

**Table 5-1 Curriculum (Total: 125 Credits)**

**Name of Program**

**Table 5-1. Mechanical Engineering Curriculum Overview and Recommended Schedule in Year and Semester.**

Semester	Course (Department, Number, Title) List all courses in the program by term starting with the first term of the first year and ending with the last term of the final year.	Indicate Whether Course is Required, Elective or a Selected Elective by an R, an E or an SE.	Subject Area (Credit Hours)				Terms the Course was Offered during 2014-2015
			Math & Basic Sciences	Engineering Topics Check if Contains Significant Design (✓)	General Education	Other	
<b>Freshman</b>	ENG 100 Composition I	SE			3		F14/S15
Fall (1 <sup>st</sup> Semester)	MATH 241 Calculus I	R	4	( )			F14/S15
	CHEM 161, 161L General Chemistry I and Lab	R	3, 1	( )			F14/S15
	Global and Multicultural Perspectives Requirement, FG (e.g., HIST 152 World Civilization II)	SE			3		F14/S15
<b>Freshman</b>	MATH 190 Introduction to Programming (Secs 1, 2) (or EE 160 Programming for Engineers)	R		2 ( ) ( )			F14/S15 <sup>1</sup> F14/S15 <sup>2</sup>
Spring (2 <sup>nd</sup> Semester)	MATH 242 Calculus II	R	4	( )			F14/S15
	PHYS 170, 170L General Physics I and Lab	R	4, 1	( )			F14/S15
	CHEM 162 General Chemistry II	R	3	( )			F14/S15
	COMG 251 Principles of Effective Public Speaking	SE		( )	3		F14/S15
<b>Sophomore</b>	EE 211 Basic Circuit Analysis I	R		4 ( )			F14/S15
Fall (1 <sup>st</sup> Semester)	ME 213 Introduction to Digital Design (Sections 1, 2)	R		3 (✓)			F14/S15 <sup>3</sup>
	MATH 243 Calculus III	R	3	( )			F14/S15
	PHYS 272, 272L General Physics II and Lab	R	3, 1	( )			F14/S15
	CEE 270 Applied Mechanics I	R		3 ( )			F14/S15

<sup>1</sup> This course will no longer be offered from Fall 2015 and can be replaced by EE 160 (or ICS 111: 4-credit).

<sup>2</sup> This is a replacement for MATH 190.

<sup>3</sup> ME 213 is Writing intensive (W).

<b>Sophomore</b>	ME 271 Applied Mechanics II	R		3 ( )		F14/S15
Spring (2 <sup>nd</sup> Semester)	MATH 244 Calculus IV	R	3	( )		F14/S15
	MATH 302: Intro to DEs (Secs 1, 2) /MATH 307: Linear Algebra & DEs)	R	3/3	( )		F14/S15 F14/S15
	Economics Elective, e.g., ECON 130 Principles of Microeconomics, etc. (DS)	SE		( )	3	F14/S15
	Global and Multicultural Perspectives Requirement, FG (e.g., HIST 152 World Civilization II)	SE			3	F14/S15
<b>Junior</b>	ME 311 Thermodynamics	R		4 ( )		F14/S15
Fall (1 <sup>st</sup> Semester)	ME 360 Computer Methods in Engineering	R		3 ( )		F14/S15
	ME 331 Materials Science and Engineering	R		3 ( )		F14/S15
	ME 371 Mechanics of Solids (or CEE 370)	R		3 ( )		F14/S15
	ME 375 Dynamics of Machines and Systems	R		3 ( )		F14/S15
<b>Junior</b>	ME 312 Applied Thermodynamics	R		3 ( ✓ )		S14/S15
Spring (2 <sup>nd</sup> Semester)	ME 322 Mechanics of Fluids	R		3 ( )		F14/S15
	ME 341 Manufacturing Processes	R		3 ( )		F14/S15
	ME 342 Manufacturing Processes Lab (Sections 1, 2)	R		2 ( )		F14/S15 <sup>4</sup>
	ME 372 Component Design	R		3 ( ✓ )		S14/S15
	ME 374 Kinematics/Dynamics Machinery	R		3 ( )		S14/S15
<b>Senior</b>	ME 422 Heat Transfer	R		3 ( )		F14/S15
Fall (1 <sup>st</sup> Semester)	ME 480 Thermofluid Measurements and Design Lab (Sections 1, 2)	R		3 ( ✓ )		F14/S15 <sup>5</sup>
	ME 481 Design Project I (Sections 1, 2)	R		3 ( ✓ )		F14 <sup>6</sup>
	ME Technical Elective (e.g, ME 417: Applied Thermal Engineering; ME 436: Corrosion Engineering)	E		3 ( )		F14
	ME Technical Elective (e.g., ME 451: Feedback- Control Systems)	E		3 ( )		F14
<b>Senior</b>	ME 402 Dynamics Systems Laboratory (Sections 1, 2)	R		2 ( ✓ )		F14/S15 <sup>7</sup>

<sup>4</sup> ME 342 is Writing intensive (W).

<sup>5</sup> ME 480 is Writing intensive (W) and Ethics (E).

<sup>6</sup> ME 481 is Writing intensive (W).

<sup>7</sup> ME 402 is Writing intensive (W).

Spring (2 <sup>nd</sup> Semester)	ME 482 Design Project II (Sections 1, 2)	R		3 ( ✓ )			S15 <sup>8</sup>	
	ME Technical Elective (e.g., ME 419: Astronautics; ME 434: Materials Selection for Design; ME 452: Robotics; ME 491; ME 492-1, ME 492-2)	E		3 ( )			S15	
	Humanities (DH) or Literature (DL) requirement	SE		( )	3		F14/S15	
	Social Science (DS)	SE			3		F14/S15	
TOTALS-ABET BASIC-LEVEL REQUIREMENTS			33 hrs	71 hrs	21 hrs	0 hrs		
OVERALL TOTAL CREDIT HOURS FOR COMPLETION OF THE PROGRAM			125					
PERCENT OF TOTAL			26%	57%	17%	0%		
	Total must satisfy either credit hours or percentage	Minimum Semester Credit Hours	32 hrs	48 hrs				
		Minimum Percentage	25%	37.5 %				

<sup>8</sup> ME 482 is Oral communication (O).

