

Degree Requirements

The Bachelors of Science in Renewable Energy Engineering is a rigorous curriculum that requires 183 credit hours and approximately four years to complete. See the general education requirements for a bachelor's degree listed in the Academic Policies section of the catalog.

Bachelor of Science in Renewable Energy Engineering (2011-2012)

Curriculum

For OIT Portland students only. Required courses and recommended terms during which they should be taken for students transferring into the program with a bachelors of science in engineering, physics or chemistry; or a significant amount of transferable science and mathematics credits from a community college:

1st Summer Term						Su
ENGR 211	Statics					4
ENGR 267	Programming for Engineers.....					3
MATH 321	Differential Equations.....					4
Total						10
Junior Year Term		F	W	Sp	Su	
EE 221	Circuits I – DC and 1 st Order Transient Analysis.....	4				
EE 343	Solid-State Electronic Devices.....	3				
ENGR 355	Thermodynamics	3				
REE 201	Introduction to Renewable Energy.....	3				
EE 223	Circuits II – AC and 2 nd Order Transient Analysis.....	4				
MATH 361	Statistical Methods.....	4				
MECH 318	Fluid Mechanics	4				
	Renewable Energy Engineering Elective.....	3				
EE 225	Circuits III – Laplace Transforms and Applications.....	4				
CHE 260	Electrochemistry.....	4				
MECH 323	Heat Transfer.....	3				
REE 243	Electrical Power.....	4				
REE 339	Senior Project I.....	2				
REE 253	Electromechanical Energy Conversion.....					3
	Renewable Energy Engineering Elective.....					3
Total		13	15	17		6

Senior Year Term		F	W	Sp	Su
EE 321	Electronics I.....	5			
REE 463	Energy Systems Instrumentation and Control.....	3			
REE 33x	REE 331, 333 or 335.....	3			
REE 4xx	Senior Sequence Course I.....	3			
EE 456	Control System Design.....	4			
ENGR 407	Senior Project.....	2			
REE 412	Photovoltaic Systems.....	3			
REE 4xx	Senior Sequence Course II.....	3			
	Renewable Energy Engineering Elective.....	3			
EE 419	Power Electronics.....	4			
ENGR 407	Senior Project.....	2			
REE 4xx	Senior Sequence Course III.....	3			
	Renewable Energy Engineering Elective.....	3			
REE 413	Electric Power Conversion Systems.....				3
	Renewable Energy Engineering Elective.....				3
Total		14	15	12	6

Other courses that may need to be taken:

ECO 201N	Principles of Economics, Microeconomics.....	3
or		
ECO 202N	Principles of Economics, Macroeconomics.....	3
HIST 356	History of Energy.....	3
SPE 321	Small Group and Team Communication.....	3
WRI 327	Advanced Technical Writing.....	3

Renewable Energy Engineering Electives

REE 331	Fuel Cells*
REE 333	Batteries*
REE 335	Hydrogen*
REE 344	Nuclear Energy
REE 345	Wind Power
REE 346	Biofuels and Biomass
REE 347	Hydroelectric Power
REE 348	Solar Thermal Energy Systems
REE 439	Energy Systems Management & Auditing
REE 451	Geothermal, G-SHP
REE 453	Power Systems Analysis
REE 454	Power Systems Protection & Control
REE 455	Energy Efficient Building Design
REE 465	RE Transportation Systems
MECH 433	HVAC

Any upper-division EE, MECH or CE course, pending advisor approval

*May serve as an electrochemistry elective course