ENVIRONMENTAL POLICY AND MANAGEMENT

The Energy and Sustainability master’s degree concentration may be earned online or in a combination of online, on campus, and hybrid courses at the University of Denver in the evenings to meet the needs of busy adults. Students will establish a solid foundation in energy and sustainability concepts, and then learn to integrate environmental systems, put policy into practice, and develop effective sustainability plans. Regulatory and policy issues related to energy development, implementation, and use, energy finance, and alternative and renewable energy processes will be examined, along with renewable energy sources, plans for integration, and trends within the field of energy.

Sustainable systems must be considered and developed in the areas of growth, transportation, energy, policy, and business models in order to head off looming environmental, political, and humanitarian problems. This will be accomplished through a comprehensive study of sustainability in the areas of economic development, green building, land use, transportation, and water resources. Customize your Environmental Policy and Management master’s degree through the innovative Professional Options Curriculum using our convenient online degree builder tool, which allows you to select courses that cater to your specific career needs.

This degree prepares students to do the following:

- Demonstrate a solid understanding of how non-renewable and renewable energy sources are developed, used, regulated, and financed
- Articulate a strong working knowledge of sustainability concepts
- Show an understanding of trends and issues in areas of traffic management, climate science, water supplies, and green buildings
- Develop plans for the integration of sustainable practices into products, business and marketing plans, environmental policies, and organizational processes
- Build finance schemes and marketing strategies for their plans so they can be presented to an organization leader as an executable idea

Master of Science in Environmental Policy and Management with a concentration in Environmental Analytics and Reporting

The Environmental Analytics and Reporting master’s degree concentration may be earned online or in a combination of online, on campus, and hybrid courses at the University of Denver in the evenings to meet the needs of busy adults. This certificate and concentration emphasizes learning how to utilize the tools and insights of the data analytics revolution to perform sophisticated environmental analyses and reports. Students learn possible uses of data analytics in an era of sustainability and ever-increasing complexity to manage the environmental elements of their organizations more effectively. Constructively reporting these results, trends, and accomplishments is an important avenue of communication in any organization.

Environmental professionals will learn to identify and obtain a data set from a publicly traded company, from their own organization, or another public or governmental source suitable to use for carrying out analytics projects. Clear questions will be formulated and framed; analytical algorithms will be run on cloud technologies to reveal relevant insight into environmental issues. Context for these analyses will be provided through study of ISO 14001, fundamental U.S. environmental statutes, and governmental and NGO environmental reporting standards and requirements.

This degree prepares students to do the following:

- Analyze the value, function, and use of data and analytics and assess the promise of cognitive computing techniques
- Assess effective management techniques for analytics projects by evaluating the people and process implementations and changes associated with data and analytics efforts
- Differentiate between the most commonly used analytical techniques and formulate business cases and define an analytics modeling pilot project for data and analytics initiatives specific to your field
- Evaluate how and when to use analytics to create or enhance business value.
• Apply the ISO 14001 framework as a proactive and systematic approach to environmental management develop ISO 14001 environmental policies including objectives and targets, implement an environmental management program, monitor and measure program results, and review the program to ensure continual improvement.

• Make informed judgments based on the requirements of, and interrelationships of, key environmental statutes including: National Environmental Policy Act (NEPA), Clean Air Act (CAA), Clean Water Act (CWA), Resource Conservation and Recovery Act (RCRA), Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), Emergency Planning and Community Right-to-Know Act (EPCRA), Occupational Safety and Health Act (OSHA), and related toxics laws; and the legal system and the roles of Congress, the President, executive agencies, states, and courts in shaping environmental laws.

• Conduct analyses and craft reports addressing SEC requirements and NGO standards, e.g., the 30 GRI environmental performance indicators, and Sustainability Accounting Standards Board recommendations.

• Design and perform analyses on a structured data set using a choice of software analysis and statistics tools and craft the environmental reporting elements of organizational reports addressing matters such as sustainability, risk, efficiency, impacts, permit status, routine releases, unplanned events, strategies, operations monitoring, management monitoring, ethics, stakeholder perceptions, innovation, and collaboration.

Master of Science in Environmental Policy and Management with a concentration in Environmental Assessment of Nuclear Power

The Environmental Assessment of Nuclear Power master's degree concentration may be earned online or in a combination of online, on campus, and hybrid courses at the University of Denver in the evenings to meet the needs of busy adults. This degree addresses the requirements and topics needed for any Environmental Impact Statement (EIS), as well as the human health and environmental risks associated with the use of radioactive materials. Students will be prepared with essential knowledge to complete, analyze, and enhance Environmental Impact Statements—documents that provide valuable information about proposed development processes of nuclear energy. The program will also support the educational infrastructure that allows the nation to move forward with its nuclear energy initiatives by promoting and strengthening the teaching/learning needs in environmental protection around nuclear sites and installations, including uranium mines and milling facilities.

The master's degree concentration in Environmental Assessment of Nuclear Power goes beyond environmental basics; students will understand the role of scientific quantification of nuclear project action and the interaction with the environment, while pursuing alternative power solutions that contribute to the sustainable development of nuclear energy. Learn the laws and policy associated with nuclear energy and become an expert in the interaction between nuclear power and the environment. Customize your Environmental Policy and Management master's degree through the innovative Professional Options Curriculum using our convenient online degree builder tool, which allows you to select courses that cater to your specific career needs.

This degree prepares students to do the following:

• Develop the skills necessary to prepare an EIS, and their interdisciplinary nature
• Develop the ability to critically analyze the EIS document and the implementation policy process
• Understand the role of scientific quantification of nuclear project action and the interaction with the environment
• Enhance the individual and team skills necessary in the preparation of an EIS
• Advance knowledge in nuclear energy policy and laws
• Develop a foundation for improving engineering design of nuclear systems and nuclear waste treatment facilities that would be friendlier to the environment
• Develop the capability to identify alternative design features that would be friendlier to the environment and contribute to sustainable development of nuclear energy

Master of Science in Environmental Policy and Management with a concentration in Environmental Health and Safety

The Environmental, Health and Safety master's degree concentration may be earned online or in a combination of online, on campus, and hybrid courses at the University of Denver in the evenings to meet the needs of busy adults. Whether students currently work in environmental health and safety positions for commercial or government operations, or aspire to, the Environmental, Health and Safety master's degree prepares them with the management skills and technical knowledge required to become a health and safety manager or officer. Students will begin with the foundational statutory and regulatory origins of environmental health and safety compliance management and learn how to effectively and efficiently streamline resources to integrate safety and health regulations across sectors and industries.

Critical instruction is given on relevant training, emergency planning, procedural operations, and the management of worker health and safety, in addition to environmental management and reporting systems and business and finance strategy. Customize your Environmental Policy and
Management master’s degree through the innovative Professional Options Curriculum using our convenient online degree builder tool, which allows you to select courses that cater to your specific career needs.

This degree prepares students to do the following:

- Evaluate the benefits and barriers to integration of environmental health and safety including the fundamentals of safety management, training requirements, emergency planning, setting goals, objectives, and operating procedures, and how management views environmental health and safety

- Describe the Occupational Safety and Health Act and other rules governing workplace safety with emphasis on the overlap between safety and environmental laws, OSHA’s inspection and enforcement authority, employee and employer rights and record keeping requirements

- Develop and apply compliance programs including how to reduce losses of direct and indirect costs due to accidents and how to convince management and employees that safety programs are beneficial

- Investigate workplace safety topics including costs of accidents, investigation programs, practical application of worker’s compensation, confined space entry programs, injury/illness records and reporting, programs for new fall protective rules and personal protective equipment programs

Master of Science in Environmental Policy and Management with a concentration in Environmental Management

The Environmental Management master’s degree concentration may be earned online or in a combination of online, on campus, and hybrid courses at the University of Denver in the evenings to meet the needs of busy adults. Master’s degree students will learn environmental management and leadership essentials, providing them with critical knowledge related to technology, law, and economics as they each relate to the environment. Facilitating environmental innovation, development plans, and integration will be discussed, along with essential permitting and regulatory issues that environmental managers need.

Students in the Environmental Management master’s concentration will receive engaging instruction from professional practitioners who work in the fields in which they teach in topics ranging from economics to law, leadership to regulations, as each topic relates to the environment. Designed for students seeking a combination of leadership, policy, and environmental issue education, the concentration prepares graduates to address and manage complex environmental systems. Customize your Environmental Management master’s degree through the innovative Professional Options Curriculum using our convenient online degree builder tool, which allows you to select courses that cater to your specific career needs.

This degree prepares students to do the following:

- Examine the requirements and implementation strategies of the National Environmental Policy Act and the requirements of various federal agencies which are responsible for National Environmental Policy Act implementation.

- Critique Environmental Impact Statements and Environmental Assessments for regulatory compliance and thoroughness in disclosing environmental effects of proposed actions.

- Investigate the Resource Conservation and Recovery Act’s regulations governing performance requirements for treatment, storage and disposal of solid and hazardous waste generation and disposal.

