# RENEWABLE ENERGY INTERDISCIPLINARY MINOR

Banner Code: RNRG

Undergraduate Physics Advisor

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Fairfax Campus

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This college-wide interdisciplinary minor is designed for students considering a career in the field of renewable energy, or as preparation for graduate work in a wide range of academic disciplines.

Renewable energy, as normally understood, includes a variety of methods of energy generation, such as solar, wind, hydro, tidal, and geothermal, as well as energy storage methods and energy conservation. Jobs related to renewable energy lie in a wide range of areas including engineering, business, marketing, finance, installation, software, legal affairs, and research. Projections suggest that employment opportunities in the renewable energy field will increase dramatically in the near future. The Renewable Energy Interdisciplinary Minor is therefore ideally suited for students with majors in engineering, business, policy, and science.

## Admissions & Policies

### Policies

Eight credits of coursework must be unique to the minor. For policies governing all minors, see AP.5.3.4 Minors.

## Requirements

### Minor Requirements

Total credits: 17-20

Students should refer to the Admissions & Policies tab for specific policies related to this program.

### Core Courses

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>PHYS 331</td>
<td>Fundamentals of Renewable Energy</td>
<td>3</td>
</tr>
<tr>
<td>PHYS 385</td>
<td>Materials Science with Applications to Renewable Energy</td>
<td>3</td>
</tr>
<tr>
<td>MATH 113</td>
<td>Analytic Geometry and Calculus I (Mason Core)</td>
<td>4</td>
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</tbody>
</table>

Total Credits: 10

### Physics

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td></td>
<td>Select one from the following:</td>
<td>1-3</td>
</tr>
<tr>
<td>PHYS 245</td>
<td>College Physics II (Mason Core)</td>
<td></td>
</tr>
<tr>
<td>PHYS 262</td>
<td>University Physics III (Mason Core)</td>
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### Other Science or Engineering Course

Select 3-4 credits from the following in consultation with minor advisor:

- PHYS 332: Solar Cells
- CHEM 212 & CHEM 214: General Chemistry II (Mason Core) and General Chemistry Laboratory II (Mason Core)
- GEOL 321: Geology of Energy Resources
- CHEM 271: General Chemistry for Engineers Lecture (Mason Core)
- CHEM 272: General Chemistry for Engineers Lab (Mason Core)
- ECE 301: Digital Electronics
- Other appropriate science or engineering course chosen in consultation with the minor advisor.

Total Credits: 3-4

### Internship

Select one from the following options:

- PHYS 409: Physics Internship

Total Credits: 3

1. Or a 3 credit internship in another natural science or engineering field. The course must be focused on renewable energy and chosen in consultation with the minor advisor.