

ENVIRONMENTAL ENGINEERING - PROFESSIONAL MASTER OF SCIENCE (MSENV)

The professional master's degree (MSENV) in environmental engineering is a coursework-only program that offers possibilities for a range of prospective students.

Whether a prospective student is a working engineer or an undergraduate considering widening their exposure to areas of environmental engineering, we have program options to meet their needs. Prospective professional master's degree students may choose between three different tracks:

- Environmental engineering
- Water reuse
- Water engineering & management

For more information, visit the department's Curriculum and Courses (<http://www.colorado.edu/even/prospective-students/graduate-studies/curriculum-and-courses/>) webpage.

Requirements

General Requirements

The following course requirements are subject to change; for the most current information, visit the Program's Curriculum and Courses (<http://www.colorado.edu/even/prospective-students/graduate-studies/curriculum-and-courses/>) webpage.

The professional master's degree requires 30 credit hours of graduate-level courses with a minimum cumulative GPA of 3.00.

For students who have undertaken prior graduate study, up to 9 semester credit hours of relevant graduate-level course work may be transferred to meet the course requirements for the MSENV degree, following the rules established by the Graduate School for transfer credit.

Program Tracks

General Environmental Engineering Track

Code	Title	Credit Hours
Required Courses		
CVEN 5464	Environmental Engineering Processes	3
CVEN 5404	Water Chemistry	3
or CHEM 5151	Atmospheric Chemistry	
CVEN 5484	Applied Microbiology and Toxicology	3
MCEN 5131	Air Pollution Control Engineering	
Electives		
Choose one of the following:		3
CVEN 5524	Drinking Water Treatment	
CVEN 5534	Wastewater Treatment	

Choose five additional electives in consultation with the student's faculty advisor.	15
Total Credit Hours	27

Water Reuse Track

Code	Title	Credit Hours
Required Courses		
CVEN 5464	Environmental Engineering Processes	3
CVEN 5484	Applied Microbiology and Toxicology	3
CVEN 5404	Water Chemistry	3
CVEN 5524	Drinking Water Treatment	3
CVEN 5534	Wastewater Treatment	3
Water Reuse Required Courses		
CVEN 5594	Water Reuse and Reclamation	3
CVEN 5834	Special Topics (Water Reuse Planning and Implementation)	3

Elective Courses		
<i>General Water Reuse Track:</i>		9
Choose one of the following		3

CVEN 5393	Water Resources System and Management	
CVEN 5834	Special Topics (Advanced Water Treatment)	

And choose two from the following or above: 6

CVEN 5564	Water Profession: Communication and Utility Finance	
CVEN 5574	Water Utility Management: Current Issues and Future Challenges	
CVEN 5424	Environmental Organic Chemistry	
EVEN 5584	Sustainable Engineering Design	

Water Reuse Management Track 9

CVEN 5393	Water Resources System and Management	
CVEN 5564	Water Profession: Communication and Utility Finance	
CVEN 5574	Water Utility Management: Current Issues and Future Challenges	

Water Reuse Advanced Technology Track 9

CVEN 5834	Special Topics (Advanced Water Treatment)	
EVEN 5584	Sustainable Engineering Design	
CVEN 5424	Environmental Organic Chemistry	

Total Credit Hours 30

Global Environmental Engineering Track

Code	Title	Credit Hours
Required Courses		
CVEN 5464	Environmental Engineering Processes	3
CVEN 5404	Water Chemistry	3
or CHEM 5151	Atmospheric Chemistry	
CVEN 5484	Applied Microbiology and Toxicology	3
CVEN 5919	Global Development for Engineers	3
CVEN 5939	Global Development Practicum	3

Global Engineering Series ¹

Choose one of the following:	3
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CVEN 5969	Water, Sanitation, and Hygiene
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MCEN 5228	Special Topics in Mechanical Engineering (Household Energy Systems in the Global South)
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Choose 6 one-credit modules from remaining Global Engineering Series offerings:	6
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EVEN 5004	Introduction to Humanitarian Aid
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EVEN 5014	Disaster Risk Reduction
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EVEN 5024	Refugees and Displacement
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CVEN 5837	Special Topics for Seniors/Grads (Program & Project Management (1), Solution Identification & Proposal Development (1), Community Appraisal (1), Study Design & Impact Evaluation (1), Data Collection & Analysis Tools (1))
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CVEN 5838	Special Topics (Intro to Development Economics for Engineers (1), Intro to Global Health for Engineers (1))
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Electives

Choose one of the following:	3
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CVEN 5524	Drinking Water Treatment
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CVEN 5534	Wastewater Treatment
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MCEN 5131	Air Pollution Control Engineering
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Choose one additional elective in consultation with the student's faculty advisor.	3
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Total Credit Hours	30
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¹ Global Engineering Series course options can be found on the Mortenson Center website (<https://www.colorado.edu/center/mortenson/graduate-education/professional-masters-degrees/>).