- Explain and summarize developing trends in waste minimization, solid waste management and special waste controls.

- Demonstrate how to use the ISO 14001 framework as a proactive and systematic approach to environmental management and develop a complete program that integrates the ISO 14001 requirements with the existing strategic management methods of an organization.

- Assess personal leadership attributes and construct a personal leadership development plan that integrates leadership principles necessary for advancement including interpersonal communication and leading environmental innovation using the natural world as a model.

Master of Science in Environmental Policy and Management with a concentration in Environmental Policy

The Environmental Policy master’s degree concentration may be earned online or in a combination of online, on campus, and hybrid courses at the University of Denver in the evenings to meet the needs of busy adults. Designed for professionals working in organizations focused on environmental policy development or advocacy such as legislatures, regulatory agencies, consultants, and advocacy groups, the Environmental Policy master’s concentration provides students with policy analysis and development skills needed to serve as a senior analyst or manager within a policy-making organization.

Students will receive valuable instruction—from professional practitioners who work in the fields in which they teach—in topics ranging from economics to law, ethics to finance, as each topic relates to environmental policy. A master’s degree concentration in Environmental Policy will prepare students for careers that impact environmental decisions. Foundational public environmental policy analysis will be discussed, including
contemporary methods for analytical model development, implementation, and evaluation. Customize your Environmental Policy and Management master’s degree through the innovative Professional Options Curriculum using our convenient online degree builder tool, which allows you to select courses that cater to your specific career needs.

This degree prepares students to do the following:

• Outline the legal and philosophical underpinnings of the environmental movement, both in the United States and internationally, including the use of international laws and treaties to mitigate, lessen, or eliminate damage to various aspects of the environment.

• Analyze global environmental issues including endangered species, overpopulation, resource depletion, biodiversity, ocean dumping, deforestation, desertification, global warming, and ozone depletion.

• Explain how to encourage sustainability through consumption patterns that ensure a continuing resource supply for future generations and through achieving a balance between environmental protection and economic development.

• Describe the field of public environmental policy including contemporary methods of policy analysis, agenda-setting, models of policy formulation and implementation, and policy evaluation.

• Examine ethical considerations in environmental management and decision making and explore various philosophies of humankind’s relationship with the environment.

• Develop and express a personal philosophy addressing one’s own role in the regulatory, technical, scientific, and financial management of the environment.

Master of Science in Environmental Policy and Management with a concentration in Natural Resource Management

The Natural Resource Management master’s degree concentration may be earned online or in a combination of online, on campus, and hybrid courses at the University of Denver in the evenings to meet the needs of busy adults. Designed for professionals whose primary interest is the management of natural resources for organizations which plan or regulate the use of natural resources, or commercial operations which extract and use natural resources (e.g., mining or forestry management), the Natural Resource Management concentration prepares students to work in professional roles overseeing natural resource management for commercial or government purposes. Learn historic and contemporary management systems and principles, along with key policies and procedures needed to excel in the public or private sectors related to natural resource management.

Degree-seeking students are exposed to a breadth of knowledge pertaining to natural resources, water management, zoning, forestry management, mining, and land use issues. Focused skills concentrate on technology, management, and communication knowledge that is critical to success in the natural resource management field. Customize your Environmental Policy and Management master’s degree through the innovative Professional Options Curriculum using our convenient online degree builder tool, which allows you to select courses that cater to your specific career needs.

This degree prepares students to do the following:

• Analyze the practical and theoretical basis of recreational land use in the context of ecosystem management and explore the responsibilities of various federal, state and local agencies, environmental and wildlife interest groups, and other organizations involved in wildlife management issues.

• Discuss the statutory and regulatory policies and current issues regarding the management and use of lands in wilderness systems, wild and scenic river corridors, parks, and open spaces.

• Explain historic and contemporary management systems and principles by examining key policies, guidelines, and planning procedures of governmental agencies, resource-based industry and the public.

• Describe how the biological, physical, social, and economic aspects of lands, waters, and natural resources work together to achieve sustainable conditions that encourage preservation and management of natural resources for recreation.

• Investigate the basic principles, trends, challenges, and controversies of the administration of maintaining certain wildlife species including threats from water and air pollution, poaching and other illegal actions.

• Characterize the field of public environmental policy including contemporary methods of policy analysis, agenda-setting, models of policy formulation and implementation, and policy evaluation.

Certificate in Environmental Policy and Management with a concentration in Energy and Sustainability

The graduate certificate in Energy and Sustainability concentration may be earned online or in a combination of online, on campus, and hybrid courses at the University of Denver in the evenings to meet the needs of busy adults. Busy adults who already hold master’s degrees, or professionals
who work within the field of energy development, will benefit from a graduate certificate in Energy and Sustainability, a dynamic field that is emerging in importance and popularity. Ideal for students seeking further study related to sustainable systems, energy development and use, energy finance, and alternative and renewable energy process, the graduate certificate in Energy and Sustainability may be earned online or on campus in the evenings. Students will develop integration strategies, build finance schemes and marketing plans, articulate a strong working knowledge of sustainability concepts, and learn about energy and sustainability systems.

Sustainable systems must be considered and developed in the areas of growth, transportation, energy, policy, and business models in order to head off looming environmental, political, and humanitarian problems. This will be accomplished through a comprehensive study of sustainability in the areas of economic development, green building, land use, transportation, and water resources. Credits earned through this graduate certificate may apply toward a master’s degree in Environmental Policy and Management.

Certificate in Environmental Policy and Management with a concentration in Environmental Analytics and Reporting

The Environmental Analytics and Reporting master’s degree concentration may be earned online or in a combination of online, on campus, and hybrid courses at the University of Denver in the evenings to meet the needs of busy adults. This certificate and concentration emphasizes learning how to utilize the tools and insights of the data analytics revolution to perform sophisticated environmental analyses and reports. Students learn possible uses of data analytics in an era of sustainability and ever-increasing complexity to manage the environmental elements of their organizations more effectively. Constructively reporting these results, trends, and accomplishments is an important avenue of communication in any organization. Environmental professionals will learn to identify and obtain a data set from a publicly traded company, from their own organization, or another public or governmental source suitable to use for carrying out analytics projects. Clear questions will be formulated and framed; analytical algorithms will be run on cloud technologies to reveal relevant insight into environmental issues. Context for these analyses will be provided through study of ISO 14001, fundamental U.S. environmental statutes, and governmental and NGO environmental reporting standards and requirements.

Certificate in Environmental Policy and Management with a concentration in Environmental Assessment of Nuclear Power

The graduate certificate in Environmental Assessment of Nuclear Power concentration may be earned online or in a combination of online, on campus, and hybrid courses at the University of Denver in the evenings to meet the needs of busy adults. The graduate certificate addresses the requirements and topics needed for any Environmental Impact Statement (EIS), as well as the human health and environmental risks associated with the use of radioactive materials. Graduate certificate students will be prepared with essential knowledge to complete, analyze, and enhance Environmental Impact Statements-documents that provide valuable information about proposed development processes of nuclear energy. The graduate certificate program will also support the educational infrastructure that allows the nation to move forward with its nuclear energy initiatives by promoting and strengthening the teaching/learning needs in environmental protection around nuclear sites and installations, including uranium mines and milling facilities.

The graduate certificate in Environmental Assessment of Nuclear Power goes beyond environmental basics; certificate students will understand the role of scientific quantification of nuclear project action and the interaction with the environment, while pursuing alternative power solutions that contribute to the sustainable development of nuclear energy. Learn the laws and policy associated with nuclear energy and become an expert in the interaction between nuclear power and the environment. Credits earned through this graduate certificate may apply toward a master’s degree in Environmental Policy and Management.

Certificate in Environmental Policy and Management with a concentration in Environmental Health and Safety

The graduate certificate in Environmental, Health and Safety concentration may be earned online or in a combination of online, on campus, and hybrid courses at the University of Denver in the evenings to meet the needs of busy adults. Designed and delivered for professionals who already holds a master’s degree, or for professionals looking to further their environmental career with a new skillset, the graduate certificate in Environmental, Health and Safety concentration may be earned online or on campus in the evenings. Certificate students will explore the foundational statutory and regulatory origins of environmental health and safety compliance management and learn how to effectively and efficiently streamline resources to integrate safety and health regulations across sectors and industries.

Students pursuing this graduate certificate, either online or on campus, will acquire environmental management skills and technical knowledge that prepare them to work with health and safety statutes and regulations, management of worker health and safety issues, environmental management and reporting systems, and business and finance. Credits earned through this graduate certificate may apply toward a master’s degree in Environmental Policy and Management.

Certificate in Environmental Policy and Management with a concentration in Environmental Management

The graduate certificate in Environmental Management concentration may be earned online or in a combination of online, on campus, and hybrid courses at the University of Denver in the evenings to meet the needs of busy adults. Environmental Management certificate students will develop...
essential management skills and technical knowledge required to function in a variety of managerial positions within the environmental field. Certificate students learn to facilitate environmental innovation and integrate systems while complying with regulatory and policy matters.

