

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

Code	Title	Credits
PHYS 331	Fundamentals of Renewable Energy	3
PHYS 385	Materials Science with Applications to Renewable Energy	3
MATH 113	Analytic Geometry and Calculus I (Mason Core)	4
Total Credits		10

Physics

Code	Title	Credits
Select one from the following: 1-3		
PHYS 245	College Physics II (Mason Core)	
PHYS 262	University Physics III (Mason Core)	

PHYS 266	Introduction to Thermodynamics	
Total Credits		1-3

Other Science or Engineering Course

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

Code	Title	Credits
Select one from the following options: 3		
PHYS 409	Physics Internship ¹	
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.