The MPS-RESS degree is conferred upon students who earn a minimum of 33 credits of course work at the 400, 500, or 800 level while maintaining an average grade-point average of 3.0 or better in all course work, including at least 18 credits at the 500 or 800 level (with at least 6 credits at the 500 level), and who complete a culminating experience (capstone course or scholarly paper) in consultation with a graduate adviser. The program curriculum includes:

- 12 credits of core courses,
- 18 credits of electives, and
- a 3-credit capstone course (EME 589) or scholarly paper (EME 596).

Substitutions for required courses, either with resident-education courses, alternate online courses, or courses from other institutions, will be considered on a case-by-case basis, and must be petitioned and approved by the Program Chair, with input from the student's adviser.

Admissions Process

Applications will be evaluated by the MPS-RESS Admissions Committee based on the applicants' technical qualifications for the program relative to their area of interest, their previous educational experience, and English Language proficiency. In general, successful applicants are expected to have earned a junior/senior grade-point average of at least 3.0 on a 4.0 scale. Applicants with a marginal record are encouraged to first complete a related Graduate Certificate before applying for admission to the MPS-RESS program. Exemplary performance in the graduate certificate will be taken into consideration for possible admission into the MPS-RESS program, but completion of a certificate does not imply or guarantee admission into a degree program.

Degree Requirements

Master of Professional Studies (M.P.S.)

Requirements listed here are in addition to Graduate Council policies listed under GCAC-700 Professional Degree Policies (https://gradschool.psu.edu/graduate-education-policies/).

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### Required Courses

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOET 533</td>
<td>Ethical Dimensions of Renewable Energy and Sustainability Systems</td>
<td>3</td>
</tr>
<tr>
<td>EME 504</td>
<td>Foundations in Sustainability Systems</td>
<td>3</td>
</tr>
<tr>
<td>EME 801</td>
<td>Energy Markets, Policy, and Regulation</td>
<td>3</td>
</tr>
<tr>
<td>EME 802</td>
<td>Renewable and Sustainable Energy Systems</td>
<td>3</td>
</tr>
</tbody>
</table>

### Additional Courses

Additional courses that will count as electives towards this degree can be chosen from a list of approved elective courses maintained by the graduate program office. This listing includes 2 program tracks that provide focused instruction in a given aspect of renewable energy and sustainability systems. Additional courses can fulfill an additional 18 credits.

### Culminating Experience

Choose one of the following:

- EME 589 Management and Design of Renewable Energy and Sustainability Systems (Capstone Course) 3
- EME 596 Individual Studies (Scholarly Paper) 3

### Total Credits

33

### Minor

A graduate minor is available in any approved graduate major or dual-title program. The default requirements for a graduate minor are stated in Graduate Council policies listed under GCAC-600 Research Degree Policies (https://gradschool.psu.edu/graduate-education-policies/) and GCAC-700 Professional Degree Policies (https://gradschool.psu.edu/graduate-education-policies/), depending on the type of degree the student is pursuing:

- GCAC-611 Minor - Research Doctorate (https://gradschool.psu.edu/graduate-education-policies/gcac/gcac-600/gcac-611-minor-research-doctorate/)
- GCAC-641 Minor - Research Master’s (https://gradschool.psu.edu/graduate-education-policies/gcac/gcac-600/gcac-641-minor-research-masters/)
- GCAC-709 Minor - Professional Doctorate (https://gradschool.psu.edu/graduate-education-policies/gcac/gcac-700/gcac-709-professional-doctoral-minor/)
- GCAC-741 Minor - Professional Master’s (https://gradschool.psu.edu/graduate-education-policies/gcac/gcac-700/gcac-741-masters-minor-professional/)

### Student Aid

World Campus students in graduate degree programs may be eligible for financial aid. Refer to the Tuition and Financial Aid section (https://www.worldcampus.psu.edu/tuition-and-financial-aid/) of the World Campus website for more information.

### Courses

Graduate courses carry numbers from 500 to 699 and 800 to 899. Advanced undergraduate courses numbered between 400 and 499 may be used to meet some graduate degree requirements when taken by graduate students. Courses below the 400 level may not. A graduate student may register for or audit these courses in order to make up deficiencies or to fill in gaps in previous education but not to meet requirements for an advanced degree.

### Learning Outcomes

1. Execute and evaluate sustainability or renewable energy systems using baseline, techno-economic, life cycle, or cost/benefit analyses.
2. Demonstrate fundamental understanding of the principles of energy science, including resource availability and conversion technologies.
3. Demonstrate an appreciation for the commercialization process relative to project and product development.
4. Demonstrate the ability to make sound decisions in complex situations.
5. Evaluate sustainability decisions in the broader context of society’s interests.

### Contact

**Campus** World Campus

**Graduate Program Head** Mort D Webster

**Director of Graduate Studies (DGS)** Erich William Schienke

**Program Contact** Noelle Fetzer Capparelle

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**Program Website** View (https://www.ress.psu.edu/)