVES (25.0 credits)</b>				Choose one course from the following:			
Choose at least 25 credit hours of Earth Sciences courses from the following list:				MATH	211 Calculus II	4.0	_____
ESCI	225 Geomorphology	3.0	_____	MATH	235 Survey of Statistics	3.0	_____
ESCI	226 Geology of Earth Resources	3.0	_____	CSCI	161 Intro. to Programming I	4.0	_____
ESCI	321 Structural Geology	3.0	_____	ESCI	282 FORTRAN for Erth Sci Apps	3.0	_____
ESCI	322 Environmental Hydrology	3.0	_____	ESCI	446 Statistical Meteorology	3.0	_____
ESCI	326 Sedimentation & Stratigraphy	4.0	_____	NOTE: some graduate programs may require MATH 211 and/or MATH 235.			
ESCI	327 Mineralogy	4.0	_____	<b>Physics (8.0-10.0 credits)</b>			
ESCI	328 Petrog./Ign.-Met. Petrol. (W)	4.0	_____	PHYS	131 Physics I with Algebra	4.0	_____
ESCI	329 Aqueous Geochemistry (W)	3.0	_____	PHYS	132 Physics II with Algebra	4.0	_____
ESCI	382 Water Wars (P)	3.0	_____	---OR---			
ESCI	421 Advanced Geology (W)	2.0	_____	PHYS	231 Physics I with Calculus	5.0	_____
ESCI	423 Applied Geophysics	3.0	_____	PHYS	232 Physics II with Calculus	5.0	_____
ESCI	424 Geology Assessment Exam	1.0	_____	NOTE: some graduate programs may require PHYS 231/232.			
ESCI	426 Groundwater Geology	3.0	_____	<b>Chemistry (8.0 credits)</b>			
ESCI	427 Field Studies of Mtn. Belts (W)	3.0	_____	CHEM	111 Introductory Chemistry I	4.0	_____
ESCI	428 Planetary Geology (W)	3.0	_____	CHEM	112 Introductory Chemistry II	4.0	_____
ESCI	241 Meteorology	4.0	_____				
ESCI	245 Environmental Meteorology	3.0	_____				
ESCI	261 Introduction to Oceanography	4.0	_____				
ESCI	385 Global Climate Change (P)	3.0	_____				
ESCI	281 GIS Applications for ESCI	3.0	_____				
---OR---							
GEOG	295 Geographic Info. Systems	3.0	_____				

# MILLERSVILLE UNIVERSITY

Student Name: \_\_\_\_\_ Student I.D.# \_\_\_\_\_

DEGREE: BSE	<b>MAJOR REQUIREMENTS FOR A BSE DEGREE IN EARTH SCIENCES</b>
MAJOR: ESCI	Total credit hours required: 126.0 minimum
OPTION:	

## REQUIREMENTS AND POLICIES FOR THE BSE EARTH SCIENCES MAJOR

### A. Policies for Admission to the Major

1. New students (freshmen and transfers) must be admitted to the Earth Sciences major by the Office of Admissions upon admission to the University.
2. Admission into the Earth Sciences major from other departments is upon approval of the chairperson of the Earth Sciences Department.
3. Non-degree and continuing education students must be admitted to the Earth Sciences 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: MATH 161, CHEM 111, PHYS 131, ESCI 221, ESCI 241, ESCI 261.

### C. Policies for Completion of the Major

Completion of all Departmental and University curricular requirements.

### D. Admission to Advanced Professional Studies and Certification (Education Majors)

All students enrolled in teacher preparation programs must be admitted to Advanced Professional Studies and meet Pennsylvania State requirements and university requirements prior to being enrolled in their initial Advanced Professional Studies course. Students must meet additional Pennsylvania State requirements in order to be certified. A listing of Advanced Professional Studies courses and requirements is available in each department office, the Early Field Experience office, and on the Early Field Experience website.

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

## MAJOR SEQUENCE AND DEGREE REQUIREMENTS

Major: **BSE EARTH SCIENCES**

Option:

Major Field Requirements: **28.0 credits**

Other Requirements: **63.0 credits**

When applicable, up to six of the **REQUIRED RELATED** courses may be credited toward the Liberal Arts Core subject to normal distribution rules.

Course No.	Short Title	C.H.	Grade	Q.P.	Course No.	Short Title	C.H.	Grade	Q.P.
<b>REQUIRED EARTH SCIENCES COURSES (28.0 credits)</b>					<b>REQUIRED RELATED (30.0 credits)</b>				
ESCI	221 Physical Geology	4.0	_____	_____	<b>Mathematics (8.0 credits)</b>				
ESCI	222 Historical Geology	4.0	_____	_____	MATH	160 Pre-Calculus	4.0	_____	_____
ESCI	241 Meteorology	4.0	_____	_____	MATH	161 Calculus I	4.0	_____	_____
ESCI	245 Environ Meteorology	3.0	_____	_____	<b>Physics (11.0 credits)</b>				
ESCI	261 Intro Oceanography	4.0	_____	_____	PHYS	131 Physics I w/Algebra	4.0	_____	_____
ESCI	366 Ocean Resources*	3.0	_____	_____	PHYS	132 Physics II w/Algebra	4.0	_____	_____
ESCI	428 Planetary Geology	3.0	_____	_____	PHYS	117 General Astronomy	3.0	_____	_____
	-or-					----- or -----			
ESCI	202 Earth in Space	3.0	_____	_____	PHYS	317 Intro to Astronomy	3.0	_____	_____
<p>*Another Oceanography course may be substituted with the approval of your adviser.</p> <p style="text-align: center;"><b>EARTH SCIENCES ELECTIVES</b></p> <p>Choose an additional 3.0 credit Earth Science course which is approved by your adviser.</p> <p>ESCI _____</p>					<p><b>Chemistry (8.0 credits)</b></p> <p>CHEM 111 Intro Chemistry I 4.0 _____</p> <p>CHEM 112 Intro Chemistry II 4.0 _____</p> <p><b>Biology (3.0 credits)</b></p> <p>BIOL 241* Principles of Ecology 3.0 _____</p>				
<b>PROFESSIONAL EDUCATION (33.0 credits)</b>					<b>General Electives (as necessary)</b>				
EDFN	211 Found Modern Educ	3.0	_____	_____	_____	_____	_____	_____	_____
EDFN	241 Psych Found Teach	3.0	_____	_____	_____	_____	_____	_____	_____
EDSE	321 Issues in Sec. Educ.	3.0	_____	_____	_____	_____	_____	_____	_____
EDFN	330 Instr. Tech. Design	3.0	_____	_____	_____	_____	_____	_____	_____
EDSE	435 Teaching Science	3.0	_____	_____	_____	_____	_____	_____	_____
EDSE	340 Content Area Literacy	3.0	_____	_____	_____	_____	_____	_____	_____
SPED	346 Sec Students w/Dis.	3.0	_____	_____	_____	_____	_____	_____	_____
EDSE	471 Differentiating Instruct	3.0	_____	_____	_____	_____	_____	_____	_____
EDSC	461 Student Teaching	9.0	_____	_____	_____	_____	_____	_____	_____
					<p>*Requires demonstrated competency in Biology as prerequisite. Competency may be demonstrated by one of the following:</p> <ol style="list-style-type: none"> <li>1. a course grade of A or B in AP Biology;</li> <li>2. a score of 3 or better in the national AP exam.</li> <li>3. a successful score on the CLEP exam;</li> <li>4. a successful score on a General Biology challenge or placement examination.</li> <li>5. a passing grade for General Biology (BIOL 100)</li> </ol>				

# MILLERSVILLE UNIVERSITY

Student Name: \_\_\_\_\_ Student I.D.# \_\_\_\_\_

DEGREE: BS	<b>MAJOR REQUIREMENTS FOR A BS DEGREE IN GEOLOGY</b> Total credit hours required: 120.0 minimum
MAJOR: GEOL	
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 Geology major by the Office of Admissions upon admission to the University.
2. Admission into the Geology 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 Geology 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: MATH 161, CHEM 111, PHYS 131 or 231, ESCI 221, and ESCI 222.

### 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 GEOLOGY**

Option:

Major Field Requirements: **41.0-44.0 credits**

Other Requirements: **23.0-26.0.0 credits**

When applicable, up to six of the **REQUIRED RELATED** courses may be credited toward the Liberal Arts Core subject to normal distribution rules.

Course No.	Short Title	C.H.	Grade	Course No.	Short Title	C.H.	Grade
<b>REQUIRED EARTH SCIENCES COURSES (32.0-35.0 credits)</b>				<b>REQUIRED RELATED (23.0-26.0.0 credits)</b>			
ESCI	221 Physical Geology	4.0	_____	<b>Mathematics and Computer Science (7.0-8.0 credits)</b>			
ESCI	222 Historical Geology	4.0	_____	MATH	161 Calculus I	4.0	_____
ESCI	321 Structural Geology	3.0	_____	---AND---			
ESCI	326 Sedimentation & Stratigraphy	4.0	_____	Choose one course from the following:			
ESCI	327 Mineralogy	4.0	_____	MATH	211 Calculus II	4.0	_____
ESCI	328 Petrog./Ign.-Met. Petrol. (W)	4.0	_____	MATH	235 Survey of Statistics	3.0	_____
ESCI	421 Advanced Geology (W)	2.0	_____	CSCI	161 Intro. to Programming I	4.0	_____
ESCI	422 Geologic Field Mapping	3.0-6.0	_____	ESCI	282 FORTRAN for Erth Sci Apps	3.0	_____
ESCI	423 Geophysics	3.0	_____	ESCI	446 Statistical Meteorology	3.0	_____
ESCI	424 Geology Assessment Exam	1.0	_____	NOTE: some graduate programs may require MATH 211 and/or MATH 235.			
<b>GEOLOGY ELECTIVES (9.0 credits)</b>				<b>Physics (8.0-10.0 credits)</b>			
Choose three courses from the following:				PHYS	131 Physics I with Algebra	4.0	_____
ESCI	225 Geomorphology	3.0	_____	PHYS	132 Physics II with Algebra	4.0	_____
ESCI	226 Geology of Earth Resources	3.0	_____	---OR---			
ESCI	322 Environmental Hydrology	3.0	_____	PHYS	231 Physics I with Calculus	5.0	_____
ESCI	329 Aqueous Geochemistry (W)	3.0	_____	PHYS	232 Physics II with Calculus	5.0	_____
ESCI	382 Water Wars (P)	3.0	_____	NOTE: some graduate programs may require PHYS 231/232.			
ESCI	426 Groundwater Geology	3.0	_____	<b>Chemistry (8.0 credits)</b>			
ESCI	427 Field Studies of Mtn Belts (W)	3.0	_____	CHEM	111 Introductory Chemistry I	4.0	_____
ESCI	428 Planetary Geology (W)	3.0	_____	CHEM	112 Introductory Chemistry II	4.0	_____
ESCI	281 GIS Applications for ESCI	3.0	_____				
---OR---							
GEOG	295 Geographic Info. Systems	3.0	_____				

# MILLERSVILLE UNIVERSITY

Student Name: \_\_\_\_\_ Student I.D.# \_\_\_\_\_

DEGREE: BS	<b>MAJOR REQUIREMENTS FOR A BS DEGREE IN</b>
MAJOR: GEOL	<b>GEOLOGY / ENVIRONMENTAL GEOLOGY</b>
OPTION: ENV GEOL	Total credit hours required: 120.0 minimum

## 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 Geology major by the Office of Admissions upon admission to the University.
2. Admission into the Geology 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 Geology 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: MATH 161, CHEM 111, PHYS 131 or 231, ESCI 221, and ESCI 222.

