

## 3.4.5 Sample Plan of Study

### Sample Plan of Study Mechanical Engineering (ME) Freshmen Year

Semester 1			Semester 2				
Course	Title	Cr.	Pre/ConP	Course	Title	Cr.	Pre/ConP
MA 165	Analytic Geometry and Calculus I (Math)	4	Pre: MAT 110 or MA 158 or passing ENG Math Placement Test	MA 166	Analytic Geometry and Calculus II (Math)	4	Pre: MA 165
CHM 115	General Chemistry I (Science)	4	ConP: MA 165	ENGL 106	First-Year Composition (English Lan. & Com.)	4	ENGL 100
ENGL 100	English for Academic Studies (English Lan. & Com.)	3		ENGR 132	Transforming Ideas to Innovation II (General Eng.)	2	Pre: ENGR 131 (Min. Grade C-)
ENGR 131	Transforming Ideas to Innovation I (General Eng.)	2		SS	Science Selective* (Science; for example: CHM 112)	3	
GEE	General Education Elective (refer to course catalogue)	3		PHYS 172	Modern Mechanics (Science)	4	ConP: MA 165 (min. grade C-)
<b>Semester Credits = 16</b>				<b>Semester Credits = 17</b>			

### Sophomore Year

Semester 3			Semester 4				
Course	Title	Cr.	Pre/ConP	Course	Title	Cr.	Pre/ConP
ME 200	Thermodynamics I (Thermal/Fluid Sciences)	3	Pre: CHM 115 (C-), ConP: MA 261, ENGR 132 (min. grade C-)	ME 263	Intr. to ME Design, Innov. & Entrepreneurship, with Lab (Design)	3	Pre: ME 200, ME 270, COM 114, ENGL 106, ENGR 132 ConP: MA 262, ME 290, CGT 163
ME 270	Basic Mechanics I (Mechanical Science)	3	Pre: PHYS 172 (min. grade C-), MA 166 (C-); ConP: MA 261, ENGR 132 (min. grade C-)	ME 274	Basic Mechanics II (Mechanical Science)	3	Pre: ME 270, ENGR 132 (C-) ConP: MA 262
CGT 163	Graphical Communication And Spatial Analysis (General Eng.)	2		MA 262	Linear Algebra And Differential Equations (Math)	4	Pre: MA 261
MA 261	Multivariate Calculus (Math)	4	Pre: MA 166	EE 201	Linear Circuit Analysis I (Syst. Meas. and Control)	3	Pre: ENGR 131, MA 166 (min grade C-), PHYS 172 (min. grade C-) ConP: MA 261
PHYS 241	Electricity and Optics (Science)	3	Pre: PHYS 172 (min. grade C-), ConP: MA 166 (min. grade C-)	EE 207	Electronic Measurement Techniques Lab (Syst. Meas. & Control)	1	ConP: EE 201
COM 114	Fund. of Speech Communication (English Lan. & Com.)	3	ENGL 100	ME 290	Global Engineering Professional Seminar (ME Seminars)	1	Pre: COM 114, ENGL 106
				GEE	General Education Elective (refer to course catalogue)	3	
<b>Semester Credits = 18</b>				<b>Semester Credits = 18</b>			

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**Junior Year**

Semester 5				Semester 6			
Course	Title	Cr.	Pre/ConP	Course	Title	Cr.	Pre/ConP
ME 309	Fluid Mechanics, with Lab (Thermal/Fluid Sciences)	4	Pre: ME 263, ME 274, MA 262	ME 352	Machine Design I, with Lab (Design)	4	Pre: ME 263, ME 274 and ME 323
ME 365	Systems And Measurements, with Lab (Syst. Meas. and Control)	3	Pre: EE 201, ME 274, MA 262, EE 207	ME 375	System Modeling And Analysis (Syst. Meas. and Control)	3	Pre: ME 365, MA 303
ME 323	Mechanics Of Materials (Mechanical Science)	3	Pre: ME 270	MSE 230	Structure and Properties of Materials (Mechanical Science)	3	Pre: CHM 115 (min. grade C-), MA 165 (min grade C-)
MA 303	Diff. Equations & Partial Diff. Equations for Engr. &Sci. (Math)	3	Pre: MA 262 OR (MA 265 and MA 266)	RE1	Restricted Elective (for example ME 300; refer to Degree Requirement)	3	
GEE	General Education Elective (refer to course catalogue)	3		GEE	General Education Elective (refer to course catalogue)	3	
<b>Semester Credits = 16</b>				<b>Semester Credits = 16</b>			

**Senior Year**

Semester 7				Semester 8			
Course	Title	Cr.	Pre/ConP	Course	Title	Cr.	Pre/ConP
PE1	Mechanical Engineering Professional Elective (refer to course catalogue)	3		PE3	Professional Elective (refer to course catalogue)	3	
ME 315	Heat And Mass Transfer, with Lab (Thermal/Fluid Sciences)	4	Pre: ME 309, ME 365, MA 303	ME 463	Engineering Design, with Lab (Design, Capstone Course)	3	Pre: ME 315, ME 352, ME 375, MSE 230
FE	Restricted Elective (for example: Free Elective* (any non-remedial course. for example: CS 159)	3		RE2	Restricted Elective (for example: ME 452; refer to Degree Requirement)	3	
PE2	Professional Elective (refer to course catalogue)	3		PE4	Professional Elective (refer to course catalogue)	3	
GEE	General Education Elective (refer to course catalogue)	3		GEE	General Education Elective (refer to course catalogue)	3	
<b>Semester Credits = 16</b>				<b>Semester Credits = 16</b>			

**Total Minimum Credits Required for Graduation = 132**

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