The Environmental Management certificate is designed for busy adults who already hold a master's degree, or for professionals looking to further their environmental career with a new skillset in leadership, policy, and environmental issues. The graduate certificate in Environmental Management concentration provides detailed instruction on statutes and regulations, management and reporting systems, business and finance strategy, and communication and negotiation skills as they each relate to environmental management. Environmental Management graduate certificate students take master's-level classes but do not complete a capstone project. Credits earned through this graduate certificate may apply toward a master's degree in Environmental Policy and Management.

Certificate in Environmental Policy and Management with a concentration in Environmental Policy

The graduate certificate in Environmental Policy concentration may be earned online or in a combination of online, on campus, and hybrid courses at the University of Denver in the evenings to meet the needs of busy adults. Designed and delivered for professionals who already hold master's degrees or for those looking to further their environmental career with a new skillset, the graduate certificate in Environmental Policy concentration is ideal for adult students seeking an innovative, career relevant graduate certificate. Environmental policy analysis at the public level will be discussed, including contemporary methods for analytical model development, implementation, and evaluation.

Environmental Management and Policy students who are currently in the field of environmental policy, or for those aspiring to join the field, will develop skills through the online graduate certificate program that will serve them well in a policy making organization, such as values and ethics, communication and negotiation, policy analysis, and environmental laws and regulations. Environmental Policy graduate certificate students take master’s level classes, but do not complete a capstone project. Credits earned through this graduate certificate may apply toward a master's degree in Environmental Policy and Management.

Certificate in Environmental Policy and Management with a concentration in Natural Resource Management

The Natural Resource Management graduate certificate concentration may be earned online or in a combination of online, on campus, and hybrid courses at the University of Denver in the evenings to meet the needs of busy adults. Designed for professionals who already hold master's degrees, or for busy adults looking to further their environmental career with a new skillset, the graduate certificate in Natural Resource Management will prepare students to work in natural resource management roles for commercial or government organizations. Certificate students will learn historic and contemporary management systems and principles, in addition to essential policies and procedures needed to thrive in natural resource management in the public or private sectors.

The graduate certificate is designed for professionals whose primary interest is the management of natural resources for organizations which plan or regulate the use of natural resources, or commercial operations which extract and use natural resources. Graduate certificate students will develop organizational leadership skills and learn environmental statutes and regulations pertaining to natural resource management. Credits earned through this graduate certificate may apply toward a master's degree in Environmental Policy and Management.

Master's Degree Admission

Application Deadlines

- Fall 2017 Final Submission Deadline: July 28, 2017
- Fall 2017 Deadline for Applicants Educated Outside the U.S.: June 16, 2017
- Winter 2018 Final Submission Deadline: November 3, 2017
- Winter 2018 Deadline for Applicants Educated Outside the U.S.: September 29, 2017
- Spring 2018 Final Submission Deadline: February 9, 2018
- Spring 2018 Deadline for Applicants Educated Outside the U.S.: January 5, 2018
- Summer 2018 Final Submission Deadline: April 27, 2018
- Summer 2018 Deadline for Applicants Educated Outside the U.S.: March 23, 2018

Admission Requirements

- Online admission application
- $75.00 Application Fee
- University Minimum Degree and GPA Requirements
- Letters of Recommendation: Two (2) letters of recommendation are required. Letters should be submitted by recommenders through the online application.
• **Personal Statement**: A personal statement (two pages double spaced, 450-550 words) is required. The statement should include information on how the degree will enhance career plans and meet educational goals. Some questions to consider are (a) what do you expect to learn and achieve in your degree program? (b) what kind of professional position do you anticipate having five years after you earn this degree? (c) what experiences have you had that form the foundation for these career or educational goals? Sharing personal experiences, abilities, achievements, and goals is encouraged. This document has considerable influence in the decision to admit applicants with attention given to written communication skills, clarity, and organization.

• **Résumé**: The résumé (or C.V.) should include work experience, research, and/or volunteer work.

**Additional Standards for Non-Native English Speakers**

Official scores from the Test of English as a Foreign Language (TOEFL), International English Language Testing System (IELTS) or Cambridge English: Advanced (CAE) are required of all graduate applicants, regardless of citizenship status, whose native language is not English or who have been educated in countries where English is not the native language. The minimum TOEFL/IELTS/CAE test score requirements for the degree program are:

- **Minimum TOEFL Score** (paper-based test): 550
- **Minimum TOEFL Score** (internet-based test): 80 with minimum of 20 on each subscore
- **Minimum IELTS Score**: 6.5 with minimum of 6.0 on each band score
- **Minimum CAE Score**: 176 with minimum of 169 on each band score

**English Conditional Admission Offered**: Master’s degree applicants who do not meet the required level of English proficiency may be considered for conditional acceptance if all other admission criteria are met. Prior to enrolling in any graduate-level coursework, English Conditional Acceptance (ECA) requires an evaluation by the University of Denver’s English Language Center (ELC) and successful completion of intensive ELC English courses including the Graduate Preparation Program. Academic classes may not be taken while students are enrolled at the English Language Center. As an alternative to the English Language Center, an applicant may become fully admitted by submitting sufficient TOEFL/ Academic IELTS/CAE scores.


**Additional Standards for International Applicants**

Per Student & Exchange Visitor Program (SEVP) regulation, international applicants must meet all standards for admission before an I-20 or DS-2019 is issued, [per U.S. Federal Register: 8 CFR § 214.3(k)] or is academically eligible for admission and is admitted [per 22 C.F.R. §62]. Read the Additional Standards For International Applicants ([http://bulletin.du.edu/graduate/admission-and-enrollment-policies/additional-standards-for-international-applicants](http://bulletin.du.edu/graduate/admission-and-enrollment-policies/additional-standards-for-international-applicants)) policy for more details.

**Financial Aid**

There are many different options available to finance your education. Most University of Denver graduate students are granted some type of financial support. Our Office of Financial Aid is committed to helping you explore your options.

**Certificate Admission**

**Application Deadlines**

- **Fall 2017 Final Submission Deadline**: July 28, 2017
- **Fall 2017 Deadline for Applicants Educated Outside the U.S.**: June 16, 2017
- **Winter 2018 Final Submission Deadline**: November 3, 2017
- **Winter 2018 Deadline for Applicants Educated Outside the U.S.**: September 29, 2017
- **Spring 2018 Final Submission Deadline**: February 9, 2018
- **Spring 2018 Deadline for Applicants Educated Outside the U.S.**: January 5, 2018
- **Summer 2018 Final Submission Deadline**: April 27, 2018
- **Summer 2018 Deadline for Applicants Educated Outside the U.S.**: March 23, 2018

**Admission Requirements**

- **Online Admission Application**
- **$50.00 Application Fee**
- **University Minimum Degree and GPA Requirements**
Transcripts: One official transcript from each post-secondary institution. Résumé: The résumé (or C.V.) should include work experience, research, and/or volunteer work.

Admission Standards for Non-Native English Speakers
Official scores from the Test of English as a Foreign Language (TOEFL), International English Language Testing System (IELTS) or Cambridge English: Advanced (CAE) are required of all graduate applicants, regardless of citizenship status, whose native language is not English or who have been educated in countries where English is not the native language. The minimum TOEFL/IELTS/CAE test score requirements for the degree program are:

- Minimum TOEFL Score (paper-based test): 550
- Minimum TOEFL Score (internet-based test): 80 with minimum of 20 on each subscore
- Minimum IELTS Score: 6.5 with minimum of 6.0 on each band score
- Minimum CAE Score: 176 with minimum of 169 on each band score
- English Conditional Admission Offered: No, University College certificate programs do not offer English Conditional Admission.

Read the English Language Proficiency policy for more details.
Read the English Conditional Admission (ECA) policy for more details.
Read the Required Tests for GTA Eligibility policy for more details.

Additional Standards for International Applicants
Per Student & Exchange Visitor Program (SEVP) regulation, international applicants must meet all standards for admission before an I-20 or DS-2019 is issued, or is academically eligible for admission and is admitted. Read the Additional Standards For International Applicants policy for more details.

Financial Aid
There are many different options available to finance your education. Most University of Denver graduate students are granted some type of financial support. Our Office of Financial Aid is committed to helping you explore your options.