### 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 GEOLOGY**

Option: **ENVIRONMENTAL GEOLOGY**

Major Field Requirements: **41.0-44.0 credits**

Other Requirements: **23.0-26.0.0 credits**

When applicable, up to six of the **REQUIRED RELATED** courses may be credited toward the Liberal Arts Core subject to normal distribution rules.

Course No.	Short Title	C.H.	Grade	Course No.	Short Title	C.H.	Grade
<b>REQUIRED EARTH SCIENCES COURSES (32.0-35.0 credits)</b>				<b>REQUIRED RELATED (23.0-26.0.0 credits)</b>			
ESCI	221 Physical Geology	4.0	_____	<b>Mathematics and Computer Science (7.0-8.0 credits)</b>			
ESCI	222 Historical Geology	4.0	_____	MATH	161 Calculus I	4.0	_____
ESCI	321 Structural Geology	3.0	_____	---AND---			
ESCI	326 Sedimentation & Stratigraphy	4.0	_____	Choose one course from the following:			
ESCI	327 Mineralogy	4.0	_____	MATH	211 Calculus II	4.0	_____
ESCI	328 Petrog./Ign.-Met. Petrology (W)	4.0	_____	MATH	235 Survey of Statistics	3.0	_____
ESCI	421 Advanced Geology (W)	2.0	_____	CSCI	161 Intro. to Programming I	4.0	_____
ESCI	422 Geological Field Mapping	3.0-6.0	_____	ESCI	282 FORTRAN for Erth Sci Apps	3.0	_____
ESCI	423 Applied Geophysics	3.0	_____	ESCI	446 Statistical Meteorology	3.0	_____
ESCI	424 Geology Assessment Exam	1.0	_____	NOTE: some graduate programs may require MATH 211 and/or MATH 235.			
<b>GEOLOGY ELECTIVES (9.0 credits)</b>				<b>Physics (8.0-10.0 credits)</b>			
Choose two courses from the following:				PHYS	131 Physics I with Algebra	4.0	_____
ESCI	322 Environmental Hydrology	3.0	_____	PHYS	132 Physics II with Algebra	4.0	_____
ESCI	329 Aqueous Geochemistry (W)	3.0	_____	---OR---			
ESCI	382 Water Wars (P)	3.0	_____	PHYS	231 Physics I with Calculus	5.0	_____
ESCI	426 Groundwater Geology	3.0	_____	PHYS	232 Physics II with Calculus	5.0	_____
Choose one course from the following:				NOTE: some graduate programs may require PHYS 231/232.			
ESCI	225 Geomorphology	3.0	_____	<b>Chemistry (8.0 credits)</b>			
ESCI	226 Geology of Earth Resources	3.0	_____	CHEM	111 Introductory Chemistry I	4.0	_____
				CHEM	112 Introductory Chemistry II	4.0	_____



# MILLERSVILLE UNIVERSITY

Student Name: \_\_\_\_\_ Student I.D.# \_\_\_\_\_

DEGREE: BS	<b>MAJOR REQUIREMENTS FOR A BS DEGREE IN METEOROLOGY</b>
MAJOR: MET	Total credit hours required: 120.0 minimum
OPTION:	

## REQUIREMENTS AND POLICIES FOR THE BS METEOROLOGY MAJOR

### A. Policies for Admission to the Major

1. New students (freshmen and transfers) must be admitted to the Meteorology major by the Office of Admissions upon admission to the University.
2. Admission into the Meteorology major from other departments is upon approval of the chairperson of the Earth Sciences Department.
3. Non-degree and continuing education students must be admitted to the Meteorology 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: MATH 161, CHEM 111, PHYS 231, ESCI 241.

### C. Policies for Completion of the Major

Completion of all Departmental and University curricular requirements.

**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 METEOROLOGY**

Option:

Major Field Requirements: **51.0 credits**

Other Requirements: **32.0 credits**

When applicable, up to six of the **REQUIRED RELATED** courses may be credited toward the Liberal Arts Core subject to normal distribution rules.

Course No.	Short Title	C.H.	Grade	Course No.	Short Title	C.H.	Grade
<b>REQUIRED EARTH SCIENCES COURSES (39.0 credits)</b>				<b>REQUIRED RELATED (32.0 - 33.0 credits)</b>			
ESCI	241	Meteorology	4.0	<b>Chemistry (4.0 credits)</b>			
ESCI	282	FORTRAN Prog. ES Applications	3.0	CHEM	111	Introductory Chemistry I	4.0
ESCI	340	Cloud Phys & Precip Processes	3.0	<b>Mathematics (18.0-19.0 credits)</b>			
ESCI	341	Atmospheric Thermodynamics	3.0	MATH	161	Calculus I	4.0
ESCI	342	Atmospheric Dynamics I	3.0	MATH	211	Calculus II	4.0
ESCI	343	Atmospheric Dynamics II	3.0	MATH	311	Calculus III	4.0
ESCI	345	Atmospheric Radiative Transfer	3.0	MATH	365	Differential Equations	3.0
ESCI	386	Scientific Prog. Analy. & Visual.	3.0	<b>AND</b>			
		---OR---		MATH	235	Survey Statistics	3.0
ESCI	281	GIS for Earth Science	3.0	<b>OR</b>			
		---OR---		MATH	333	Probability & Statistics	4.0
GEOG	295	Geographic Info. Systems	3.0	<b>OR</b>			
ESCI	441	Synoptic Meteorology Lec-Lab	3.0	MATH	335	Math Statistics I	3.0
ESCI	443	Climate Dynamics	3.0	<b>Physics (10.0 credits)</b>			
ESCI	444	Meso. & Storm-Scale Met.	4.0	PHYS	231	Physics I with Calculus	5.0
ESCI	446	Stats., Uncertainty, & Decision Making in Earth Sciences	3.0	PHYS	232	Physics II with Calculus	5.0
<b>EARTH SCIENCES ELECTIVES (12.0 - 13.0 credits)</b>				<b>GENERAL ELECTIVES (as necessary)</b>			
ESCI	261	Intro to Oceanography	4.0	_____	_____	_____	_____
ESCI	322	Environmental Hydrology	3.0	_____	_____	_____	_____
ESCI	344	Tropical Meteorology	3.0	_____	_____	_____	_____
ESCI	347	Satellite Meteorology	3.0	_____	_____	_____	_____
ESCI	349	Chemistry of Atmosphere	3.0	_____	_____	_____	_____
ESCI	369	Physical Oceanography	3.0	_____	_____	_____	_____
ESCI	380	Remote Sensing	3.0	_____	_____	_____	_____
ESCI	390	Topics (Meteorology)*	3.0	_____	_____	_____	_____
ESCI	440	Space Weather & Environment	3.0	_____	_____	_____	_____
ESCI	445	Numerical Modeling	3.0	_____	_____	_____	_____
ESCI	447	Meteorological Instrumentation	3.0	_____	_____	_____	_____
ESCI	448	Boundry Layers & Turbulence	3.0	_____	_____	_____	_____
ESCI	449	Radar Meteorology	3.0	_____	_____	_____	_____
ESCI	485	Air-Sea Interaction	3.0	_____	_____	_____	_____
<p>* Topics: Meteorology Communications does NOT count towards the ESCI electives.</p>							
<b>Skill Courses</b>							
(Do not count towards the degree)							
ESCI	348	Broadcast Meteorology	1.0	_____	_____	_____	_____
ESCI	442	Advanced Weather Analysis/ Forecasting Practicum	2.0	_____	_____	_____	_____

# MILLERSVILLE UNIVERSITY

Student Name: \_\_\_\_\_ Student I.D.# \_\_\_\_\_

DEGREE: BS	<b>MAJOR REQUIREMENTS FOR A BS DEGREE IN OCEAN SCIENCES AND COASTAL STUDIES</b>
MAJOR: OSCS	
OPTION:	

Total credit hours required: 120.0 minimum

## REQUIREMENTS AND POLICIES FOR THE BS OCEAN SCIENCES AND COASTAL STUDIES MAJOR

### A. Policies for Admission to the Major

1. New students (freshmen and transfers) must be admitted to the Ocean Sciences and Coastal Studies major by the Office of Admissions upon admission to the University.
2. Admission into the Ocean Sciences and Coastal Studies major from other departments is upon approval of the chairperson of the Earth Sciences Department.
3. Non-degree and continuing education students must be admitted to the Ocean Sciences and Coastal Studies 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: MATH 161, CHEM 111, PHYS 131, PHYS 231, ESCI 261.

### C. Policies for Completion of the Major

Completion of all Departmental and University curricular requirements.

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

## MAJOR SEQUENCE AND DEGREE REQUIREMENTS

Major: **BS OCEAN SCIENCES AND COASTAL STUDIES**

Option:

Major Field Requirements: **35.0 credits**

Other Requirements: **31.0 - 33.0 credits**

When applicable, up to six of the **REQUIRED RELATED** courses may be credited toward the Liberal Arts Core subject to normal distribution rules.

