

Environmental Science, Water Management & Hydrologic Science Concentration

Department of Earth & Atmospheric Sciences, 303-615-1177, Science Room 2028

College of Letters, Arts, and Sciences

Catalog
2020-2021

This sheet applies to the 2020-21 catalog *only*. It does not replace the full catalog as an official statement of requirements. Students with declared majors *must* work with an advisor on course selection and sequencing to ensure a timely graduation.

General Studies	33 min
Environmental Science Required Courses	26
Water Management & Hydrologic Science Requirements	43
Restricted Electives	<u>18</u>
Total to Graduate (Min. 40 hrs. Upper-Division)	120 min

General Studies Course Requirements

Written Communication (min. 6 credits)

- _____ ENG 1010 Composing Arguments
- _____ ENG 1020 Freshman Comp: Analysis, Research, & Doc.

Oral Communication (min. 3 credits)

Quantitative Literacy (min. 3 credits)

- _____ See required pre-requisites for recommendations*

Arts and Humanities (min. 6 credits)

Historical (min. 3 credits)

Natural and Physical Sciences (min. 6 credits)

- _____ See required pre-requisites for recommendations*

Social and Behavioral Sciences I (min. 3 credits)

Social and Behavioral Sciences II (min. 3 credits)

Global Diversity

- _____ May be satisfied within General Studies (GD code)

Multicultural Requirement

- _____ May be satisfied within General Studies (MC code)

Environmental Science Required Pre-Requisites*

	<u>Credits</u>
_____ BIO 1080 General Biology I (Co: BIO 1090)	3
_____ BIO 1090 General Biology Laboratory I (Co: BIO 1080)	1
_____ BIO 1081 General Biology II (Preq. BIO 1080/1090; Co: BIO 1091)	3
_____ BIO 1091 General Biology Laboratory II (Preq. BIO 1080/1090; Co: BIO 1081)	1
_____ CHE 1800 General Chemistry I (Preq. at least MTH 1110)	4
_____ CHE 1801 General Chemistry I (Preq. Or Co. CHE 1800)	1
_____ CHE 1810 General Chemistry II (Preq. CHE 1800)	4
_____ CHE 1811 General Chemistry Laboratory II (Preq. or Co. CHE 1810)	1
_____ GEG 1100 Physical Geography OR GEL 1010 Physical Geology	3-4
_____ MTH 1410 Calculus I (Preq. MTH 1110 & 1120)	4

Environmental Science Required Core Courses

	<u>ENV</u>	<u>Credits</u>
1200 Intro to Environmental Science	_____	3
_____ GIS 1220 Introduction to Geospatial Sciences (MTH 1110 Recommended)	_____	3
_____ GIS 2250 Geographic Information Systems (Preq. GIS 1220)	_____	3
_____ CET 3320 Environmental Impact Statements (Preq. Junior Status)	_____	3
_____ MTH 1210 Intro to Statistics	_____	4
_____ MTH 3240 Environmental Statistics (Preq. MTH 1210 & MTH 1110 or MTH 1112)	_____	4
_____ ENV 4200 Environmental Policy & Planning (Preq. ENV 1200)	_____	3
_____ ENV 4950 ENV Internship (optional – override needed, see advisor) (Preq. 12 credits UD ENV & Jr. Status)	_____	3

<u>Water Management & Hydrologic Science Required Courses</u>	<u>Credits</u>
___ ENV 2100 Basic Water Sampling and Analysis	
___ ENV 3400 Water Resources (Preq. MTH 1110, ENV 1200 , or GEG 1100)	3
___ ENV 4410 Water Law OR ENV 3250 CO Water Law (Preq. ENV 1200 or ENV 3400)	3
___ ENV 4420 Wetlands (Preq. ENV 1200,)	3
___ ENV 4440 Limnology (Preq. ENV 1200, BIO 1081/1091)	3
___ ENV 4450 Stream Ecology (Preq. ENV 1200, BIO 1081/1091)	3
___ ENV 4460 Advanced Water Quality Analysis (Preq. CHE 1810/1811, ENV 2100, & ENV 3400)	3
___ GEL 4150 Hydrology (Preq. GEG 1100, GEG 1910 or ENV 3400 & MTH 1210)	4
___ ENV 4470 Snow Hydrology OR GEL 4250 Hydrogeology (Preq. See catalog for pre-requisites)	3-4

<u>Environmental Science Electives (min. 12 credits)</u>	<u>Credits</u>
___ ENV 2000: 4999 Any ENV course taught at MSU (See catalog for titles and pre-reqs)	3
___ GEL 3420 Soil Resources (Preq. ENV 1200)	4
___ GEL 4250 Hydrogeology (Preq. GEL 1010, CHE 1800, MTH 1110, & GEL 3420)	4
___ MTR 3200 Climate Change & Ecosystems (Preq. MTH 1210 & ENV 1200 or MTR 1400 or MTR 1600)	3
___ PHY 2311 General Physics I (Preq. MTH 1410)	4
___ PHY 2321 General Physics I Lab (Preq. MTH 1410)	1

The degree is an extended major that does not require a minor.

Need to total a minimum of 120 credits for a bachelor's degree

<u>Senior Experience Requirement (min. 3 credits)</u>	<u>Credits</u>
___ ENV 4970 Environmental Field Studies (Preq. 12 UD credits of ENV, GEG, GEL, or MTR & Sr. Status)	3
___ ENV 4960 Global Environmental Challenges (Preq. 12 UD credits of ENV, GEG, GEL, or MTR & Sr. Status)	3