

Engineering Dual Degree Requirements

Energy Engineering & Environmental Studies

University Core Curriculum

Common Core Requirements			Credits
FYS	101	First Year Seminar	3
FYS	102	First Year Seminar	3
GHS	201-209	Global and Historical Studies	3
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General Core Requirements

General Core Requirements			Credits
TI	Text and Ideas		3
PCA	Perspectives in the Creative Arts		3
SW	<i>The Social World (exempt)</i>		3
AR	<i>Analytical Reasoning (exempt)</i>		3
NW	<i>The Natural World (exempt)</i>		5
PWB	Physical Well-Being		1
Core Credits			19(30)

Additional Core Requirements

BCR	Butler Cultural Requirement		8 events
ICR	Indianapolis Community Requirement		1 course
SAC	Speaking Across the Curriculum		1 course
WAC	Writing Across the Curriculum		1 course

Liberal Arts and Science Requirements

Liberal Arts and Science Requirements			Credits
Foreign Language (min 6 cr 200 level or above)			6-14
Spanish, French, German, Chinese, Latin			
Credits			25-33

Common Engineering

Mathematics			Credits
MA	106	Calculus & Analytical Geometry 1	4
MA	107	Calculus & Analytical Geometry 2	4
MA	208	Calculus & Analytical Geometry 3	4
MA	215	Linear Algebra	3
MA	334	Differential Equations	3

Science

Science			Credits
CH	105	General Chemistry 1	5
CH	106	General Chemistry 2	5
PH	201	Introduction to Analytical Physics 1	5
PH	202	Introduction to Analytical Physics 2	5

Engineering

Engineering			Credits
DD	190	Elementary Engineering Design	3
DD	297	MATLAB	1
CS	142	Intro to Computer Science & Prog	3

Other

Other			Credits
COM	101	Rhetoric and the American Demo	3
TCM	250	Career Planning for Engineers	1
TCM	360	Comm in Engineering Practice (WAC/SAC)	2
ENGR	200	Engineering Internship	1
Credits			52

Environmental Studies

ENV	200	Introduction to Environmental Studies	3
ST	200	Intro to Science & Technology Studies	3
ST	205	Science and Society Speaker Series	3
This is a 1 credit course to be taken 3 times.			
ENV	330	Geographic Information Systems	4
Select 1 of the following 3 courses:			
ST	310	Social Studies of Science and Technology	3
ST	320	Philosophy of Science	
ST	330	Language, Rhetoric and Science	
Practical Experience			3
Satisfied by ENV 400, an approved community-based internship, or another experiential learning course as approved.			
STS Electives (*credits used toward 15 cr req)			12
Of these credits 12 must be at the 300-400 level, 6 must be social science related, and 6 must be humanities related. Three hours of independent study/internship credit can be used. One research methods course is allowed.			
Natural Science Courses			5
BI	230	Ecology and Evolutionary Biology	
NW	207	Ecology and the Natural Environment	
CH	105	<i>General Chemistry 1</i>	-
CH	106	<i>General Chemistry 2</i>	-
Credits			36

Energy Engineering

Energy Engineering			Credits
ECON	201	Microeconomics ¹	3
PH	351	Analog Electronics (WAC)	4
MA	359	Probability and Statistics	3
ME	200	Thermodynamics	3
ME	272	Mechanics of Materials	3
ME	314	Heat & Mass Transfer	3
ME	482	Control Systems	3
ECE	321	Electromechanical Motion Devices	3
ECE	495	Fundamentals of Electrical Energy	3
EEN	220	Fund of Electrochem Mat & Energy Engr	3
EEN	225	Energy Engineering Lab I	1
EEN	240	Basic Engineering Mechanics	4
EEN	250	Energy Engineering Lab II	1
EEN	260	Sustainable Energy*	3
EEN	262	Engr Design, Ethics, & Entrepreneurship	2
EEN	310	Fluid Mechanics	3
EEN	325	Energy Engineering Lab III	1
EEN	330	Dynamic Sys Modeling & Measurements	3
EEN	345	Renewable Energy Systems	3
EEN	350	Energy Engineering Lab IV	1
EEN	425	Energy Engineering Lab V	1
EEN	445	Compressible Flow & Renewable KE	3
EEN	462	Capstone Design	3
EEN Electives			12
Tech Elective			2
Credits			74

¹ SW 220-EC used as equivalents for degree requirements