Energy Environments, M.S.

Degree Offered

- Master of Science

Nature of the Program

The Davis College of Agriculture, Natural Resources & Design at West Virginia University will be launching a Master’s of Science in Energy Environments to complement two popular BS degrees in the College (Energy Land Management and Energy & Environmental Resource Management). The mission of the MS in Energy – Environments is to prepare students with the advanced coursework and practical work and research experience needed to succeed in professions that are rapidly developing at the intersection of energy and the environment. The program will meet this mission by offering students a mix of foundational coursework in science, ethics, project management, and natural resource economics with specialized coursework tailored to the students' interests, including tracks in water resources management, energy and environmental policy, and GIS and spatial analysis.

Admissions

Students admitted to the Davis College and the MS in Energy Environments degree program must:

- Possess a baccalaureate degree from a college or university and have at least a grade point average of 2.75 on a 4.0 scale (or an average of 3.0 or higher for the last sixty credit hours).
- Provide three letters of reference from persons acquainted with the applicant’s professional work, experience, or academic background.
- Submit a written statement of approximately 500 words indicating the applicant’s goals and objectives relative to receiving a graduate degree.

*International students have the additional requirement to submit a minimum score of 550 on the paper TOEFL examination or 213 on the electronic TOEFL examination if their native language is not English.

Major Code: 0750

Degree Requirements

Minimum GPA of 3.0 is required in major coursework.

Required Coursework

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<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>DSM 650</td>
<td>The Creative Economies</td>
<td>3</td>
</tr>
<tr>
<td>ENLM 500</td>
<td>Advanced Negotiations and Ethics for Energy Land Managers</td>
<td>3</td>
</tr>
<tr>
<td>ENVP 525</td>
<td>Principles of Water Resources</td>
<td>3</td>
</tr>
<tr>
<td>RESM 560</td>
<td>Advanced Energy Project and Program Management</td>
<td>3</td>
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</table>

Capstone Experience *

Select one of the following:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
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<tbody>
<tr>
<td>ANRD 491</td>
<td>Professional Field Experience</td>
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<tr>
<td>ANRD 595</td>
<td>Independent Study</td>
</tr>
<tr>
<td>ANRD 695</td>
<td>Independent Study</td>
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</tbody>
</table>

Elective Requirements (in consultation with Academic Advisory Committee) **

15

Total Hours

30

* Students that register for three credit hours of professional internship must complete at least 180 hours of paid or voluntary work in a supervised work setting related to their field of study. Students must also submit a synthesis paper to the graduate committee and defend their work in a public forum to complete the capstone requirement.

Students that register for three credit hours of research or independent study must complete a research project. Students must also submit a problem paper to the graduate committee and defend their work in a public forum to complete the capstone requirement. The research experience may lead to completion of a thesis, but a formal thesis is not required for this degree. Completion of a formal thesis would be expected to prolong the time it takes to complete the degree.

** Students will select additional restricted electives across a range of topics in consultation with the student’s Graduate Advisory Committee. Research, Seminar, Professional Field Experience, and Independent Study credits are limited to 12 total credits combined, and only three credits of each may be included on the graduate plan of study.

Learning Outcomes

Upon graduation, graduates of the MS in Energy Environments will:
• Possess in-depth, advanced knowledge in their discipline.
• Possess broad knowledge of related STEM disciplines.
• Understand and be able to articulate the relationships between energy extraction and use, environmental quality, and public policy within the broad context of sustainable development.
• Be able to develop technical solutions to energy and environmental problems that include the impact of law and public policy.
• Assess the economic realities of technical solutions, addressing such economic factors as market externalities, cost-benefit analysis, and the micro- and macroeconomic implications of the solutions produced.
• Exhibit professional communication skills and the ability to communicate effectively to technical audiences, the general public, the media, and policy makers.
• Adhere to codes of responsible conduct of research and behavior.