Course No.	Short Title	C.H.	Grade	Course No.	Short Title	C.H.	Grade				
<b>REQUIRED EARTH SCIENCES COURSES (35.0 credits)</b>				<b>REQUIRED RELATED (31.0 - 33.0 credits)</b>							
ESCI	241	Meteorology	4.0	<b>Mathematics (7.0 credits)</b>							
ESCI	261	Intro to Oceanography	4.0	MATH	161	Calculus I	4.0				
ESCI	267	Field Methods in Ocean*	3.0	MATH	235	Survey of Statistics	3.0				
ESCI	362	Marine Geology	3.0	<b>OR</b>							
ESCI	363	Chemical Oceanography	3.0	BIOL	375	Biometry	3.0				
ESCI	366	Ocean Resources	3.0	<b>Chemistry (8.0 credits)</b>							
ESCI	369	Physical Oceanography	3.0	CHEM	111	Introductory Chemistry I	4.0				
ESCI	380	Remote Sens & Image Interp.	3.0	CHEM	112	Introductory Chemistry II	4.0				
ESCI	464	Ocean Ecosystems	3.0	<b>Biology (8.0 credits)</b>							
ESCI	465	Biological Oceanography*	3.0	BIOL	211	Concepts of Zoology	4.0				
ESCI	468	Data Analysis & Presentation	3.0	BIOL	221	Concepts of Botany	4.0				
*Available only at Wallops Island Marine Science Center.				<b>Physics (8.0 - 10.0 credits)</b>							
				PHYS	131	Physics I w/ Algebra	4.0				
				PHYS	132	Physics II w/ Algebra	4.0				
				<b>OR</b>							
				PHYS	231	Physics I w/ Calculus	5.0				
				PHYS	232	Physics II w/ Calculus	5.0				
				<b>ELECTIVES (Minimum of 11.0 - 13.0 credits)</b>							
				Choose courses from Biology, Chemistry, Earth Sciences, Mathematics, or Physics that apply towards a major in that department.							
								A minor in Physics, Chemistry, Mathematics, or Biology is strongly recommended especially for those planning to go to graduate school.			

# MILLERSVILLE UNIVERSITY

Student Name: \_\_\_\_\_ Student I.D.# \_\_\_\_\_

DEGREE: BS	<b>MAJOR REQUIREMENTS FOR A BS DEGREE IN OCEAN SCIENCES AND COASTAL STUDIES / PHYSICAL</b>
MAJOR: OSCS	
OPTION: PHYS	Total credit hours required: 120.0 minimum

## REQUIREMENTS AND POLICIES FOR THE BS OCEAN SCIENCES AND COASTAL STUDIES MAJOR

### A. Policies for Admission to the Major

1. New students (freshmen and transfers) must be admitted to the Ocean Sciences and Coastal Studies major by the Office of Admissions upon admission to the University.
2. Admission into the Ocean Sciences and Coastal Studies major from other departments is upon approval of the chairperson of the Earth Sciences Department.
3. Non-degree and continuing education students must be admitted to the Ocean Sciences and Coastal Studies 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: MATH 211, CHEM 111, PHYS 231, ESCI 261.

### C. Policies for Completion of the Major

Completion of all Departmental and University curricular requirements.

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



# ENVIRONMENTAL HAZARDS AND EMERGENCY MANAGEMENT

## ENVIRONMENTAL HAZARDS AND EMERGENCY MANAGEMENT - BA MDST MAJOR

Emergency Management is the academic discipline that educates and trains those interested in protecting and building disaster resilient communities. The field of emergency management has shown significant growth and continues to further develop as disasters and major emergencies become more frequent and costly and as response and recovery from these events require collaboration and coordination.

### CAREERS OPPORTUNITIES

Emergency management professionals are employed at each level of government (e.g., local, state, and federal) and within various governmental agencies at each level.

- Departments of Emergency Management
- Departments of Public Health
- Departments of Transportation
- Departments of Public Works
- Non-profit disaster relief organizations
- Domestic and international nongovernmental organizations
- Energy sector
- Private sector emergency management consulting
- Information technology

This multi-disciplinary concentration of study with a focus on environmental hazards and emergency management will prepare you to apply the theoretical underpinnings of emergency management to practice, obtain a knowledge of natural hazards from a scientific perspective and the global, national, regional, and local impacts of these events, interpret and analyze appropriate data and information technology related to natural hazards and emergency management, recognize the effective methods for decision making and problem solving related to emergency management, and exhibit competency in assessing risk susceptibility, resilience and vulnerability within a community or organizations.

[Learn more about Millersville](#)

[Contact the Program Coordinator](#)

[Download 4-Year Degree Plan](#)

# **ENVIRONMENTAL HAZARDS AND EMERGENCY MANAGEMENT**

## **CORE PROGRAM 1 (18 CREDITS)**

- ESCI 101 Earth System and Natural Hazards (3 credits)
- OSEH 120 Introduction to Occupational Safety (3 credits)
- EHEM 201 Introduction to Emergency Management (3 credits)
- EHEM 305 Disaster Management and Community Risk Assessment (3 credits)
- EHEM 316 Introduction to Terrorism, WMO, and Homeland Security (3 credits)
- EHEM 319 Emergency Management Planning (3 credits)

## **CORE PROGRAM 2 (18 CREDITS)**

- ESCI 107 The Atmosphere (3 credits)
- ESCI 221 Physical Geology (3 credits)
- ESCI 245 Environmental Meteorology (3 credits)
- ESCI 366 Ocean Resources (3 credits)
- ESCI 385 Global Change (3 credits)
- GEOG 295 Geographic Information Systems (3 credits)

## **CAPSTONE EXPERIENCE (3 CREDITS)**

EHEM 498: Independent Study or Internship in Emergency Management.

## **GENERAL EDUCATION (45 CREDITS)**

Millersville University's General Education curriculum is designed to cultivate the intellect by educating students to reason logically, to think critically, to express themselves clearly, and to foster an understanding of the human condition. The General Education requirements are detailed [here](#)

## **ELECTIVES (36 CREDITS)**

All baccalaureate majors require students to complete a minimum of 120 credits. Completing Core 1, Core 2, the Capstone Experience, and all General Education requirements typically requires 84 credits. Students therefore need to take an additional 36 elective credits to reach the requirement of 120. Students work with advisors to select additional courses, minors, or second majors as part of this elective block.



# MILLERSVILLE UNIVERSITY

Student Name: \_\_\_\_\_ Student I.D. #: \_\_\_\_\_

## Curriculum Record Form for an Academic Minor in Earth Sciences

Minor: Earth Sciences  
 Department: Earth Sciences

Total credit hours required: 21.0 minimum

**Regulations Governing Minor Course Work:**

1. There shall be a minimum of 18.0 credit hours with a minimum Millersville QPA of 2.0.
2. Only one course which counts toward your major may be counted toward your minor.
3. Courses that count toward a minor are also eligible to be used to satisfy the current University-wide General Education requirements subject to normal distribution requirements.
4. At least two courses should be at the upper-division level (300-400). Exceptions may be requested upon evidence of program depth.
5. No course needed for the minor may be taken Pass-Fail.
6. One-half or more of the work required for the minor must be completed at Millersville University.
7. No student may minor in his or her major.

Course No.	Short Title	C.H.	Grade	Q.P.	Course No.	Short Title	C.H.	Grade	Q.P.
<b>REQUIRED EARTH SCIENCES COURSES (12.0 credits)</b>					<b>EARTH SCIENCES ELECTIVES (9.0 credits)</b>				
ESCI	221	Physical Geology	4.0	___	Choose one Geology course from the following:				
ESCI	241	Meteorology	4.0	___	ESCI	32_	_____	3.0	___
ESCI	261	Intro to Ocean	4.0	___			or		
					ESCI	42_	_____	3.0	___
					Choose one Meteorology course from the following:				
					ESCI	34_	_____	3.0	___
							or		
					ESCI	44_	_____	3.0	___
					Choose one Ocean Sciences and Coastal Studies course from the following:				
					ESCI	36_	_____	3.0	___
							or		
					ESCI	46_	_____	3.0	___

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

# MILLERSVILLE UNIVERSITY

Student Name: \_\_\_\_\_ Student I.D. #: \_\_\_\_\_

## Curriculum Record Form for an Academic Minor in Geology

Minor: Geology  
 Department: Earth Sciences

Total credit hours required: see below

**Regulations Governing Minor Course Work:**

1. There shall be a minimum of 18.0 credit hours with a minimum Millersville QPA of 2.0.
2. Only one course which counts toward the major may be counted toward the minor.
3. Courses that count toward a minor are also eligible to be used to satisfy the current University-wide General Education requirements subject to normal distribution requirements.
4. At least two courses should be at the upper-division level (300-400). Exceptions may be requested upon evidence of program depth.
5. No course needed for the minor may be taken Pass-Fail.
6. One-half or more of the work required for the minor must be completed at Millersville University.
7. No student may minor in his or her major. ( Exceptions have been approved for specific departments including Earth Sciences. Please see department for specific combinations).

Course No.	Short Title	C.H.	Grade	Q.P.	Course No.	Short Title	C.H.	Grade	Q.P.
Track 1 (19 credits) Required for BSE Earth Science Majors					Track 2 (20 credits) Requirements for all other majors				
Required Earth Sciences Course (4 credits)					Required Earth Science Courses (8 credits)				
ESCI 221	Physical Geology	4.0	_____	_____	ESCI 221	Physical Geology	4.0	_____	_____
					ESCI 222	Historical Geology	4.0	_____	_____
Choose 9 credits Geology courses at the 200 level or higher.					Choose 6 credits Geology courses at the 200 level or higher.				
ESCI 22_	_____	3.0	_____	_____	ESCI 22_	_____	3.0	_____	_____
ESCI 22_	_____	3.0	_____	_____	ESCI 22_	_____	3.0	_____	_____
ESCI 32_	_____	3.0	_____	_____	ESCI 32_	_____	3.0	_____	_____
ESCI 32_	_____	3.0	_____	_____	ESCI 32_	_____	3.0	_____	_____
ESCI 42_	_____	3.0	_____	_____	ESCI 42_	_____	3.0	_____	_____
At least 6 credits must be taken at the 300 level or higher for the above electives courses.					At least 6 credits must be taken at the 300 level or higher for the above electives courses.				
ESCI 32_	_____	3.0	_____	_____	ESCI 32_	_____	3.0	_____	_____
ESCI 42_	_____	3.0	_____	_____	ESCI 42_	_____	3.0	_____	_____

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

# MILLERSVILLE UNIVERSITY

Student Name: \_\_\_\_\_ Student I.D. #: \_\_\_\_\_

## Curriculum Record Form for an Academic Minor in Meteorology

Minor: Meteorology

Total credit hours required: 19.0 minimum

Department: Earth Sciences

**Regulations Governing Minor Course Work:**

1. There shall be a minimum of 18.0 credit hours with a minimum Millersville QPA of 2.0.
2. Only one course which counts toward your major may be counted toward your minor.
3. Courses that count toward a minor are also eligible to be used to satisfy the current University-wide General Education requirements subject to normal distribution requirements.
4. At least two courses should be at the upper-division level (300-400). Exceptions may be requested upon evidence of program depth.
5. No course needed for the minor may be taken Pass-Fail.
6. One-half or more of the work required for the minor must be completed at Millersville University.
7. No student may minor in his or her major. (Exceptions have been approved for specific departments including Earth Sciences. Please see department for specific combinations).

