## Mechanical Engineering Curriculum Mapping Student Learning Outcomes in Courses Mapped to Program Student Outcomes

Semester	Course	1	2	3	4	5	6	7
Freshman Fall	Math 150	X						
	Chem 202	X				X		
	ME 190	X	X	X	X			
	GE, Written Communication		X	X	X			
	GE, Life Science		X					
Freshman Spring	Math 151	X						
	Phys 195	X						
	Phys 195L	X		X			X	
	GE, Critical Thinking		X	X	X			
	GE, Arts & Humanities		X					
	GE, Social & Behavioral Sciences		X	X	X			
Sophomore Fall	Math 252	X						X
	Phys 196	Х						
	Phys 196L	X		X			X	X
	ME 200	X					X	
	ME 202	X		X				
	ME 240	X	X	X	X			
	GE, Arts & Humanities		X	X				
Sophomore Spring	AE 280	Х						
	EE 204	Х					X	
	Phys 197	X						
	ME 220	X						
	ME 241		X	X		X	X	
	GE, Arts & Humanities		X	X				
	GE, Social & Behavioral Sciences/Ameri can Institutions		X	X	X			

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Junior Fall	ME 360	X	X				X	X	
	AE 341	X		X		X	X	X	
	ME 304	X		X					
	ME 310	X	X	X	X	X	X	X	
	ME 350	X		X			X		
	GE, Lifelong Learning & Self- Development				X			X	
	GE, Social & Behavioral Sciences		X		x				
Junior Spring	ME 314	X		X	X		X	X	
	ME 330	X		X		X	X	X	
	ME 351	X							
	ME 452	X							
	GE Explorations/ Cultural		X		X				
Senior Fall	Diversity ME 490A	X	X	X	X	X	X	X	
	ME 495	X		X		X	X		
	GE Explorations/ Ethnic Studies		X		X				
	Prof. Elec.	See List of Professional Electives Below							
	Prof. Elec.	See List of Professional Electives Below							
Senior Spring	ME 490B		X	X	X	X	X	X	
	ME 520	X						X	
	ME 555	X	X	X	X				
	GE Explorations		X	X	X				
	Prof. Elec.	See List of Professional Electives Below							
Professional Electives	AE 515	X							
	ME 420	X						X	
	ME 430	X						X	
	ME 499	X						X	
	ME 530	X						X	

## Mechanical Engineering Curriculum Mapping Student Learning Outcomes in Courses Mapped to Program Student Outcomes

	ME 532	X				X
	ME 535	X				X
	ME 540	X				X
	ME 543	X				X
	ME 552	X				X
	ME 554	X				X
	ME 556	X				X
	ME 580	X				X
	ME 585	X			X	X

## **Mechanical Engineering Program Student Outcomes**

- 1. An ability to identify, formulate, and solve complex engineering problems by applying principles of engineering, science, and mathematics.
- 2. An ability to apply engineering design to produce solutions that meet specified needs with consideration of public health, safety, and welfare, as well as global, cultural, social, environmental, and economic factors.
- 3. An ability to communicate effectively with a range of audiences.
- 4. An ability to recognize ethical and professional responsibilities in engineering situations and make informed judgments, which must consider the impact of engineering solutions in global, economic, environmental, and societal contexts.
- 5. An ability to function effectively on a team whose members together provide leadership, create a collaborative and inclusive environment, establish goals, plan tasks, and meet objectives.
- 6. An ability to develop and conduct appropriate experimentation, analyze and interpret data, and use engineering judgment to draw conclusions
- 7. An ability to acquire and apply new knowledge as needed, using appropriate learning strategies.