Master of Science in Environmental Policy and Management with a Concentration in Energy and Sustainability
Degree Requirements

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>EPM 4003</td>
<td>Environmental Finance and Economics</td>
<td>4</td>
</tr>
<tr>
<td>EPM 4200</td>
<td>Environmental Protection Law</td>
<td>4</td>
</tr>
<tr>
<td>EPM 4001</td>
<td>Environmental Foundations and Principles</td>
<td>4</td>
</tr>
<tr>
<td>or EPM 4115</td>
<td>Introduction to Ecology</td>
<td></td>
</tr>
<tr>
<td>or EPM 4710</td>
<td>Environmental Project Management</td>
<td></td>
</tr>
<tr>
<td>EPM 4910</td>
<td>Research Practices and Applications</td>
<td>4</td>
</tr>
<tr>
<td>EPM 4901</td>
<td>Capstone Project</td>
<td>4</td>
</tr>
<tr>
<td>or EPM 4902</td>
<td>Capstone Seminar</td>
<td></td>
</tr>
<tr>
<td>or EPM 4904</td>
<td>Interdisciplinary Capstone Seminar</td>
<td></td>
</tr>
</tbody>
</table>

Concentration requirements

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>EPM 4002</td>
<td>Integrated Environmental Systems</td>
<td>4</td>
</tr>
<tr>
<td>EPM 4230</td>
<td>Energy Fundamentals</td>
<td>4</td>
</tr>
<tr>
<td>EPM 4232</td>
<td>Sustainability:Policy and Practice</td>
<td>4</td>
</tr>
<tr>
<td>EPM 4233</td>
<td>Sustainable Transportation</td>
<td>4</td>
</tr>
</tbody>
</table>

Elective requirements (Choose three courses):

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>EPM 4234</td>
<td>Climate Change and Science</td>
<td></td>
</tr>
<tr>
<td>EPM 4235</td>
<td>Green Building</td>
<td></td>
</tr>
<tr>
<td>EPM 4236</td>
<td>Nuclear and Hydrogen Energy</td>
<td></td>
</tr>
</tbody>
</table>
Minimum number of credits required: 48

Students may choose from the elective options above, or they may work with their advisor to choose electives.

A satisfactory quality of achievement with a grade point average of "B" (3.0) or better is required in graduate coursework accepted for the degree. The average is determined on the basis of the University’s grading system. In no case, may more than one-fourth of the hours accepted toward the degree be of “C” grade. A grade lower than “C” renders the credit unacceptable for meeting degree requirements. Students must earn a grade of B- or better in the Capstone Project or Capstone Seminar.

Master of Science in Environmental Policy and Management with a Concentration in Environmental Analytics and Reporting

Degree Requirements

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>EPM 4003</td>
<td>Environmental Finance and Economics</td>
<td>4</td>
</tr>
<tr>
<td>EPM 4200</td>
<td>Environmental Protection Law</td>
<td>4</td>
</tr>
<tr>
<td>EPM 4001</td>
<td>Environmental Foundations and Principles</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>or EPM 4115 Introduction to Ecology</td>
<td></td>
</tr>
<tr>
<td></td>
<td>or EPM 4710 Environmental Project Management</td>
<td></td>
</tr>
<tr>
<td>EPM 4910</td>
<td>Research Practices and Applications</td>
<td>4</td>
</tr>
<tr>
<td>EPM 4901</td>
<td>Capstone Project</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>or EPM 4902 Capstone Seminar</td>
<td></td>
</tr>
<tr>
<td></td>
<td>or EPM 4904 Interdisciplinary Capstone Seminar</td>
<td></td>
</tr>
</tbody>
</table>

Concentration requirements

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>EPM 4610</td>
<td>Analytics I</td>
<td>4</td>
</tr>
<tr>
<td>EPM 4615</td>
<td>Analytics II</td>
<td>4</td>
</tr>
<tr>
<td>EPM 4620</td>
<td>Environmental Reporting Standards and Models</td>
<td>4</td>
</tr>
<tr>
<td>EPM 4625</td>
<td>Environmental Analysis and Reporting Project</td>
<td>4</td>
</tr>
</tbody>
</table>

Elective requirements (Choose three courses):

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>EPM 4002</td>
<td>Integrated Environmental Systems</td>
<td></td>
</tr>
<tr>
<td>EPM 4355</td>
<td>ISO 14001 Standards</td>
<td></td>
</tr>
<tr>
<td>EPM 4500</td>
<td>Leadership for Environmental Managers</td>
<td></td>
</tr>
<tr>
<td>EPM 4710</td>
<td>Environmental Project Management</td>
<td></td>
</tr>
<tr>
<td>EPM 4980</td>
<td>Internship</td>
<td></td>
</tr>
</tbody>
</table>

Total Credits 48

Minimum number of credits required: 48

Students may choose from the elective options above, or they may work with their advisor to choose electives.

A satisfactory quality of achievement with a grade point average of "B" (3.0) or better is required in graduate coursework accepted for the degree. The average is determined on the basis of the University’s grading system. In no case, may more than one-fourth of the hours accepted toward the degree be of “C” grade. A grade lower than “C” renders the credit unacceptable for meeting degree requirements. Students must earn a grade of B- or better in the Capstone Project or Capstone Seminar.

Master of Science in Environmental Policy and Management with a Concentration in Environmental Assessment of Nuclear Power

Degree Requirements

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Core coursework requirements</td>
<td></td>
</tr>
</tbody>
</table>
EPM 4003  Environmental Finance and Economics  4
EPM 4200  Environmental Protection Law  4
EPM 4001  Environmental Foundations and Principles  4
  or EPM 4115  Introduction to Ecology  
  or EPM 4710  Environmental Project Management  
EPM 4910  Research Practices and Applications  4
EPM 4901  Capstone Project  4
  or EPM 4902  Capstone Seminar  
  or EPM 4904  Interdisciplinary Capstone Seminar  

Concentration requirements

EPM 4461  Assessment of Social Impacts  4
EPM 4462  Ecology, Soil, and Water  4
EPM 4463  Air Quality, Noise and Transportation  4
EPM 4465  Environmental Restoration and Waste Management  4

Elective requirements (Choose three courses):  12

  EPM 4002  Integrated Environmental Systems  
  EPM 4236  Nuclear and Hydrogen Energy  
  EPM 4460  Land And Visual Resources  
  EPM 4464  Nuclear Power Plant Systems  
  EPM 4980  Internship  

Total Credits  48

Minimum number of credits required: 48

Students may choose from the elective options above, or they may work with their advisor to choose electives.

A satisfactory quality of achievement with a grade point average of "B" (3.0) or better is required in graduate coursework accepted for the degree. The average is determined on the basis of the University's grading system. In no case, may more than one-fourth of the hours accepted toward the degree be of "C" grade. A grade lower than "C" renders the credit unacceptable for meeting degree requirements. Students must earn a grade of B- or better in the Capstone Project or Capstone Seminar.

Master of Science in Environmental Policy and Management with a Concentration in Environmental Health and Safety

Degree Requirements

Code  Title  Credits

Core coursework requirements

EPM 4003  Environmental Finance and Economics  4
EPM 4200  Environmental Protection Law  4
EPM 4001  Environmental Foundations and Principles  4
  or EPM 4115  Introduction to Ecology  
  or EPM 4710  Environmental Project Management  
EPM 4910  Research Practices and Applications  4
EPM 4901  Capstone Project  4
  or EPM 4902  Capstone Seminar  
  or EPM 4904  Interdisciplinary Capstone Seminar  

Concentration requirements

EPM 4280  RCRA Permitting and Compliance  4
EPM 4510  Environmental Health & Safety  4
EPM 4520  OSHA Law  4
EPM 4525  Workplace Safety Management  4

Elective requirements (Choose three courses):  12

  EPM 4002  Integrated Environmental Systems  
  EPM 4500  Leadership for Environmental Managers  
  EPM 4705  Land Use Planning  

Minimum number of credits required: 48

Students may choose from the elective options above, or they may work with their advisor to choose electives.

A satisfactory quality of achievement with a grade point average of "B" (3.0) or better is required in graduate coursework accepted for the degree. The average is determined on the basis of the University’s grading system. In no case, may more than one-fourth of the hours accepted toward the degree be of "C" grade. A grade lower than "C" renders the credit unacceptable for meeting degree requirements. Students must earn a grade of B- or better in the Capstone Project or Capstone Seminar.

Master of Science in Environmental Policy and Management with a Concentration in Environmental Management

Degree Requirements

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Core coursework requirements</td>
<td></td>
</tr>
<tr>
<td>EPM 4003</td>
<td>Environmental Finance and Economics</td>
<td>4</td>
</tr>
<tr>
<td>EPM 4200</td>
<td>Environmental Protection Law</td>
<td>4</td>
</tr>
<tr>
<td>EPM 4001</td>
<td>Environmental Foundations and Principles</td>
<td>4</td>
</tr>
<tr>
<td>or EPM 4115</td>
<td>Introduction to Ecology</td>
<td></td>
</tr>
<tr>
<td>or EPM 4710</td>
<td>Environmental Project Management</td>
<td></td>
</tr>
<tr>
<td>EPM 4910</td>
<td>Research Practices and Applications</td>
<td>4</td>
</tr>
<tr>
<td>EPM 4901</td>
<td>Capstone Project</td>
<td>4</td>
</tr>
<tr>
<td>or EPM 4902</td>
<td>Capstone Seminar</td>
<td></td>
</tr>
<tr>
<td>or EPM 4904</td>
<td>Interdisciplinary Capstone Seminar</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Concentration requirements</td>
<td></td>
</tr>
<tr>
<td>EPM 4140</td>
<td>NEPA</td>
<td>4</td>
</tr>
<tr>
<td>EPM 4280</td>
<td>RCRA Permitting and Compliance</td>
<td>4</td>
</tr>
<tr>
<td>EPM 4355</td>
<td>ISO 14001 Standards</td>
<td>4</td>
</tr>
<tr>
<td>EPM 4500</td>
<td>Leadership for Environmental Managers</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>Elective requirements (Choose three courses)</td>
<td>12</td>
</tr>
<tr>
<td>EPM 4002</td>
<td>Integrated Environmental Systems</td>
<td></td>
</tr>
<tr>
<td>EPM 4390</td>
<td>Environmental Policy Analysis</td>
<td></td>
</tr>
<tr>
<td>EPM 4980</td>
<td>Internship</td>
<td></td>
</tr>
</tbody>
</table>

Total Credits: 48

Minimum number of credits required: 48

Students may choose from the elective options above, or they may work with their advisor to choose electives.