Course No.	Short Title	C.H.	Grade	Q.P.	Course No.	Short Title	C.H.	Grade	Q.P.
<b>REQUIRED EARTH SCIENCES COURSES (13.0 credits)</b>					<b>EARTH SCIENCE ELECTIVES (6.0 credits)</b>				
ESCI	241	Meteorology	4.0	___	Any ESCI 34X or 44X course that would count toward the B.S. Meteorology program. ESCI 385 and ESCI 485 would also apply.				
ESCI	340	Physical Meteor	3.0	___					
ESCI	341	Atmos. Thermodynamics	3.0	___					
ESCI	342	Atmos. Dynamics I	3.0	___					

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

# MILLERSVILLE UNIVERSITY

Student Name: \_\_\_\_\_ Student I.D. #: \_\_\_\_\_

## Curriculum Record Form for an Academic Minor in Oceanography

Minor: Oceanography  
 Department: Earth Sciences

Total credit hours required: 19.0 minimum

**Regulations Governing Minor Course Work:**

1. There shall be a minimum of 18.0 credit hours with a minimum Millersville QPA of 2.0.
2. Only one course which counts toward the major may be counted toward the minor.
3. Courses that count toward a minor are also eligible to be used to satisfy the current University-wide General Education requirements subject to normal distribution requirements.
4. At least two courses should be at the upper-division level (300-400). Exceptions may be requested upon evidence of program depth.
5. No course needed for the minor may be taken Pass-Fail.
6. One-half or more of the work required for the minor must be completed at Millersville University.
7. No student may minor in his or her major. (Exceptions have been approved for specific departments including Earth Sciences. Please see departments for specific combinations).

Course No.	Short Title	C.H.	Grade	Course No.	Short Title	C.H.	Grade
<b>REQUIRED EARTH SCIENCES COURSES (16.0 credits)</b>				<b>EARTH SCIENCE ELECTIVE (3.0 credits)</b>			
<b>Required Earth Science Course (4.0 credits)</b>				Choose one course from the following:			
ESCI 261	Intro to Oceanography	4.0	_____	ESCI 366	Ocean Resources	3.0	_____
<b>Required Core Courses (6.0 credits)</b>				ESCI 385	Global Change	3.0	_____
Choose two courses from the following:				ESCI 445	Num. Modeling	3.0	_____
ESCI 362	Marine Geology	3.0	_____	ESCI 464	Ocean Ecosystems	3.0	_____
ESCI 363	Chemical Oceanography	3.0	_____	ESCI 468	Ocean Data Analy. & Present	3.0	_____
ESCI 369	Physical Oceanography	3.0	_____	ESCI 485	Air/Sea Interaction	3.0	_____
ESCI 465	Biological Ocean.	3.0	_____				
<b>Required Methods Courses (6.0 credits)</b>							
Choose two courses from the following:							
ESCI 267	Field Methods in Ocean.	3.0	_____				
ESCI 282	Computer App. in ESCI	3.0	_____				
ESCI 380	Remote Sensing	3.0	_____				
ESCI 386	Scientific Prog, Analy & Vis	3.0	_____				
ESCI 466	Coastal Env Ocean.	3.0	_____				

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

# MILLERSVILLE UNIVERSITY

Student Name: \_\_\_\_\_ Student I.D. #: \_\_\_\_\_

## Curriculum Record Form for an Academic Minor in Environmental Hazards and Emergency Mgmt.

Minor: Environmental Hazards & Emergency Mgmt. Total credit hours required: 18.0 minimum  
 Department: Interdepartmental

**Regulations Governing Minor Course Work:**

1. There shall be a minimum of 18.0 credit hours with a minimum Millersville QPA of 2.0.
2. Only one course which counts toward your major may be counted toward your minor.
3. Courses that count toward a minor are also eligible to be used to satisfy the current University-wide General Education requirements subject to normal distribution requirements.
4. At least two courses should be at the upper-division level (300-400). Exceptions may be requested upon evidence of program depth.
5. No course needed for the minor may be taken Pass-Fail.
6. One-half or more of the work required for the minor must be completed at Millersville University.
7. No student may minor in his or her major.

Course No.	Short Title	C.H.	Grade	Course No.	Short Title	C.H.	Grade
<b>REQUIRED COURSES (12.0 credits)</b>				<b>ELECTIVES (6.0 credits)</b>			
EHEM	201 Intro to Emergency Mgmt.	3.0	_____	Choose at least two of the following electives, in consultation with your adviser, to total minor credits to 18.0.			
EHEM	305 Disaster Mgmt & Comm. Risk	3.0	_____				
ESCI	101 Earth Sys. & Natural Hazards	3.0	_____				
OSEH	120 Fundamentals Safety, Health & Environmental Issues	3.0	_____				
CHEM	101 Chem! Better Things/Better Living	3.0	_____	CHEM	103 Gen, Org & Biochemistry I	3.0	_____
CHEM	111 Introductory Chemistry I	4.0	_____	EHEM	316 Intro to Terrorism, WMD & Homeland Security	3.0	_____
EHEM	498 Ind. Study/Internship	3.0	_____	EHEM	498 Ind. Study/Internship	3.0	_____
GEOG	295 Geographic Info Systems	3.0	_____	GEOG	295 Geographic Info Systems	3.0	_____
GEOG	372 Urban & Regional Planning	3.0	_____	GEOG	372 Urban & Regional Planning	3.0	_____
OSEH	221 Industrial Fire Prevention	3.0	_____	OSEH	221 Industrial Fire Prevention	3.0	_____
SOCY	313 Sociology of Disaster	3.0	_____	SOCY	313 Sociology of Disaster	3.0	_____

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

# MILLERSVILLE UNIVERSITY

Student Name: \_\_\_\_\_ Student I.D. #: \_\_\_\_\_

## Curriculum Record Form for an Academic Minor in Heliophysics and Space Weather

Minor: Heliophysics and Space Weather

Total credit hours required: 18.0 minimum

Department: Interdepartmental

**Regulations Governing Minor Course Work:**

1. There shall be a minimum of 18.0 credit hours with a minimum Millersville QPA of 2.0.
2. Only one course which counts toward your major may be counted toward your minor.
3. Courses that count toward a minor are also eligible to be used to satisfy the current University-wide General Education requirements subject to normal distribution requirements.
4. At least two courses should be at the upper-division level (300-400). Exceptions may be requested upon evidence of program depth.
5. No course needed for the minor may be taken Pass-Fail.
6. One-half or more of the work required for the minor must be completed at Millersville University.
7. No student may minor in his or her major.

Course No.	Short Title	C.H.	Grade	Course No.	Short Title	C.H.	Grade
<b>REQUIRED COURSES (18.0 credits)</b>				<b>RECOMMENDED COURSE (0.0-3.0 credits)</b>			
PHYS 233	Mod Theories Waves/Particles	3.0	_____	PHYS 435	Statistical Physics *	3.0	_____
PHYS 321	Electromagnetic Fields I	3.0	_____				
PHYS 322	Electromagnetic Fields II	3.0	_____	* Course recommended, not required			
ESCI 341	Atmospheric Thermodynamics	3.0	_____				
<b>OR</b>							
PHYS 334	Macro Phenom & Thermodyn	3.0	_____				
PHYS 335	Multi Quantum Systems	3.0	_____				
ESCI 440	Space Weather & Environment	3.0	_____				
<p><b>Please note the following:</b></p> <p><b>Prerequisite for admission to the program: C or higher in PHYS 231 &amp; PHYS 232</b></p> <p><b>ALL required courses in minor have pre-requisites or corequisites in Mathematics and/or Physics and are NOT included in the minor credit total. Please consult University catalog and advisor for these prerequisites.</b></p>							

**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.*

## BROADCAST COMMUNICATION OPTION

The following sequence of courses is suggested for any Meteorology major that would like to enhance his/her communication skills. It is specifically intended for students who may want to pursue broadcast meteorology as a career. The Communication Department does not offer a minor. This 20 credit option is essentially a minor in broadcast communication.

Recommended Sequence:

COMM 100: 3 s.h. Fundamentals of Speech (Univ Gen Ed Requirement)

COMM 121: 3 s.h. Introduction to Audio and Video

COMM 320: 3 s.h. Radio Production

COMM 321: 3 s.h. Television Production I

COMM 326: 3 s.h. Broadcast Workshop I (W)

ESCI 348: 2 s.h. Broadcast Meteorology

Choose one of the following:

COMM 421: 3 s.h. Television Production II

OR

COMM 426: 3 s.h. Broadcast Workshop II (W)

Please note: If you are planning to pursue this option, it is imperative that you notify your Earth Sciences advisor. The COMM courses listed here are generally not open to students outside the COMM major, so in order for you to be allowed to register for any COMM course beyond COMM 100, the communications department will have to be notified through your advisor.

For more information see: <http://www.millersville.edu/commtheatre/>

# MILLERSVILLE UNIVERSITY

Student Name: \_\_\_\_\_ Student I.D. #: \_\_\_\_\_

## Curriculum Record Form for an Academic Minor in Environmental Chemistry

Minor: Environmental Chemistry  
 Department: Chemistry

Total credit hours required: 20.0 minimum

**Regulations Governing Minor Course Work:**

1. There shall be a minimum of 20.0 credit hours with a minimum Millersville QPA of 2.0.
2. Only one course which counts toward your major may be counted toward your minor.
3. Courses that count toward a minor are also eligible to be used to satisfy the current University-wide General Education requirements subject to normal distribution requirements.
4. At least two courses should be at the upper-division level (300-400). Exceptions may be requested upon evidence of program depth.
5. No course needed for the minor may be taken Pass-Fail.
6. One-half or more of the work required for the minor must be completed at Millersville University.
7. No student may minor in his or her major.

