

## Multidisciplinary Concentration Requirements

Students are required to select courses in Biology, Chemistry, Environmental Science, Geographic Information Systems, Geology, Meteorology, Mathematics and Civil Engineering, and elective courses in consultation with an environmental science advisor.

### Additional Required Courses

COURSES.....			SEMESTER HOURS
CHE	3100	Organic Chemistry I.....	4
MTR	2400	Introduction to Atmospheric Science .....	4
<i>Subtotal</i> .....			8

### Biology – Select at least 8 hours

COURSES.....			SEMESTER HOURS
BIO	2100	General Botany .....	5
BIO	2400	General Microbiology .....	5
BIO	3140	Plant Physiology* .....	5
BIO	3160	Plant Anatomy and Morphology*.....	4
BIO	3180	Vascular Plant Taxonomy* .....	4
BIO	3200	Invertebrate Zoology .....	4
BIO	3260	Vertebrate Zoology .....	4
BIO	3360	Animal Physiology* .....	4
BIO	3550	Urban Ecology .....	4
BIO	4450	Pathogenic Microbiology* .....	5
BIO	4510	Microbial Ecology* .....	4
BIO	4540	Plant Ecology* .....	4
BIO	4550	Animal Ecology* .....	4

### Chemistry – Select at least 3 hours

CHE	3050	Environmental Chemistry.....	3
CHE	3110	Organic Chemistry II .....	3
CHE	3120	Organic Chemistry Laboratory I .....	2
CHE	3130	Organic Chemistry Laboratory II* .....	2
CHE	3890	Science and Public Policy: Variable Topics .....	1 – 3
CHE	4310	Biochemistry I .....	4
CHE	4320	Biochemistry II* .....	3
CHE	4350	Biochemistry Laboratory*.....	1
CET	3330	Environmental Technology Processes.....	3

### Environmental Science – Select at least 9 hours

ENV	3400	Water Resources .....	3
ENV	3700	Mountain Environments .....	3
ENV	3710	Environmental Remediation .....	3
ENV	3720	Waste Management .....	3
ENV	3730	Environmental Risk Assessment .....	3
ENV	3740	Environmental Health.....	3
ENV	4010	Environmental Hazards and GIS* .....	3
ENV	4200	Environmental Policy and Planning .....	3
ENV	4410	Water Law .....	3
ENV	4420	Wetlands .....	3
ENV	4430	Habitat Planning .....	3
ENV	4440	Landscape Ecology* .....	3
ENV	4500	Environmental Biogeochemistry.....	3
ENV	4910	Global Environmental Field Problems: Variable Topics .....	3
ENV	4920	Topics in Environmental Science: Variable Topics .....	3
MTR	3100	Air Pollution.....	3

**Geographic Information System** – Select at least 3 hours

GIS	3250	Cartography.....	3
GIS	4840	Remote Sensing .....	3
GIS	4850	Spatial Modeling in Raster .....	4
GIS	4860	GIS Applications.....	4
GIS	4880	Current Topics in GIS: Variable Topics.....	1 – 3

**Geology** – Select at least 4 hours

ENV	3540	Advanced Geologic and Environmental Hazards – Denver and Vicinity .....	2
ENV	4000	Environmental Geology.....	3
GEL	3050	Mineralogy and Petrology.....	4
GEL	3060	Stratigraphy and Structure.....	4
GEL	3120	Advanced Geomorphology* .....	4
GEL	3150	Hydrogeology.....	3
GEL	3420	Soil Resources*.....	4
GEL	3440	Energy and Mineral Resources* .....	4
GEL	3510	Advanced Geology of Red Rocks Park and Vicinity.....	1
GEL	3520	Advanced Garden of the Gods – Front Range Geology.....	2
GEL	3530	Advanced Geology of the Colorado Plateau.....	2
GEL	3550	Advanced Geology of the Great Sand Dunes National Monument.....	2
GEL	4150	Hydrology* .....	3

**Social Sciences** – Select at least 3 hours

ECO	3450	Environmental Economics*.....	3
PSC	3230	Environmental Politics*.....	3
SOC	3770	Society and the Environment*.....	3
HIS	3880	American Environmental History.....	3
GEG	3610	Principles of Land Use Planning*.....	3
COM	3670	Writing for the Environmental Industry*.....	3
ENV	3620	Population, Resources, and Land Use*.....	3

*\*Course has additional prerequisites; check current MSCD College Catalog for requirements.*

**Internship Requirement**

ENV	4950	Internship in Environmental Science .....	3
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**Senior Experience Graduation Requirement**

ENV	4970	Environmental Field Studies.....	3
		-or-	
BIO	4510	Microbial Ecology*.....	4
		-or-	
CHE	4950	Senior Experience in Chemistry*.....	3

*\*Course has additional prerequisites; check current MSCD College Catalog for requirements.*

<i>Total General Studies Course Requirements*</i> .....	36
<i>Environmental Science Required Core Courses</i> .....	36
<i>Multidisciplinary Requirements</i> .....	38
<i>Internship Requirement</i> .....	3
<i>Senior Experience Requirement</i> .....	3
<i>Unrestricted Electives*</i> .....	4
<i>Total for Environmental Science Degree: Multidisciplinary Concentration</i> .....	120

*\*The multicultural requirement of 3 hours must also be satisfied.*