A satisfactory quality of achievement with a grade point average of "B" (3.0) or better is required in graduate coursework accepted for the degree. The average is determined on the basis of the University’s grading system. In no case, may more than one-fourth of the hours accepted toward the degree be of "C" grade. A grade lower than "C" renders the credit unacceptable for meeting degree requirements. Students must earn a grade of B- or better in the Capstone Project or Capstone Seminar.

Master of Science in Environmental Policy and Management with a Concentration in Environmental Policy

Degree Requirements

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Core coursework requirements</td>
<td></td>
</tr>
<tr>
<td>EPM 4003</td>
<td>Environmental Finance and Economics</td>
<td>4</td>
</tr>
<tr>
<td>EPM 4200</td>
<td>Environmental Protection Law</td>
<td>4</td>
</tr>
<tr>
<td>EPM 4001</td>
<td>Environmental Foundations and Principles</td>
<td>4</td>
</tr>
</tbody>
</table>
or EPM 4115  
or EPM 4710  
EPM 4910  
EPM 4901  
or EPM 4902  
or EPM 4904  
Concentration requirements  
EPM 4150  
EPM 4232  
EPM 4390  
EPM 4400  
Elective requirements (Choose three courses):  
EPM 4002  
EPM 4108  
EPM 4140  
EPM 4355  
EPM 4980  
Minimum number of credits required: 48  
Students may choose from the elective options above, or they may work with their advisor to choose electives.  
A satisfactory quality of achievement with a grade point average of "B" (3.0) or better is required in graduate coursework accepted for the degree. The average is determined on the basis of the University's grading system. In no case, may more than one-fourth of the hours accepted toward the degree be of "C" grade. A grade lower than "C" renders the credit unacceptable for meeting degree requirements. Students must earn a grade of B- or better in the Capstone Project or Capstone Seminar.
Certificate in Environmental Policy and Management with a Concentration in Energy and Sustainability

Program Requirements

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td><strong>Concentration requirements</strong></td>
<td></td>
</tr>
<tr>
<td>EPM 4002</td>
<td>Integrated Environmental Systems</td>
<td>4</td>
</tr>
<tr>
<td>EPM 4230</td>
<td>Energy Fundamentals</td>
<td>4</td>
</tr>
<tr>
<td>EPM 4232</td>
<td>Sustainability: Policy and Practice</td>
<td>4</td>
</tr>
<tr>
<td>EPM 4233</td>
<td>Sustainable Transportation</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td><strong>Elective requirements (Choose two courses):</strong></td>
<td></td>
</tr>
<tr>
<td>EPM 4234</td>
<td>Climate Change and Science</td>
<td></td>
</tr>
<tr>
<td>EPM 4235</td>
<td>Green Building</td>
<td></td>
</tr>
<tr>
<td>EPM 4236</td>
<td>Nuclear and Hydrogen Energy</td>
<td></td>
</tr>
<tr>
<td>EPM 4237</td>
<td>Renewable Energy</td>
<td></td>
</tr>
<tr>
<td>EPM 4238</td>
<td>Water and Food Sustainability</td>
<td></td>
</tr>
<tr>
<td>EPM 4980</td>
<td>Internship</td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Total Credits</strong></td>
<td>24</td>
</tr>
</tbody>
</table>

Minimum number of credits required: 24

Certificate in Environmental Policy and Management with a Concentration in Environmental Analytics and Reporting

Program Requirements

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td><strong>Concentration requirements</strong></td>
<td></td>
</tr>
<tr>
<td>EPM 4610</td>
<td>Analytics I</td>
<td>4</td>
</tr>
<tr>
<td>EPM 4615</td>
<td>Analytics II</td>
<td>4</td>
</tr>
<tr>
<td>EPM 4620</td>
<td>Environmental Reporting Standards and Models</td>
<td>4</td>
</tr>
<tr>
<td>EPM 4625</td>
<td>Environmental Analysis and Reporting Project</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td><strong>Elective requirements (Choose two courses):</strong></td>
<td></td>
</tr>
<tr>
<td>EPM 4200</td>
<td>Environmental Protection Law</td>
<td></td>
</tr>
<tr>
<td>EPM 4355</td>
<td>ISO 14001 Standards</td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Total Credits</strong></td>
<td>24</td>
</tr>
</tbody>
</table>

Minimum number of credits required: 24

Certificate in Environmental Policy and Management with a Concentration in Environmental Assessment of Nuclear Power

Program Requirements

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td><strong>Concentration requirements</strong></td>
<td></td>
</tr>
</tbody>
</table>

Minimum number of credits required: 24
### Certificate in Environmental Policy and Management with a Concentration in Environmental Health and Safety

**Program Requirements**

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>EPM 4280</td>
<td>RCRA Permitting and Compliance</td>
<td>4</td>
</tr>
<tr>
<td>EPM 4510</td>
<td>Environmental Health &amp; Safety</td>
<td>4</td>
</tr>
<tr>
<td>EPM 4520</td>
<td>OSHA Law</td>
<td>4</td>
</tr>
<tr>
<td>EPM 4525</td>
<td>Workplace Safety Management</td>
<td>4</td>
</tr>
</tbody>
</table>

**Elective requirements (Choose two courses):**

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>EPM 4002</td>
<td>Integrated Environmental Systems</td>
<td></td>
</tr>
<tr>
<td>EPM 4140</td>
<td>NEPA</td>
<td></td>
</tr>
<tr>
<td>EPM 4236</td>
<td>Nuclear and Hydrogen Energy</td>
<td></td>
</tr>
<tr>
<td>EPM 4460</td>
<td>Land And Visual Resources</td>
<td></td>
</tr>
<tr>
<td>EPM 4464</td>
<td>Nuclear Power Plant Systems</td>
<td></td>
</tr>
<tr>
<td>EPM 4980</td>
<td>Internship</td>
<td></td>
</tr>
</tbody>
</table>

**Total Credits:** 24

**Minimum number of credits required:** 24

### Certificate in Environmental Policy and Management with a Concentration in Environmental Management

**Program Requirements**

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>EPM 4140</td>
<td>NEPA</td>
<td>4</td>
</tr>
<tr>
<td>EPM 4280</td>
<td>RCRA Permitting and Compliance</td>
<td>4</td>
</tr>
<tr>
<td>EPM 4355</td>
<td>ISO 14001 Standards</td>
<td>4</td>
</tr>
<tr>
<td>EPM 4500</td>
<td>Leadership for Environmental Managers</td>
<td>4</td>
</tr>
</tbody>
</table>

**Elective requirements (Choose two courses):**

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>EPM 4002</td>
<td>Integrated Environmental Systems</td>
<td></td>
</tr>
<tr>
<td>EPM 4390</td>
<td>Environmental Policy Analysis</td>
<td></td>
</tr>
<tr>
<td>EPM 4980</td>
<td>Internship</td>
<td></td>
</tr>
</tbody>
</table>

**Total Credits:** 24

**Minimum number of credits required:** 24
Certificate in Environmental Policy and Management with a Concentration in Environmental Policy

Program Requirements

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>EPM 4150</td>
<td>Global Environmental Law and Policy</td>
<td>4</td>
</tr>
<tr>
<td>EPM 4232</td>
<td>Sustainability: Policy and Practice</td>
<td>4</td>
</tr>
<tr>
<td>EPM 4390</td>
<td>Environmental Policy Analysis</td>
<td>4</td>
</tr>
<tr>
<td>EPM 4400</td>
<td>Environmental Values and Ethics</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>Elective requirements (Choose two courses):</td>
<td></td>
</tr>
<tr>
<td>EPM 4002</td>
<td>Integrated Environmental Systems</td>
<td></td>
</tr>
<tr>
<td>EPM 4108</td>
<td>Impacts of Recreational Use</td>
<td></td>
</tr>
<tr>
<td>EPM 4140</td>
<td>NEPA</td>
<td></td>
</tr>
<tr>
<td>EPM 4355</td>
<td>ISO 14001 Standards</td>
<td></td>
</tr>
<tr>
<td>EPM 4980</td>
<td>Internship</td>
<td></td>
</tr>
</tbody>
</table>