Course No.	Short Title	C.H.	Grade	Q.P	Course No.	Short Title	C.H.	Grade	Q.P
<b>REQUIRED CHEMISTRY COURSES (20.0-24.0 credits)</b>					<b>CHEMISTRY ELECTIVES (0-4.0 credits)</b>				
CHEM 111	Intro to Chemistry I	4.0	_____	_____	CHEM 265	Quant. Analysis	4.0	_____	_____
CHEM 112	Intro to Chemistry II	4.0	_____	_____					
CHEM 375	Environ. Chemistry	4.0	_____	_____					
CHEM 476	Environ. Chemistry II	4.0	_____	_____					
CHEM 231	Organic Chemistry I	4.0	_____	_____					
CHEM 232	Organic Chemistry II	4.0	_____	_____					
	or								
CHEM 235	Organic Chemistry	4.0	_____	_____					

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



# MILLERSVILLE UNIVERSITY

Student Name: \_\_\_\_\_ Student I.D. #: \_\_\_\_\_

## Curriculum Record Form for an Academic Minor in Government & Political Affairs

Minor: Government & Political Affairs  
 Department: Government & Political Affairs

Total credit hours required: 18.0 minimum

**Regulations Governing Minor Course Work:**

1. There shall be a minimum of 18.0 credit hours with a minimum Millersville QPA of 2.0.
2. Only one course which counts toward your major may be counted toward your minor.
3. Courses that count toward a minor are also eligible to be used to satisfy the current University-wide General Education requirements subject to normal distribution requirements.
4. At least two courses should be at the upper-division level (300-400). Exceptions may be requested upon evidence of program depth.
5. No course needed for the minor may be taken Pass-Fail.
6. One-half or more of the work required for the minor must be completed at Millersville University.
7. No student may minor in his or her major.

Course No.	Short Title	C.H.	Grade	Course No.	Short Title	C.H.	Grade
<b>REQUIRED GOVERNMENT COURSES (6.0 credits)</b>				<b>ELECTIVES (12.0 credits)</b>			
Choose 3.0 credit hours of American Politics:				Choose 12.0 credit hours of Government electives in consultation with your adviser.			
GOVT _____	_____	3.0	_____	GOVT _____	_____	3.0	_____
Choose 3.0 credit hours of International or Comparative Politics:				GOVT _____	_____	3.0	_____
GOVT _____	_____	3.0	_____	GOVT _____	_____	3.0	_____
<b>NOTE:</b>				GOVT _____	_____	3.0	_____
1. All GOVT courses may count toward the major.							
2. No more than three (3) 100 level courses may be taken.							

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

**BACHELOR OF ARTS IN EARTH SCIENCES  
SAMPLE PROGRAM (120 s.h. minimum)**

**FIRST SEMESTER**

ENGL 110	English Composition	3
MATH 160	Precalculus	4
ESCI 221	Physical Geology	4
UNIV 103	Exploring Earth System	3
		<hr/>
		<b>14</b>

**SECOND SEMESTER**

COMM 100	Speech Comm.	3
ESCI 261	Intro. to Oceanography	4
MATH 161	Calculus I	4
WELL 175	Wellness	3
		<hr/>
		<b>14</b>

**THIRD SEMESTER**

ESCI 241	Meteorology	4
PHYS 131	Physics I	5
MATH 235	Statistics	3
_____	G1/G3 #1	3
		<hr/>
		<b>15</b>

**FOURTH SEMESTER**

ESCI _____	Earth Sci. Elective	3
ESCI _____	Earth Sci. Elective	3
PHYS 132	Physics II	5
_____	G1/G3 #2	3
		<hr/>
		<b>14</b>

**FIFTH SEMESTER**

ESCI _____	Earth Sci. Elective	3
CHEM 111	Intro. Chem. I	4
_____	G1/G3 #3	3
_____	G1/G3 #4	3
_____	Science/Math Elective	4
		<hr/>
		<b>17</b>

**SIXTH SEMESTER**

ESCI _____	Earth Sci. Elective	3
CHEM 112	Intro. Chem. II	4
_____	G1/G3 #5	3
_____	Free Elective	3
_____	Free Elective	3
		<hr/>
		<b>16</b>

**SEVENTH SEMESTER**

ESCI _____	Earth Sci. Elective	4
_____	Science/Math Elective	4
_____	Advanced Writing	3
_____	G1/G3 #6	3
_____	Free Elective	3
		<hr/>
		<b>17</b>

**EIGHTH SEMESTER**

ESCI _____	Earth Sci. Elective	4
_____	Diversity Course	3
_____	Perspectives	3
_____	Science/Math Elective	3
		<hr/>
		<b>13</b>

**BACHELOR OF ARTS IN EARTH SCIENCES - GEOLOGY OPTION  
SAMPLE PROGRAM (120 s.h. minimum)**

**FIRST SEMESTER**

UNIV 103	First Year Seminar	3
ENGL 110	English Composition	3
MATH 160	PreCalculus	4
WELL 175	Wellness	3
	G1/G3 #2	3
		<b>16</b>

**SECOND SEMESTER**

COMM 100	Speech Communication	3
MATH 161	Calculus I	4
ESCI 221	Physical Geology	4
CHEM 111	Intro Chem I	4
		<b>15</b>

**THIRD SEMESTER**

CHEM 112	Intro Chem II	4
PHYS 131	Physics I w/ Alg	4
ESCI 222	Historical Geology	4
	G1/G3 #3	3
		<b>15</b>

**FOURTH SEMESTER**

PHYS 132	Physics II w/ Alg	4
ESCI 225	Geomorph or Earth Science Elective	3
ESCI 322	Hydrology or Earth Science Elective	3
	G1/G3 #4	3
		<b>13</b>

**FIFTH SEMESTER**

ESCI 327	Mineralogy or Elective	4
ESCI 382	Water Wars (P)	3
MATH	Elective	3
	G1/G3 #5	3
	Elective as Needed	3
		<b>16</b>

**SIXTH SEMESTER**

ESCI 226	Geology of Earth Resources	3
ESCI 326	Sed / Strat	4
ENGL	Advanced Writing (AW)	3
	G1/G3 #6	3
		<b>13</b>

**SUMMER**

ESCI 422	Geologic Field Mapping	3
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**SEVENTH SEMESTER**

ESCI 321	Structural Geology or Elective	3
	Electives as Needed	12
		<b>15</b>

**EIGHTH SEMESTER**

ESCI 426	Groundwater Geology or Elective	3
	Electives as Needed	11
		<b>14</b>

Total Credits **120**

**BACHELOR OF SCIENCE IN EDUCATION (EARTH SCIENCES)  
SAMPLE PROGRAM (126 s.h. minimum)**

FIRST SEMESTER			SECOND SEMESTER		
ENGL 110	English Composition	3	COMM 100	Speech Comm.	3
ESCI 221	Physical Geology	4	ESCI 222	Historical Geology	4
MATH 160	Precalculus	4	MATH 161	Calculus I	4
UNIV 103	Exploring Earth Sciences	3	WELL 175	Wellness	3
_____	G1/G3 #1	<u>3</u>	_____	G1/G3 #2	<u>3</u>
		<b>17</b>			<b>17</b>
THIRD SEMESTER			FOURTH SEMESTER		
ESCI 261	Intro. to Oceanography	4	ESCI 366	Ocean Resources	3
PHYS 131	Physics I with Algebra	4	PHYS 132	Phys. II with Algebra	4
PHYS 117	Gen. Astronomy	3	EDFN 211	Found. Mod. Ed.	3
_____	G1/G3 #3	3	EDFN 241	Psych. Found. Tchg.	3
_____	G1/G3 #4	<u>3</u>	_____	G1/G3 #5	<u>3</u>
		<b>17</b>			<b>16</b>
FIFTH SEMESTER			SIXTH SEMESTER		
CHEM 111	Intro. Chem. I	4	BIOL 2xx	Prin. of Ecology or other Biology by approval	3
ESCI 241	Meteorology	4	CHEM 112	Intro. Chem. II	4
ESCI 428	Planetary Geology* -OR-	3	ENGL 3xx	Advanced Writing	3
ESCI 202	Earth in Space	3	ESCI 245	Environm Meteorology	3
_____	G1/G3 #6	<u>3</u>			<u>3</u>
		<b>14</b>			<b>13</b>
SEVENTH SEMESTER			EIGHTH SEMESTER		
EDFN 330	Inst. Tech. Design & Assess	3	EDSE 471	Differentiating Instruction	3
EDSE 321	Prob. Sec. Ed	3	EDXX 461	Student Teaching	9
EDSE 340	Cont. Area Lit for Div Cl.	3	_____		
EDSE 435	Teaching Science	3	_____		
SPED 346	Sec. Stds w/Disabilities	3			
		<u>15</u>			<u>12</u>
NINTH SEMESTER					
_____	G1/G3 # 7	3			
_____	Perspectives	3			
ESCI XXX	Earth Science Elective	<u>3</u>		300 or 400 level only	
		<b>9</b>			

**Notes:** Biology Competency Test required for BIOL 100.  
 \*ESCI 202 (3 credit hours) may be substituted for ESCI 428.  
 Please be sure to seek advisement regarding your specific semester plan. Please note that summer and winter session courses can be taken to fulfill some of the requirements with approval from your academic advisor.

**BACHELOR OF SCIENCE IN GEOLOGY**  
**BACHELOR OF SCIENCE IN GEOLOGY/ENVIRONMENTAL GEOLOGY OPTION\***  
**SAMPLE PROGRAM (120 s.h. minimum)**

**FIRST SEMESTER**

UNIV 103	First Year Seminar	3
ENGL 110	English Composition	3
MATH 160	PreCalculus	4
WELL 175	Wellness	3
	G1/G3 #2	3

**16**

**SECOND SEMESTER**

COMM 100	Speech Communication	3
MATH 161	Calculus I	4
ESCI 221	Physical Geology	4
CHEM 111	Intro Chem I	4

**15**

**THIRD SEMESTER**

CHEM 112	Intro Chem II	4
PHYS 131	Physics I w/ Alg	4
ESCI 222	Historical Geology	4
	G1/G3 #3	3

**15**

**FOURTH SEMESTER**

PHYS 132	Physics II w/ Alg	4
ESCI 225	Geomorph or Earth Science Elective	3
ESCI 322	Hydrology or Earth Science Elective	3
	G1/G3 #4	3

**13**

**FIFTH SEMESTER**

ESCI 327	Mineralogy	4
ESCI 382	Water Wars (P)	3
MATH	Elective	3
	G1/G3 #5	3
	Elective as Needed	3

**16**

**SIXTH SEMESTER**

ESCI 326	Sed/Strat	4
ESCI 328	Petrology	4
ENGL	Advanced Writing (AW)	3
	G1/G3 #6	3

**14**

**SUMMER**

ESCI 422	Geologic Field Mapping	3
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**SEVENTH SEMESTER**

ESCI 321	Structural Geology	3
ESCI 421	Advanced Geology (W)	2
ESCI 423	Applied Geophysics	3
	Electives as Needed	6

**14**

**EIGHTH SEMESTER**

ESCI 424	Advanced Geology Exam	1
ESCI 426	Groundwater Geology	3
ESCI 427	Field Studies of Mountain Belts	3
	Electives as Needed	6

**13**

Total Credits

**119**

\*There are prescribed electives in the Environmental Geology Option.

