

Engineering Dual Degree Requirements

Mechanical Engineering & Environmental Studies

University Core Curriculum				Common Engineering			
Common Core Requirements				Mathematics			
FYS	101	First Year Seminar	Credits 3	MA	106	Calculus & Analytical Geometry 1	Credits 4
FYS	102	First Year Seminar	3	MA	107	Calculus & Analytical Geometry 2	4
GHS	201-209	Global and Historical Studies	3	MA	208	Calculus & Analytical Geometry 3	4
GHS	201-209	Global and Historical Studies	3	MA	215	Linear Algebra	3
				MA	334	Differential Equations	3
General Core Requirements				Science			
TI	Text and Ideas		Credits 3	CH	105	General Chemistry 1	Credits 5
PCA	Perspectives in the Creative Arts		3	CH	106	General Chemistry 2	5
SW	<i>The Social World (exempt)</i>		3	PH	201	Introduction to Analytical Physics 1	5
AR	<i>Analytical Reasoning (exempt)</i>		3	PH	202	Introduction to Analytical Physics 2	5
NW	<i>The Natural World (exempt)</i>		5				
PWB	Physical Well-Being		1	Engineering			
				DD	190	Elementary Engineering Design	Credits 3
		Core Credits	19(30)	DD	297	MATLAB	1
Additional Core Requirements				CS	142	Intro to Computer Science & Prog	3
BCR	Butler Cultural Requirement		8 events	Other			
ICR	Indianapolis Community Requirement		1 course	COM	101	Rhetoric and the American Demo	Credits 3
SAC	Speaking Across the Curriculum		1 course	TCM	250	Career Planning for Engineers	1
WAC	Writing Across the Curriculum		1 course	TCM	360	Comm in Engineering Practice (WAC/SAC)	2
Liberal Arts and Science Requirements				ENGR	200	Engineering Internship	1
							Credits 52
Foreign Language (min 6 cr 200 level or above)			Credits 6-14				
Spanish, French, German, Chinese, Latin							
			Credits 25-33				
Environmental Studies				Mechanical Engineering			
ENV	200	Introduction to Environmental Studies	Credits 3	ECON	201	Microeconomics ¹	3
ST	200	Intro to Science & Technology Studies	3	PH	351	Analog Electronics (WAC)	4
ST	205	Science and Society Speaker Series	3	MA	359	Probability and Statistics	3
		This is a 1 credit course to be taken 3 times.		ME	200	Thermodynamics	3
ENV	330	Geographic Information Systems	4	ME	225	Mechanical Engineering Lab 1	1
		Select 1 of the following 3 courses:	3	ME	250	Mechanical Engineering Lab 2	1
ST	310	Social Studies of Science and Technology		ME	262	Engr Design, Ethics, & Entrepreneurship	2
ST	320	Philosophy of Science		ME	270	Basic Mechanics 1	3
ST	330	Language, Rhetoric and Science		ME	272	Mechanics of Materials	3
		Practical Experience	3	ME	274	Basic Mechanics 2	3
		Satisfied by ENV 400, an approved community-based internship, or another experiential learning course as approved.		ME	310	Fluid Mechanics	3
STS Electives (*credits used toward 15 cr req)		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.	15	ME	314	Heat & Mass Transfer	3
				ME	325	Mechanical Engineering Lab 3	1
Natural Science Courses			5	ME	330	Modeling & Analysis of Dynamic Systems	3
BI	230	Ecology and Evolutionary Biology		ME	340	Dynamic Systems & Measurements	2
NW	207	Ecology and the Natural Environment		ME	344	Intro to Engineering Materials	3
CH	105	General Chemistry 1	-	ME	350	Mechanical Engineering Lab 4	1
CH	106	General Chemistry 2	-	ME	372	Design of Mechanics	3
				ME	425	Mechanical Engineering Lab 5	1
			Credits 39	ME	462	Capstone Design	3
				ME	482	Control Systems	3
181 - 189 Total Credits				ME	497	Design, Standards, & Contemp. Issues	1
						Design Elective	3
				ME	414	Thermal-Fluid Systems Design	
				ME	453	Machine Design	
						Tech Electives	9
							Credits 65

¹ SW 220-EC used as equivalents for degree requirements