Total Credits 24

Minimum number of credits required: 24

Certificate in Environmental Policy and Management with a Concentration in Natural Resource Management

Program Requirements

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>EPM 4108</td>
<td>Impacts of Recreational Use</td>
<td>4</td>
</tr>
<tr>
<td>EPM 4120</td>
<td>Introduction to Natural Resource Management</td>
<td>4</td>
</tr>
<tr>
<td>EPM 4220</td>
<td>Endangered Species and Wildlife</td>
<td>4</td>
</tr>
<tr>
<td>EPM 4390</td>
<td>Environmental Policy Analysis</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>Elective requirements (Choose two courses):</td>
<td></td>
</tr>
<tr>
<td>EPM 4002</td>
<td>Integrated Environmental Systems</td>
<td></td>
</tr>
<tr>
<td>EPM 4140</td>
<td>NEPA</td>
<td></td>
</tr>
<tr>
<td>EPM 4236</td>
<td>Nuclear and Hydrogen Energy</td>
<td></td>
</tr>
<tr>
<td>EPM 4460</td>
<td>Land And Visual Resources</td>
<td></td>
</tr>
<tr>
<td>EPM 4980</td>
<td>Internship</td>
<td></td>
</tr>
</tbody>
</table>

Total Credits 24

Minimum number of credits required: 24

Courses

EPM 4001 Environmental Foundations and Principles (4 Credits)
Each major federal environmental law has a basis in protecting human health, as well as the environment. Although protection of the environment is claimed to be the purpose of the law, protection of the public’s health ultimately becomes its foremost effort. This course provides an overview of how government institutions address environmental health concerns, develop policy, apply the law, and implement environmental public health protections. In addition, how environmental health law is implemented by agencies; the responsibilities of local, state and federal agencies; the rights of the citizens subject to these rules; and the role of the courts throughout the process are explored.

EPM 4002 Integrated Environmental Systems (4 Credits)
The earth as a whole is comprised of many systems that affect the environment. Some have large wide ranging reach, while others are restricted to a relatively small area. Included is everything in between. Actions in one area or system may have unintended secondary and tertiary consequences in that system or others. This course uses various tools and materials to study a few environmental systems and determine connections, consequences, impacts, barriers, decision making, life cycle costs, etc.
EPM 4003 Environmental Finance and Economics (4 Credits)
This class provides an overview of economics and finance in an environmental context. Topics include an overview of the economic system, efficiency, equity, market failure, environmental regulation, benefit-cost analysis, valuing the environment, pollution control, energy, conservation of natural resources, performance metrics, risk and return, time value of money, cost of capital, returns on investments, and standard financial reports. The class makes use of reading assignments, written assignments, case studies, and class participation. The course emphasizes relationship between business management and environmental quality, and provides students with a financial and economic decision-making framework for understanding and analyzing environmental issues.

EPM 4040 Wetland Ecology and Management (4 Credits)
This course provides a detailed examination of aquatic communities and habitats with an emphasis on freshwater systems. The recognition, identification, classification, and maintenance requirements of various wetland communities are stressed. Students analyze Section 404 of the Clean Water Act and the permitting process. Guidelines for placing dredge and fill materials in wetlands and other construction projects that directly or indirectly affect these areas are reviewed. Students explore concepts related to regulatory enforcement, mitigation, and the need for additional policies and actions to sustain as well as protect these critical communities.

EPM 4108 Impacts of Recreational Use (4 Credits)
The practical and theoretical basis of recreational use of public and private lands is examined in the context of ecosystem management. The statutory and regulatory policies and current issues regarding the management and use of lands in wilderness systems, wild and scenic river corridors, parks, and open spaces are discussed in detail. The impacts of recreational uses on the environment and conflicts with other uses of land and resources are discussed. Land use planning policies and decisions which respond to recreation, wilderness and open space issues are examined. Field trips to Rocky Mountain National Park, Chatfield State Park, or other outdoor recreation sites will be scheduled to supplement classroom meetings.

EPM 4115 Introduction to Ecology (4 Credits)
This course examines the concepts of the ecosystem, populations, communities, the flows of energy, material cycles, and the necessity of diversity. Concepts including the unity of organisms and inseparable interactions with the physical environment are analyzed. Class discussions include topics such as the formation, distribution, and organization of ecological communities; plant succession and nutrient cycling; evolutionary trends of plant and animal populations; and species interactions in subalpine and alpine forests, prairies, and plains.

EPM 4120 Introduction to Natural Resource Management (4 Credits)
This course provides an introduction to natural resource management with an overview of historic and contemporary management systems and principles. Students examine key policies, guidelines, and planning procedures of governmental agencies, resource-based industry and the public. Topics include the simultaneous consideration of biological, physical, social, and economic aspects of lands, waters, and natural resources to achieve sustainable conditions. Other topics are multiple use/sustained yield management; soil and water conservation and protection; use, restoration, and preservation of renewable and non-renewable resources; and the preservation and management of natural resources for recreation, spiritual renewal, and other amenity values.

EPM 4140 NEPA (4 Credits)
Students examine the requirements and implementation strategies of the National Environmental Policy Act. The Council on Environmental Quality, National Environmental Policy Act Regulations and the rules and requirements of various federal agencies which are responsible for National Environmental Policy Act implementation are examined in detail. Specific applications of National Environmental Policy Act to private and public activities which constitute major federal actions significantly affecting the quality of the human environment are discussed. Representative Environmental Impact Statements and Environmental Assessments are presented and critiqued for regulatory compliance and thoroughness in disclosing environmental effects of proposed actions. Prerequisite: EPM 4200 (Environmental Protection Law).

EPM 4150 Global Environmental Law and Policy (4 Credits)
This course explores the legal and philosophical underpinnings of the environmental movement, both in the United States and internationally. Students will analyze global environmental issues including endangered species, overpopulation, resource depletion, biodiversity, ocean dumping, deforestation, desertification, global warming, and ozone depletion. Emphasis is placed on management options and the use of international laws and treaties to mitigate, lessen, or eliminate damage to various aspects of the environment.

EPM 4200 Environmental Protection Law (4 Credits)
This course reviews a wide spectrum of laws which protect our environment and health. Students will discuss the purpose, context and implications of the most important laws, regulations and court cases that affect the quality of our lives. Coverage includes: National Environmental Policy Act (NEPA), Clean Air Act (CAA), Clean Water Act (CWA), Resource Conservation and Recovery Act (RCRA), Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), Emergency Planning and Community Right-to-Know Act (EPCRA), Occupational Safety and Health Act (OSHA), and related toxics laws. It provides an overview of the legal system and the roles of Congress, the President, executive agencies, states, and courts in shaping environmental laws.

EPM 4220 Endangered Species and Wildlife (4 Credits)
This course provides an overview of the basic principles, trends, challenges, and controversies of the administration of maintaining certain wildlife species. Threats from water and air pollution, poaching and other illegal actions, interrelationships of wildlife and their habitats, and biodiversity will be discussed. Students gain an understanding of the roles and responsibilities of various federal, state and local agencies, environmental and wildlife interest groups, and other organizations involved in wildlife management issues.
EPM 4230 Energy Fundamentals (4 Credits)
This course provides a well-rounded primer on energy as a resource and its importance in the economy and the world today. Renewable energy and alternative fuels as well as nuclear and hydrogen-based technologies will be explored. This course also provides an in-depth view of issues surrounding the development, enforcement and application of energy regulatory policy.

EPM 4232 Sustainability: Policy and Practice (4 Credits)
In 1987 the Brundtland Commission, formerly the World Commission on Environment and Development, defined sustainability as “development that meets the needs of the present without compromising the ability of future generations to meet their own needs.” The wording suggests the concept of sustainability is difficult to define. Certainly it relates to some of the most challenging questions of our times: How do we encourage consumption patterns to ensure a continuing resource supply for future generations? How can an individual enterprise, whether it is a major corporation or a mom-and-pop business, practice sustainability? How do well-meaning executives, scientists, engineers and policymakers achieve a balance between environmental protection and economic development?

EPM 4233 Sustainable Transportation (4 Credits)
21st Century transportation planning on the local and global scale involves consideration of environmental policies and sustainable practices. Development of an efficient system for moving goods and people along highways, airways and public transit networks must coordinate with legal requirements governing automobile source emissions, water pollution, mitigation of congestion, and crisis management. Conflicts occur along political fault lines between public interest groups, environmental justice advocates, the business community, government regulators, and the ordinary commuter. Consideration is given to different fuel sources, including carbon-based, hydrogen, electricity, and biofuels. The course also examines fuel efficiency (CAFE) and trends in emission science and regulation.