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**BACHELOR OF SCIENCE IN METEOROLOGY  
SAMPLE PROGRAM (120 s.h. minimum)**

<b>FIRST SEMESTER</b>				<b>SECOND SEMESTER</b>			
ENGL	110	English Composition	3	COMM	100	Speech Comm.	3
UNIV	103	FYI Seminar	3	WELL	175	Wellness	3
MATH	161	Calculus I	4	MATH	211	Calculus II	4
CHEM	111	Intro. Chem. I	4	PHYS	231	Physics I	5
_____	___	G1/G3 #1	3				<b>15</b>
			<b>17</b>				
<b>THIRD SEMESTER</b>				<b>FOURTH SEMESTER</b>			
MATH	311	Calculus III	4	MATH	365	Ord. Diff. Eqn.	3
PHYS	232	Physics II	5	ESCI	340	Cloud Physics	3
ESCI	241	Meteorology	4	ESCI	345	Atmos. Rad. Tran.	3
_____	___	G1/G3 #2	3	_____	___	G1/G3 #3	3
			<b>16</b>	_____	___	G1/G3 #4	3
							<b>15</b>
<b>FIFTH SEMESTER</b>				<b>SIXTH SEMESTER</b>			
ESCI	341	Atmos. Thermo.	3	MATH	235	Survey of Statistics	3
ESCI	342	Atmos. Dyn. I	3	or	333	Intro. to Prob./Stat.	4
ESCI	282	FORTTRAN Prog.	3	or	335	Math Statistics I	3
ESCI	___	ESCI Elective #1	3	ESCI	343	Atmos. Dyn. II	3
ESCI	281	GIS	3	ESCI	386	Scientific Prog.	3
or GEOG	295	GIS	3	or _____	___	Perspective	3
or _____	___	Perspective	3	ESCI	___	ESCI Elective #2	3
			<b>15</b>	_____	___	G1/G3 #5	3
							<b>15-16</b>
<b>SEVENTH SEMESTER</b>				<b>EIGHTH SEMESTER</b>			
ESCI	443	Climate Dynamics	3	ESCI	444	Mesoscale Met.	4
ESCI	441	Synoptic Met.	3	ESCI	___	ESCI Elective #4	3
ESCI	446	Stat. Unc. & Dec.	3	_____	___	G1/G3 #6	3
ESCI	___	ESCI Elective #3	3	_____	___	Free Elective	1-2
ENGL	312	Adv. Writing	3				<b>11-12</b>
			<b>15</b>				

**BACHELOR OF SCIENCE IN OCEAN SCIENCES AND COASTAL STUDIES**  
**SAMPLE PROGRAM (120 s.h. minimum)**

**FIRST SEMESTER**

CHEM 111	Intro. to Chemistry I	4
ENGL 110	English Composition	3
ESCI 261	Intro. to Oceanography	4
UNIV 103	Exploring Earth System	3
		<u>14</u>

ESCI 267: Field Methods in  
Oceanography

**SUMMER:** (at CBFS) 3

**THIRD SEMESTER**

BIOL 211	Zoology	4
PHYS 131	Physics I <b>-OR-</b>	4
PHYS 231	Physics I with Calculus	5
_____	G1/G3 #1	3
_____	G1/G3 #2	3
		<u>14-15</u>

ESCI 465: Biological

**SUMMER:** Oceanography (at CBFS) 3

**FIFTH SEMESTER**

ESCI xxx	Independent Study	1-3
MATH 235	Survey of Statistics	3
Science xxx	Science Elective	3-4
_____	G1/G3 #5	3
_____	Perspectives	3
		<u>13-16</u>

ESCI 362: Marine Geology

**SUMMER:** (at CBFS) 3

**SEVENTH SEMESTER**

ESCI 369	Physical Oceanography	3
ESCI 464	Ocean Ecosystems	3
ENGL xxx	Advanced Writing	3
ESCI xxx	Independent Study	1-3
Science xxx	Science Elective	3-4
Science xxx	Science Elective	3-4
		<u>16-20</u>

**SECOND SEMESTER**

CHEM 112	Intro. to Chemistry II	4
COMM 100	Speech Comm.	3
MATH 161	Calculus I	4
WELL 175	Wellness	3
		<u>14</u>

**FOURTH SEMESTER**

BIOL 221	Botany	4
PHYS 132	Physics II <b>-OR-</b>	4
PHYS 232	Physics II with Calculus	5
_____	G1/G3 #3	3
_____	G1/G3 #4	3
		<u>14-15</u>

**SIXTH SEMESTER**

ESCI 363	Chemical Oceanography	3
ESCI 366	Ocean Resources	3
ESCI 380	Remote Sensing	3
ESCI xxx	Independent Study	1-3
_____	G1/G3 #6	3
		<u>13-15</u>

**EIGHTH SEMESTER**

ESCI 468	Ocean Data Analysis	3
ESCI xxx	Independent Study	1-3
Science xxx	Science Elective	3-4
Science xxx	Science Elective	3-4
Science xxx	Science Elective	3-4

13-18

**BACHELOR OF SCIENCE IN OCEAN SCIENCES AND COASTAL STUDIES  
PHYSICAL OCEANOGRAPHY OPTION  
SAMPLE PROGRAM (120 s.h. minimum)**

**FIRST SEMESTER**

CHEM 111	Intro. to Chemistry I	4
ENGL 110	English Composition	3
MATH 161	Calculus I	4
UNIV 103	Exploring Earth System	3
_____	G1/G3 #1	3
		<b>17</b>

ESCI 267: Field Methods in  
Oceanography

**SUMMER:** (at CBFS) **3**

**SECOND SEMESTER**

CHEM 112	Intro. To Chemistry II	4
COMM 100	Speech Comm.	3
MATH 162	Calculus II	4
WELL 175	Wellness	3
		<b>14</b>

**THIRD SEMESTER**

ESCI 261	Intro. to Oceanography	4
ESCI 282	Comp. App. in E.S.	3
MATH 261	Calculus III	4
PHYS 231	Physics I	5
		<b>16</b>

**FOURTH SEMESTER**

MATH 365	Ord. Diff. Equations	3
PHYS 232	Physics II	5
_____	G1/G3 #2	3
_____	G1/G3 #3	3
		<b>14</b>

**FIFTH SEMESTER**

ENGL 3xx	Advanced Writing	3
ESCI 241	Meteorology	4
PHYS 311	Mechanics I	3
_____	G1/G3 #4	3
_____	Perspectives	3
		<b>16</b>

**SIXTH SEMESTER**

ESCI 363	Chemical Oceanography	3
ESCI 380	Remote Sensing	3
PHYS 312	Mechanics II	3
_____	G1/G3 #5	3
_____	G1/G3 #6	3
		<b>15</b>

**SEVENTH SEMESTER**

ESCI 369	Physical Oceanography	3
ESCI 468	Ocean Ecosystems	3
PHYS 334	Thermodynamics	4
_____	G1/G3 #7	3
		<b>13</b>

**EIGHTH SEMESTER**

ESCI 443	Climate Dynamics	3
ESCI 485	Air/Sea Interaction	3
ESCI 468	Ocean Data Analysis & Pres	3
_____	G1/G3 #8	3
		<b>12</b>



**BACHELOR OF ARTS IN MULTIDISCIPLINARY STUDIES  
ENVIRONMENTAL HAZARDS AND EMERGENCY MANAGEMENT  
SAMPLE PROGRAM (120 s.h. minimum)**

<b>FIRST SEMESTER</b>				<b>SECOND SEMESTER</b>			
ENGL	110	English Composition	3	COMM	100	Speech Comm.	3
UNIV	103	FYI Seminar	3	WELL	175	Wellness	3
MATH	101	College Algebra	3	ESCI	107	The Atmosphere	3
ESCI	101	Earth System and Natural Hazards	3	OSEH	120	Introduction to Occupational Safety	3
_____	_____	General Education	3	_____	_____	Free Elective	3
			<u>15</u>				<u>15</u>

<b>THIRD SEMESTER</b>				<b>FOURTH SEMESTER</b>			
EHEM	201	Introduction to Emergency Management	3	EHEM	305	Disaster Management and Community Risk Assessment	3
OSEH	221	Industrial Fire Prevention	3	ESCI	245	Environmental Meteorology	3
ESCI	221	Physical Geology	4	_____	_____	General Education	3
_____	_____	General Education	3	_____	_____	General Education	3
_____	_____	Free Elective	3	_____	_____	General Education	3
			<u>16</u>				<u>15</u>

<b>FIFTH SEMESTER</b>				<b>SIXTH SEMESTER</b>			
ESCI	104	World Oceans	3	EHEM	316	Introduction to Terrorism	3
GEOG	281	Map Inter. And Analysis	3	GEOG	295	Geographical Information Systems	3
ESCI	385	Global Change	3	XXXX	_____	Required Related	3
XXXX	_____	Required Related	3	XXXX	_____	Required Related	3
_____	_____	Free Elective	3	XXXX	_____	Perspective	3
			<u>15</u>	_____	_____	General Education	3
			<u>15</u>				<u>15</u>

<b>SEVENTH SEMESTER</b>				<b>EIGHTH SEMESTER</b>			
EHEM	498	IS/Internship	3	_____	_____	General Education	3
_____	_____	General Education	3	_____	_____	Free Elective	3
_____	_____	Free Elective	6	_____	_____	Free Elective	3
_____	_____		_____	_____	_____	Free Elective	5-6
ENGL	312	Adv. Writing	3				<u>14</u>
			<u>15</u>				<u>14</u>

## **DEPARTMENT OF EARTH SCIENCES STUDENT LEARNING OUTCOMES**

- Exhibit knowledge and understanding of the Earth system specific to their discipline.
- Demonstrate quantitative skills appropriate to their Earth Sciences discipline.
- Demonstrate proficiency in the application of tools and skills appropriate to their discipline.
- Demonstrate effective oral and written communication skills appropriate to their discipline.
- Demonstrate a broad understanding of the scientific method to address and solve problems.

