

## Engineering Dual Degree Requirements

### Mechanical Engineering & Science, Technology and Society

<b>University Core Curriculum</b>				<b>Common Engineering</b>			
<b>Common Core Requirements</b>				<b>Mathematics</b>			
FYS	101	First Year Seminar	Credits	MA	106	Calculus & Analytical Geometry 1	Credits
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
<b>General Core Requirements</b>				<b>Science</b>			
TI		Text and Ideas	Credits	CH	105	General Chemistry 1**	Credits
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				
				<b>Engineering</b>			
			Core Credits	DD	190	Elementary Engineering Design	Credits
			19(30)	DD	297	MATLAB	3
<b>Additional Core Requirements</b>				CS	142	Intro to Computer Science & Prog	1
BCR		Butler Cultural Requirement	8 events				3
ICR		Indianapolis Community Requirement	1 course	<b>Other</b>			
SAC		Speaking Across the Curriculum	1 course	COM	101	Rhetoric and the American Demo	Credits
WAC		Writing Across the Curriculum	1 course	TCM	250	Career Planning for Engineers	3
				TCM	360	Comm in Engineering Practice (WAC/SAC)	1
<b>Liberal Arts and Science Requirements</b>				ENGR	200	Engineering Internship	2
			Credits				1
Foreign Language (min 6 cr 200 level or above)			6-14				Credits
		Spanish, French, German, Chinese, Latin					52
			Credits				
			25-33				
<b>Science, Technology and Society</b>				<b>Mechanical Engineering</b>			
ST	200	Intro to Science & Technology Studies	Credits	ECON	201	<i>Microeconomics</i> <sup>1</sup>	Credits
ST	205	Science and Society Speaker Series	3	PH	351	Analog Electronics (WAC)	3
		This is a one credit course offered each term that must be completed three times before graduation.	3	MA	359	Probability and Statistics	4
		Select 2 from the following 3 courses:	6	ME	200	Thermodynamics	3
ST	310	Social Studies of Science and Technology	6	ME	225	Mechanical Engineering Lab 1	3
ST	320	Philosophy of Science		ME	250	Mechanical Engineering Lab 2	1
ST	330	Language, Rhetoric and Science		ME	262	Engr Design, Ethics, & Entrepreneurship	1
STS Electives (*credits used toward 18 cr req)		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.	18	ME	270	Basic Mechanics 1	2
				ME	272	Basic Mechanics 2	3
Sci/Tech Elect (**credits used toward 15 cr req)			-	ME	274	Basic Mechanics 3	3
			Credits	ME	310	Fluid Mechanics	3
			30	ME	314	Heat & Mass Transfer	3
				ME	325	Mechanical Engineering Lab 3	1
				ME	330	Modeling & Analysis of Dynamic Systems	3
				ME	340	Dynamic Systems & Measurements	2
				ME	344	Intro to Engineering Materials	3
				ME	350	Mechanical Engineering Lab 4	3
				ME	372	Design of Mechanics	1
				ME	425	Mechanical Engineering Lab 5	3
				ME	462	Capstone Design	3
				ME	482	Control Systems	3
				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
<b>172 - 180 Total Credits</b>							

<sup>1</sup> SW 220-EC used as equivalents for degree requirements