EPM 4234 Climate Change and Science (4 Credits)
Global Warming* is a cause celebre, but how much do we really know about the science involved in studying the earth’s climate? Moving beyond the social and political opinions espoused in the current debate on climate change, this course delves into the chemical and physical forces at play in the arena. This course covers scientific processes used in measuring climate dynamics, among them ozone chemistry, carbon and oxygen cycles, and heat and water budgets. It explores scales and methods for detecting climate change, including analyzing ice cores, instrumental records, and time series. Some attention will be dedicated to “climate forcing” caused by such things as orbital variations, volcanism, plate tectonics, and solar variability.

EPM 4235 Green Building (4 Credits)
Builders, developers and designers increasingly are promoting the use of green construction practices in the pursuit of healthier, smarter buildings. Students in this course examine sustainable building strategies and tools, including LEED (Leadership in Energy and Environmental Design), the nationally-accepted benchmark for the design, construction and operation of high-performance green buildings. LEED promotes a whole-building approach by recognizing performance in five areas: sustainable site development water savings, energy efficiency, materials selection and indoor air quality. What materials are best in the design and operation of green building? How can a designer or building owner make better use of power and water efficiency programs? What are the recent developments, trends and case studies of green buildings and materials?

EPM 4236 Nuclear and Hydrogen Energy (4 Credits)
Two future- and high-tech oriented energy sources are explored in this course, nuclear power and hydrogen fuel. The course covers principles used in fission energy and in nuclear power engineering, including controlled chain reactions and reactor design criteria. It also attends to issues of radioactive waste treatment and storage and the mitigation of other radiation hazards. Currently, some 20% of the United States electric power comes from nuclear plants that use low-enriched uranium as fuel, burn nothing, and emit virtually no CO2. What is the future for this form of energy? In addition to nuclear power technology, the course focuses on fuel cells and the hydrogen economy, which brings its own questions concerning cost-benefit analysis and risks. Do these new economy, relatively “clean” energies present a way to avoid the downward trend of depleting natural resources, or do they send a siren song with the waste and safety problems they present?

EPM 4237 Renewable Energy (4 Credits)
Renewable energy sources now generate an estimated 13 percent of power worldwide. A political hot button, renewable energy sources range in their effectiveness, with some technologies already mature and economically viable, while still others need additional development or government subsidies to survive. The course begins with an overview of the major alternative sources, examining each one in-depth to consider its benefits, as well as its environmental and economic risks. We cover thermal systems and photovoltaics in the generation of solar power; atmospheric science and weather in the study of wind power; the organic chemistry that is involved in biomass, biofuels and agricultural residues; direct use of hot water in geothermal systems; and other alternative sources such as tidal and wave energy. Problems vexing grid placement and dissemination throughout a source network is also studied.

EPM 4238 Water and Food Sustainability (4 Credits)
For such basic human needs, water and food present their own highly-technical challenges inside legal, political and environmental spheres. This course delves into environmental, economic, and social implications in water usage and water resources regulation. This course also takes a broad look at food and farming systems at community, society, and ecosystem levels.

EPM 4280 RCRA Permitting and Compliance (4 Credits)
This course presents Resource Conservation and Recovery Act’s cradle-to-grave regulations governing solid and hazardous waste generation and disposal, the various permitting requirements, and the process by which permits are obtained. Design and performance requirements for treatment, storage, and disposal facilities are examined. Developing trends in waste minimization, solid waste management, and special waste controls are also examined.
EPM 4355 ISO 14001 Standards (4 Credits)
This advanced course introduces the new ISO 14001 standard for environmental management systems. It includes a history and developmental context review of the ISO 14001 standard. This class reviews the specific elements and processes that form certifiable 14001 environmental management systems. Using an example, students develop a complete program that integrates the 14001 requirements with the existing strategic management methods of an organization. This program demonstrates how to use the 14001 framework as a proactive and systematic approach to environmental management. Class discussions include developing an environmental policy, specifying objectives and targets, implementing an environmental management program, monitoring and measuring program results, and reviewing the program to ensure continual improvement.

EPM 4390 Environmental Policy Analysis (4 Credits)
This course provides a basic introduction to the field of public environmental policy analysis. Specifically, it serves as a foundation course that introduces contemporary methods of policy analysis, agenda-setting, models of policy formulation and implementation, and policy evaluation. The focus is principally on concepts, analytical approaches, and research methods.

EPM 4400 Environmental Values and Ethics (4 Credits)
Students examine ethical considerations in environmental management and decision making. Discussions cover personal versus organizational attitudes; cultural, economic, and historic values; science versus politics; and international and intergenerational policies. The course also explores various philosophies of humankind’s relationship with the environment. Students are encouraged to develop and express a personal philosophy relative to their role in the regulatory, technical, scientific, and financial management of the environment.

EPM 4460 Land And Visual Resources (4 Credits)
This course is designed to provide students from a broad range of disciplines with the skills to carry out applied research tasks and projects requiring the integration of geographic information system technologies and geospatial data. Students are introduced to a collection of techniques and data sources with a focus on acquiring and integrating data. Legal, ethical, and institutional problems related to data acquisition for geospatial information systems is also be discussed.

EPM 4461 Assessment of Social Impacts (4 Credits)
Students examine how the introduction of nuclear power systems or a nuclear waste treatment facilities affect the demographic and economic characteristics of a specific region. Basic analysis of archaeological resources, historic buildings and structures, and traditional cultural properties are also considered. Pertinent areas of environmental law provides guidelines and regulations with relation to the nuclear industry and current policy issues including the importance of the Energy Policy Act of 2005.

EPM 4462 Ecology, Soil, and Water (4 Credits)
A general overview of the potential effects of nuclear power facilities on ecosystems and ecological resources. These include terrestrial resources, wetlands, floodplains, aquatic resources, protected and sensitive species, geology, soil mechanics and seepage. In site-specific scales, the following items need to be considered, such as physical alteration of the landscape, disruption of natural processes, such as flooding and fires, and pollution.

EPM 4463 Air Quality, Noise and Transportation (4 Credits)
Air quality, noise and transportation issues can potentially be affected in the area surrounding a nuclear power plant in a variety of ways. Students become acquainted with the methodology of the dose rate estimations to the public and workers; the methods that are in place to monitor and reduce the risk to the public and workers from all hazards, and various pathways of exposure from possible nuclear contaminants and related pollution. Perceptions of citizens as stakeholders are considered. Identifying and profiling atmospheric toxic sources, developing and assessing emerging measurement methods, characterizing the degree and extent of local air toxicity problems, and tracking progress of air toxin reduction efforts. The impact of transportation on human and environmental risk assessment, including the primary methods and routes used to transport to a specific site, affected employees, commercial shipments, hazardous and radioactive material shipments, transportation packaging, transportation accidents, and onsite and offsite traffic volumes.

EPM 4464 Nuclear Power Plant Systems (4 Credits)
This course presents the basic components of nuclear power plant systems, their functional purpose, and operating conditions, including an overview of the equipments design and components from the safety point of view. An overview of nuclear power plants is presented in context of their impact on the environment and human health, including active and passive safety aspects.

EPM 4465 Environmental Restoration and Waste Management (4 Credits)
Environmental Restoration is the identification and elimination of hazardous materials from a designated site such that the risks to human health and the environment are reduced to an acceptable level for an intended future land use. This course examines successful environmental restoration activities that were used to reduce and mitigate risk associated with past operations of nuclear and nuclear-related facilities and the significant potential to release harmful contaminants. Environmental restoration effects on the ecological and human health risk assessments and analyses related to the transport, treatment, storage, and disposal of waste from the contaminated site are presented. Remediation processes for radioactive materials and other hazardous wastes and the eventual storage, processing, and disposal and the potential effect on humans and the environment is studied. An overview is given on the development of a radiological protection program for an EIS report. External and internal hazards: control measures and monitoring, and other important limits and measurements are explored.

EPM 4500 Leadership for Environmental Managers (4 Credits)
This course is an overview of basic leadership and management skills with an emphasis on topics germane to practicing environmental professionals. It addresses three main subject areas: performance metrics and standard financial reports (i.e., how organizations and businesses keep score); leadership (i.e., changes in behavior and work habits necessary for advancement from staff to management; and achieving clarity in organizational values and mission); and basic elements of internal and external communications. The class will make use of reading assignments, written assignments and class participation.
EPM 4510 Environmental Health & Safety (4 Credits)
The exponential growth in regulations and the increased demand to streamline resources present a unique opportunity for the environmental professional to integrate safety and health practices both horizontally and vertically within the organization. Students will evaluate the benefits and barriers to integrating environmental health and safety programs with applicable laws and regulations. Topics addressed in the class will include a brief review of EPA and OSHA standards as well as an introduction to industrial hygiene, workplace safety management, hazard evaluation and control, and the integration of environment, health, and safety. The course also reviews concepts essential for the understanding and implementation of environmental safety and health policies for use in the workplace.

EPM 4520 OSHA Law (4 Credits)
This course provides an in-depth review of the laws and regulations that govern the safety and health of workers. The course is of value to students seeking to expand knowledge of the Occupational Safety and Health Act. Emphasis is on the areas of overlap between safety and environmental laws, OSHA’s inspection and enforcement authority, employee and employer rights, record keeping requirements and an outline of labor’s interest in OSHA cases. Current topics such as OSHA reform legislation and regulatory agenda are discussed.