MILLERSVILLE UNIVERSITY  
General Education Curriculum Guide (Purple Sheet)

Student Name: \_\_\_\_\_

Student I.D. # \_\_\_\_\_

**Critical Thinking Across the Liberal Arts (G1-G3)**

**General Guidelines:**

- Only approved General Education (GenEd) courses may be used.
- Courses must be taken from at least two departments within each G1, G2, and G3 block.
- No more than two courses can be taken from any one department throughout the G1, G2, and G3 blocks.
- At least three courses taken throughout blocks G1, G2 &/or G3 must be at the 200 level or above.
- Up to six "Required Related" courses may be counted toward GenEd requirements.
- Courses from the primary major may not fulfill the G1, G2, and G3 blocks; courses from a minor or secondary major may fulfill these blocks.

**G1. Humanities and Fine Arts: Three courses minimum totaling at least 9 credit hours.**

G1 courses typically occur within the following departments: Art, Communications & Theatre, English, Foreign Language (which includes HUMN courses), Music or Philosophy. Students majoring in a Humanities & Fine Arts department may not count courses from the major department in this block.

<u>Subject/Course#</u>	<u>Course Title</u>	<u>Cr. Hrs.</u>	<u>Grade</u>
<u>1.</u>	_____	_____	_____
<u>2.</u>	_____	_____	_____
<u>3.</u>	_____	_____	_____

**G2. Science and Mathematics: Three courses minimum totaling at least 9 credit hours.**

G2 courses typically occur within the following departments: Biology, Chemistry, Computer Science, Earth Sciences, Mathematics, Nursing or Physics. Students majoring in a Science or Mathematics department may not count courses from the major department in this block.

**Additional Guidelines:**

- At least two courses must be taken from the "natural sciences": Biology, Chemistry, Earth Sciences and Physics. This can be two courses from any one of these departments **OR** one course from any two of these departments.
- One course taken within the G2 block must be a Lab course.

<u>Subject/Course#</u>	<u>Course Title</u>	<u>Cr. Hrs.</u>	<u>Grade</u>	<u>✓ 2 from</u> <u>Natural Sci.</u>	<u>✓ 1 Lab</u> <u>Course</u>
<u>1.</u>	_____	_____	_____	_____	_____
<u>2.</u>	_____	_____	_____	_____	_____
<u>3.</u>	_____	_____	_____	_____	_____

**G3. Social Sciences: Three courses minimum totaling at least 9 credit hours.**

G3 courses typically occur within the following departments: African-American Studies, Anthropology, Business Administration, Economics, Geography, Government, History, International Studies, Occupational Safety & Environmental Health, Psychology, Sociology, Social Work/Gerontology, or Women's Studies. Students majoring in the Social Sciences areas may not count courses from their major department in this block.

<u>Subject/Course#</u>	<u>Course Title</u>	<u>Cr. Hrs.</u>	<u>Grade</u>
<u>1.</u>	_____	_____	_____
<u>2.</u>	_____	_____	_____
<u>3.</u>	_____	_____	_____

## Additional General Education Requirements

### Foundations for Lifelong Learning (4 courses minimum 12 credit hours)

This category requires: **1. ENGL 110, 2. COMM 100, 3. GenEd (G2) approved Mathematics course (MATH 1XX), and 4. Advanced Writing (AW) course (ENGL 311, 312, 313, 316, 318, or 319).**

**Guidelines:**

- ENGL 110 must be completed with a grade of C- or better.
- COMM 100 must be completed with a grade of C- or better.
- The upper level writing (AW) course has a prerequisite of ENGL 110 (C- or better) and a minimum of 60 credit hours completed. Many majors recommend or require a specific AW course. Check the catalog for further details.
- G2 Math course must be different from that used towards the G2 block in the Liberal Arts Core.

<u>Subject/Course#</u>	<u>Course Title</u>	<u>Cr. Hrs.</u>	<u>Grade</u>
1. ENGL 110	English Composition	3.0	_____
2. COMM 100	Fundamentals of Speech	3.0	_____
3. MATH	_____	_____	_____
4. ENGL 31X	_____	_____	_____

### Connections & Exploration Courses (minimum 9 credit hours)

**Guidelines/Prerequisites:**

1. **First-Year Inquiry (FYI) Seminar – UNIV 103 (3 credit hours) or Open Elective (3 credit hours)**
  - Open electives must be 100 level or above and must be taken outside of primary major.
  - For BSE students, required professional education courses **cannot** count as open electives.
2. **Perspectives (P) Course (3 credit hours)**
  - May be satisfied with approved courses from the major, the minor, the required related area, or general electives.
  - ENGL 110 and COMM 100 completed with grades of C- or better.
  - Minimum of 60 credit hours completed.
3. **Wellness/Health Education course (3 credit hours)**
  - Any WELL 175 course will fulfill this requirement.
  - Early Childhood Education or Early Childhood/Special Education majors are required to take WELL 240.

<u>Subject/Course#</u>	<u>Course Title</u>	<u>Cr. Hrs.</u>	<u>Grade</u>
1. _____	_____	_____	_____
2. _____	_____	_____	_____
3. _____	_____	_____	_____

### Cultural Diversity & Community (D) Course

- May be satisfied with approved courses from the GenEd requirements (including Perspectives), the major, the minor, the required related area, or general electives.

<u>Subject/Course#</u>	<u>Course Title</u>	<u>Cr. Hrs.</u>	<u>Grade</u>
1. _____	_____	_____	_____

### Writing Intensive (W) Courses (3 courses)

**Guidelines/Prerequisites:**

- May be satisfied with approved courses from the GenEd requirements, the major, the minor, the required related area, or general electives.
- ENGL 110 must be completed with a grade of C- or better.

<u>Subject/Course#</u>	<u>Course Title</u>	<u>Cr. Hrs.</u>	<u>Grade</u>
1. _____	_____	_____	_____
2. _____	_____	_____	_____
3. _____	_____	_____	_____

### Developmental Courses (COMM 010, EDUC 090, ENGL 010, MATH 090)

These do not count toward the 120 credit hours required for graduation.

# DEGREE AUDITS AND ADVISEMENT

## ADVISEMENT BEFORE REGISTRATION

Advisement is required for all undergraduate students. Well in advance of your registration time, meet with your adviser to discuss your degree program and course selection options, as well as any other concerns you may have. After you register for classes, be sure to review your degree audit to see how your courses will meet the requirements of your program.

## CHANGING YOUR CURRICULUM (ADDING OR DROPPING MAJOR/MINOR)

If you plan to change your curriculum (Degree, Major, Option or Minor), you must submit an approved Academic Program Change Request (formerly called Academic Major Form and Academic Minor Form).

The request form is NOW AVAILABLE IN MAX!

### **ACADEMIC PROGRAM CHANGE REQUEST**

The form requires the approvals of advisor and/or department chairperson depending on the case. So, we recommend speaking with them before submitting the form.

If you delay in filing this form, your major change may not be processed in time for your registration appointment time, and you may not be able to register for courses restricted to your new major. The deadline to submit changes for the Fall 2020 advisement period is Monday March 2, 2020. If you submit the form to the Registrar's Office after this date, the change can still be processed, but your TAP number will be issued to your advisor prior to the change.

## QUESTIONS ABOUT AN AUDIT

If you have questions about a degree audit, or you think there might be errors or discrepancies, contact one of the offices listed below for further assistance:

- For curricular questions about the major, minor, or general education requirements, and any questions regarding initiating an exception to graduation or academic major or minor form, contact your advisor or the chairperson of your major department.
- Contact the [Registrar's Office](#) for questions concerning transfer courses, Millersville courses and grades, in-progress courses or a submitted exception to graduation or academic major or minor form.

## WHAT-IF DEGREE AUDITS

A 'What-If' audit allows you and your adviser to see the effects of changing a major or option, declaring a major, or adding or changing a minor before officially changing your record. If you are undecided about a major, the what-if audit is a useful tool to try out different majors and see how your courses will meet the requirements for those programs.

'What-If' audits are best used for single majors, with multiple concentrations or minors.

'What-If' audits can be run for multiple majors within a degree program (for example: Psychology and Sociology since both majors are Bachelor of Arts)

'What-If' audits can't be run for multiple degrees (for example: a Bachelor of Arts in Psychology and a Bachelor of Science in Biology). Separate What-If audits would need to be run for each degree/major in this case.

For multiple majors or multiple degrees, some requirements may alter slightly when your record is officially changed. For example, a major in Geography requires a minor to be declared which is waived if you have a second major. The 'What-If' audit is unable to recognize that you have declared multiple majors, so it will not waive the minor requirement.

## CONTACT INFORMATION - REGISTRAR'S OFFICE

Millersville University  
P.O. Box 1002  
Millersville, PA 17551

### **We are open virtually.**

Our physical office is closed, but we are still available.

For the fastest response, please connect with us via **Email**:

General/Registration: [Registrar@millersville.edu](mailto:Registrar@millersville.edu)  
Degree Audit: [Degree.Audit@millersville.edu](mailto:Degree.Audit@millersville.edu)  
Commencement: [Commencement@millersville.edu](mailto:Commencement@millersville.edu)  
Transcripts: [Registrar-Transcripts@millersville.edu](mailto:Registrar-Transcripts@millersville.edu)

**Phone:** 717-871-5005

**Fax:** 717-871-7894

**Virtual Hours:** Mon. - Fri. 8am to 4pm

## EXCEPTIONS TO GRADUATION REQUIREMENTS

Students are responsible for initiating a request for exceptions to graduation requirements. Whether the exception is in the major, minor or general education areas or to University academic policy, you should file an exception request well in advance of your expected graduation date. Approved changes will be noted on your degree audit.

**[CLICK HERE TO LOGIN TO MAX AND START AN EXCEPTION](#)**

To request an exception:

1. Login to MAX
2. Go to the Student Services Tab
3. Select the Advisement menu
4. Click on "Request Exception to Graduation Requirements"
5. Complete all required fields in the form and in the text box type a clear and compelling justification for the request. At this time, the online form is not able to include attachments, if your advisor has asked for information that can't be typed or linked to in the explanation on the form, you will need to provide that documentation to them separately.
6. Click to Submit the form.

