Engineering Dual Degree Requirements

Energy Engineering & Science, Technology and Society

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
GHS	201-209	Global and Historical Studies	3

General Core Requirements		Credits
TI	Text and Ideas	3
PCA	Perspectives in the Creative Arts	3
SW	*The Social World (exempt)*	*3*
AR	*Analytical Reasoning (exempt)*	*3*
NW	*The Natural World (exempt)*	*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	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			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			Credits
DD	190	Elementary Engineering Design	3
DD	297	MATLAB	1
CS	142	Intro to Comptuer Science & Prog	3

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

Science, Technology and Society			Credits
ST	200	Intro to Science & Technology Studies	3
ST	205	Science and Society Speaker Series	3
		This is a one credit course offered each term that must be completed three times before graduation.	
Select 2 from the following 3 courses:			6
ST	310	Social Studies of Science and Technology	
ST	320	Philosophy of Science	
ST	330	Language, Rhetoric and Science	
STS Electives (*credits used toward 18 cr req)			18
		Elective courses are from various departments. Of these credits, 12 must be at the 300 level or above. A total of three hours of independent study or internship credit can be used. Only one research methods course is allowed.	
Sci/Tech Elect (**credits used toward 15 cr req)			-
		Credits	30

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 1	1
EEN	240	Basic Engineering Mechanics	4
EEN	250	Energy Engineering Lab 2	1
EEN	260	Sustainable Energy	3
EEN	262	Engr Design, Ethics, & Entrepreneurship	2
EEN	310	Fluid Mechanics	3
EEN	325	Energy Engineering Lab 3	1
EEN	330	Dynamic Sys Modeling & Measurements	3
EEN	345	Renewable Energy Systems	3
EEN	350	Energy Engineering Lab 4	1
EEN	425	Energy Engineering Lab 5	1
EEN	445	Compressible Flow & Renewable KE	3
EEN	462	Capstone Design	3
EEN Electives			12
Tech Elective			2
		Credits	74

181 - 189 Total Credits

[1] SW 220-EC used as equivalents for degree reqirements