EPM 4525 Workplace Safety Management (4 Credits)
This course examines Occupational Safety and Health Administration rules governing workplace safety and other applicable industry standards, like those of the American National Standards Institute and National Fire Protection Association. Students learn how to develop and apply compliance programs, how to reduce losses of direct and indirect costs due to accidents, and how to convince management and employees that safety programs are beneficial. Important programs and topics include development of costs of accidents, investigation programs, practical application of worker’s compensation, confined space entry programs, injury/illness records and reporting, programs for new fall protective rules, personal protective equipment programs, and actions to develop financial and management support.

EPM 4610 Analytics I (4 Credits)
This course explores how companies can and do use data analytics in an era of sustainability and ever-increasing complexity to manage their businesses more effectively. The course has a managerial focus rather than a technical one. Students do not need a statistics or analytics background. It is designed to provide managers with sufficient background on the potential value of data analytics, the business process changes associated with data analytics, and the underlying technologies to enable them to interface effectively with analysts and data scientists. A key component of the course is developing a pilot project or business case for an analytics project of your choice.

EPM 4615 Analytics II (4 Credits)
Building on the course content of Environmental Analytics I, this course retains a managerial focus rather than a technical one. Students do not need a statistics or analytics background. It is designed to prepare managers to identify and obtain a publicly available data set (or one from their own organization), suitable to use for carrying out an analytics project, often the pilot project identified in the previous course. In addition, the course goes into the next level of detail on analytical algorithms and cloud technologies to enable students to frame the questions to be answered or insights revealed from running an analytics application. Finally, the course provides an introduction to cognitive computing and its applications, trends, and potential impacts.

EPM 4620 Environmental Reporting Standards and Models (4 Credits)
Students learn the reporting requirements of existing and emerging environmental reporting standards, e.g., SEC requirements, EU standards, NGO standards, Global Reporting Initiative environmental performance indicators, and Sustainability Accounting Standards Board recommendations, and how to craft mandatory and optional reports that conform to these standards and requirements.

EPM 4625 Environmental Analysis and Reporting Project (4 Credits)
Students will design and perform a project that applies the tools and insights of the data analytics revolution to perform sophisticated environmental analyses, and use the results of these analyses to craft mandatory and optional reports that meet existing and emerging environmental reporting standards, e.g., SEC requirements, EU standards, NGO standards, Global Reporting Initiative environmental performance indicators, and Sustainability Accounting Standards Board recommendations.

EPM 4701 Topics in EPM (2-5 Credits)
The content of this course will vary each time it is offered. The topics may include time-sensitive issues in the field of environmental policy and management, elective courses that are not scheduled regularly during the course of the year, or advanced inquiry into core-course subjects. Each time the course is offered, the specific content will be announced in the quarterly course schedule. Depending on the subject matter, students may be required to have completed prerequisite courses.

EPM 4705 Land Use Planning (4 Credits)
This course includes a comprehensive examination of the land use planning efforts of federal, state, and local governments. The legal authorities, responsibilities, and conflicts of these governmental entities are examined in detail. Class discussions include: setting goals and objectives for specific components of ecosystems; design of projects to achieve desired ecologic conditions; the interrelationship between home rule authority, local zoning and planning requirements, and federal/state natural resource plans; use of new technologies in planning; and public participation in land use plans.

EPM 4710 Environmental Project Management (4 Credits)
Students discuss environmental project management from the government, industry, and contractor perspectives. The course looks at successful project management organization, planning, and communication strategies. Using examples, students will also examine complex projects needing management. The types of contractual assistance needed will be reviewed.
EPM 4780 Air, Water and Soil Pollution (4 Credits)
This course addresses sources, reactions, and remediation of pollutants occurring in the atmosphere, waters, and soil. The deposition of pollutants from the atmosphere to soil and surface waters (acid rain) is covered. The migration of pollutants from surface waters through the soil to ground waters are also discussed.

EPM 4901 Capstone Project (4 Credits)
The Capstone Project provides students the opportunity to research a topic, problem, or issue within their field of study, and work individually with a Capstone advisor. Similar in weight to a thesis, but more flexible, this final project will synthesize and apply core concepts acquired from the program. The student will select an appropriate Capstone advisor who is knowledgeable in the field of study to work closely with and whom can guide the research project. Evaluation will be focused on the quality and professionalism of applied research and writing; critical and creative thinking; problem-solving skills; knowledge of research design, method, and implementation; and contribution to the field and topic of study. Please see the Capstone Guidelines for additional details. Prerequisites: A Capstone Proposal that has been approved by both the Capstone Advisor and the Academic Director, unconditional acceptance as a degree candidate, completion of at least 40 quarter-hours (including all core courses) with a cumulative GPA of 3.0 or better. A final grade of a B- or better is required to pass.

EPM 4902 Capstone Seminar (4 Credits)
The Capstone Seminar is a graduate seminar in which students utilize the knowledge and skills gained through the degree program to create a culminating work that critically addresses a problem in their degree field of study. The students produce a Capstone of 7000-8000 words that presents a position on a relevant problem, supports the position with professional and academic literature, analyzes and tests the proposed solution, and discusses the findings as related to the field of study. The seminar is dependent upon quality, collegial discussion, and feedback of students’ research and work products, under the facilitation of a faculty member. The course structure guides the students through the process of independent, secondary research and writing of a Capstone. No primary research is allowed. Students generate the course content through ongoing discussion and peer feedback on the Capstone process and individual topic areas under investigation. Students professionally and academically communicate through written work and oral presentation. Students must have: Unconditional acceptance as a degree candidate, completion of at least 40 quarter-hours (including all core courses) with a cumulative GPA of 3.0 or better. A final grade of B- or better is required in this course to meet degree requirements. Students must complete the Capstone Seminar in one quarter; no incomplete grades are assigned.

EPM 4904 Interdisciplinary Capstone Seminar (4 Credits)
The Interdisciplinary Capstone Seminar is a graduate seminar in which students utilize the knowledge and skills gained through the degree program to create a culminating work that critically addresses a problem or issue in the degree field of study. Members of the class will include students from various UCOL programs, representing multiple topics of study. On campus offerings of this course include required online components. The student produces a paper of 7000-8000 words that presents a position on a relevant problem or issue, supports the position with professional and academic work in the field, analyzes and tests the paper position, and discusses the role of the findings within the field of study. Students professionally and academically communicate their findings through written work and oral presentations. The seminar is dependent upon active and collegial discussion and critique of student research and work under the facilitation of a faculty member, and it is governed by the quality of participation and contributions of the students. Students must have: Unconditional acceptance as a degree candidate, completion of at least 40 quarter-hours (including all core courses) with a cumulative GPA of 3.0 or better. A final grade of B- or better is required in this course to meet degree requirements. Students must complete the Capstone Seminar in one quarter; no incomplete grades are assigned.

EPM 4910 Research Practices and Applications (4 Credits)
This course develops competency in principles of research and measurement for use in the professional setting. As an initial course in the program of study, students will learn research methods to apply to program and systems design and evaluation to achieve successful measurement of outcomes and goals. Students will become critical consumers of pertinent literature to provide background and support for the choice and application of proper qualitative and quantitative research methods and data analysis for professional application. Critical thinking through comparing and contrasting cause and effect is used to build logic models. Research, design, and evaluation processes that address issues of implementation, feasibility, and sustainability are emphasized. At the conclusion of this course students will be prepared to apply and clearly communicate the practice of scientific research principles in the professional environment to ensure that the question being asked can be answered through rigorous research and the design and formative assessment of the program or system. Completion of Institutional Review Board (IRB) training via CITI Program is required as a basis for discussion of research ethics and IRB procedures. Competencies gained in this course, including practices of inquiry, self-analysis, and evaluation, will be applied and integrated throughout the course of study and demonstrated in the culminating capstone work of the master’s degree. This course is required of all degree-seeking students and should be taken in the first three quarters of enrollment.

EPM 4980 Internship (1-4 Credits)
The EPM Internship is designed to offer students a purposeful experience in the field of environmental policy and management. The internship is an individualized learning experience and a training plan is created for each student in conjunction with the internship site to provide experiences related to the skills and knowledge covered in the certificate and master’s programs.

EPM 4991 Independent Study (1-8 Credits)
This is an advanced course for students wishing to pursue an independent course of study. The student must be accepted in a degree program, have earned a grade point average of 3.0 or better, obtained the approval of the department director, and have completed the Independent Study form and filed it with all appropriate offices before registering for the independent study. Independent Study is offered only on a for-credit basis.
EPM 4992 Directed Study (1-10 Credits)
This is an advanced course for students wishing to pursue a directed course of study. The student must be accepted in a degree program, have earned a grade point average of 3.0 or better, obtained the approval of the department director, and have completed the Independent Study form and filed the form with all appropriate offices before registering for the independent study. Directed Study is offered only on a for-credit basis.