[Student Exception to Graduation Electronic Help Document\(pdf\)](#)

Once you have submitted your form, you will receive email notifications as the exception is routed to the appropriate levels of approval. All exceptions will first go to your advisor, then depending on the type of exception will be routed accordingly:

- The department chairperson approves any exception requests in the major/required related areas. If you have a multidisciplinary major, this will be the multidisciplinary committee chairperson.
- The department chairperson of the minor approves any exception requests in the minor.
- The Honors College director will approve exceptions to Honors College requirements.
- For approval of exceptions to general education requirements and/or academic policy, the major department chairperson and college dean must sign.

You will be notified via email regarding the status of your exception request whether it is approved or denied.

If you cannot submit an electronic exception, at this time we will still also accept paper exceptions. [Click here for the paper form.](#)

# Student Organizations



## **Geology Club**

<https://getinvolved.millersville.edu/organization/geologyclub>

The Geology Club is an organization devoted to the study of geology beyond the classroom. In addition to fundraising and hosting guest speakers, there are local and extended trips planned throughout the United States. The club meets biweekly during the semester, and all Millersville students are welcome to join.

## **Ocean Science Club**

<https://getinvolved.millersville.edu/organization/oceanscienceclub>

The Ocean Science Club is open to any student who has an interest in the marine sciences. Students meet weekly to discuss current topics in the marine sciences, sponsor special lectures and go on field trips.

## **American Meteorological Society**

<http://snowball.millersville.edu/~ams/>

American Meteorological Society's Millersville University Chapter has a membership of over 70 students and is open to all Millersville students. Activities and events, including attending conferences, are scheduled for each semester. In addition, the Chapter hosts a number of guest speakers who present relevant topics during the course of the year. An annual banquet is held in the spring semester.

## **Campus Weather Service**

The Campus Weather Service is a student-run forecast service that issues forecasts at 9:00 AM, 2:00 PM and 7:00 PM EST Monday through Friday and at approximately 9:30 AM on the weekends. Students are paired, freshman or sophomore with a junior or senior, and are responsible for issuing local forecasts. The Weather Station is located in Caputo 401.



# Honors and Awards

1. *Earth Sciences Award for Academic Excellence in Liberal Arts*  
The name of the outstanding Earth Sciences' senior will be inscribed on a plaque permanently housed in Brossman Hall.
2. *Earth Sciences Award for Academic Excellence in Secondary Education*  
The name of the outstanding Earth Sciences' senior will be inscribed on a plaque permanently housed in Brossman Hall.

## Scholarships

1. *Dr. William B. McIlwaine Endowed Scholarship in Earth Sciences*  
Awarded to a student majoring in the Earth Sciences who has completed 60 semester hours of academic credit at Millersville University with a GPA of 3.2 or higher and demonstrates financial need. Scholarship is awarded in the spring semester.
2. *Paul H. Nichols Earth Sciences Scholarship*  
Awarded to a junior who is chosen on the basis of outstanding motivation and academic excellence. Scholarship is awarded in the spring semester.
3. *Rettew Associates Scholarship in Geology*  
Awarded to an outstanding student majoring in Earth Sciences (Geology) with a GPA of 3.0 or higher.
4. *Clark-Yalda Scholarship in Atmospheric Science*  
Awarded to an incoming freshman majoring in Meteorology. The recipient must be in the top 25% of her or his high school class and show evidence of strong science and mathematics skills demonstrated by a combination of class work and standardized tests. First preference is to a student from outside of Pennsylvania who is also of an under-represented group; otherwise a qualifying out-of-state student; otherwise an under-represented student from Pennsylvania; and finally, a qualifying student from Pennsylvania. (Gender is not to be considered an under-represented category unless a particular gender falls below 30% of total enrollment in meteorology.)
5. *William Malcolm Jordan Earth Sciences Scholarship*  
Awarded to an incoming freshman student planning to major in Geology or in Earth Sciences with a Geology emphasis. It will be awarded for the first year of study only. Preference is to be given to graduates of Penn Manor High School, secondly to students entering from other school districts in Pennsylvania, and lastly from any school district in that order.

# Scholarships

The department is pleased to announce the establishment of five new scholarships.

6. *Scott and Deborah Jacobs Meteorology Scholarship*  
Awarded to a returning Millersville University student majoring in Meteorology; has completed at least 15 credits; is in good academic standing with first preference to a student with a minimum cumulative GPA of 3.25 and the consideration of financial aid (not required). The first recipient for this scholarship will be selected for the 2020-2021 academic year.
7. *James and Judith Hower Scholarship in the Earth Sciences*  
Awarded to a junior or senior Millersville University student with a major in the Department of Earth Sciences and who is in good academic standing with first preference to a student with a minimum cumulative GPA of 3.25 and the consideration of financial aid (not required). The first recipient for this scholarship will be selected for the 2020-2021 academic year.
8. *Harry A. '65 and Carolyn J. Lohss Geology Scholarship*  
Awarded annually to a full-time student pursuing a major in Geology. If recipient is a freshman, the student should have a GPA of at least 3.0 on a 4.0 scale. If awarded to other than a freshman, the recipient must have a GPA of 3.0 or greater. Financial need is a consideration but not a requirement. With the annual approval of the Earth Sciences department chair or designee, the scholarship may be renewed annually for a maximum six additional semesters beyond the freshman year provided the student continues to maintain a departmental and overall GPA of 3.0 or greater. The first recipient for this scholarship will be selected for the 2020-2021 academic year.
9. *Harry A. '65 and Carolyn J. Lohss Meteorology Scholarship*  
Awarded annually to a full-time student pursuing a major in Meteorology. If recipient is a freshman, the student should have a GPA of at least 3.0 on a 4.0 scale. If awarded to other than a freshman, the recipient must have a GPA of 3.0 or greater. Financial need is a consideration but not a requirement. With the annual approval of the Earth Sciences department chair or designee, the scholarship may be renewed annually for a maximum six additional semesters beyond the freshman year provided the student continues to maintain a departmental and overall GPA of 3.0 or greater. The first recipient for this scholarship will be selected for the 2020-2021 academic year.
10. *Dr. Charles Scharnberger Geology Scholarship*  
Awarded to one or more junior or senior students majoring in Geology and in good academic standing. First preference to a student(s) with a minimum cumulative GPA of 3.25. Financial aid is a consideration but not required. The scholarship is renewable at the discretion of the Dean but not automatically renewed.

# Millersville University

## Academic Year 2020-2021 Calendar

### Fall Term 2020

THU	AUG 20	Orientation for first-time-in-college residential students begins*
FRI	AUG 21	Orientation for first-time-in-college commuting students begins*
SUN	AUG 23	Orientation for first-time-in-college students ends*
MON	AUG 24	Fall classes begin
FRI	NOV 20	Thanksgiving recess begins after last class Students move out of Residence Halls
MON	NOV 30	Thanksgiving recess ends at 7:00 a.m. Classes resume remotely
FRI	DEC 4	Last instructional day (Remote)
MON	DEC 07	Reading Day (No instruction)
TUE	DEC 08	
	Through	Evaluation period/ Final Examinations (Remote)
FRI	DEC 11	
SUN	DEC 13	Commencement; End of Fall Term

\*Orientation and residential move-in details for Fall 2020 could change

### Winter Term 2021 (5 weeks)

MON	DEC 14	Winter classes begin all remote modality
SUN	JAN 17	Winter classes end after last final examination
MON	JAN 18	Holiday (no classes)

### Spring Term 2021

TUE	JAN 19	Spring classes begin
MON	MAR 08	Spring recess begins at 7:00 a.m.
MON	MAR 15	Spring recess ends at 7:00 a.m.
MON	MAY 03	Last day of classes
TUE	MAY 04	
	Through	Evaluation period (special class schedule)
FRI	MAY 07	
FRI	MAY 07	Graduate Studies Commencement
SAT	MAY 08	Spring Baccalaureate Commencement; End of Spring Term

### Summer 1 Term 2021 (4 weeks)

MON	MAY 10	Summer 1 classes begin
MON	MAY 31	Holiday (no classes)
FRI	JUN 04	Summer 1 classes end

### Summer 2 Term 2021 (5 weeks)

MON	JUN 07	Summer 2 classes begin
MON	JUL 05	Holiday observed(no classes)
FRI	JUL 09	Summer 2 classes end

### Summer 3 Term 2021 (5 weeks)

MON	JUL 12	Summer 3 classes begin
FRI	AUG 13	Summer 3 classes end

### Fall Term 2021

MON	AUG 23	Fall classes begin
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# Sources of Information

In addition to guidance from your academic advisor, department homepage and department handbook, you may use or consult the following list for any other information.

## Printed/On-Line Information:

1. Millersville University Web Page: <http://www.millersville.edu>
2. Millersville University Undergraduate Catalog  
(Available on-line: <http://www.millersville.edu/registrar/>; select “University Catalogs”, then “Undergraduate Catalog”)
3. Millersville University Student Handbook  
(Available on-line: <http://www.millersville.edu/studentconduct/>; select “Handbook/Student Code of Conduct”)
4. Undergraduate Student Forms: <http://www.millersville.edu/forms/>  
On this web page you will find various forms from different departments around campus. This location provides printable and online forms for students.

## Offices:

1. Experiential Learning & Career Management.....717-871-7655  
    Career Services, Internships and Traineeships.....Bedford House  
    Community Service and Volunteer Central .....Huntingdon House
2. Center for Counseling and Human Development.....Lyle Hall, 717-871-7821
3. Health Services .....Witmer Building, 717-871-5250
4. Academic Advisement.....Lyle Hall, 717-871-7607
5. Registrar's Office.....Lyle Hall, 717-871-5005
6. Center for Student Involvement & Leadership .....SMC, 717-871-7056
7. Tutoring Center .....Lyle Hall, 717-871-7222
8. University Police.....Lebanon House  
    Non-emergency .....717-871-4357  
    Emergency .....911
9. SMC Information Desk .....SMC, 717-871-4636
10. Information Technology..... Boyer Computer Center, 717-871-7007  
    IT Help Desk..... 717-871-7777  
    Technical Assistance Center..... 717-871-7666

# Millersville University

*Your link*

*to the future.....*

**[www.millersville.edu/esci/](http://www.millersville.edu/esci/)**

Earth Sciences

Geology

Meteorology

Ocean Sciences & Coastal Studies

Earth Sciences Education