



CCP Pathway for a Major in Mechanical Engineering

Academic Plan

Year	Course Number	Fall of Junior Year of High School	Credit Hours	Units
1	Gen Ed	<i>Integrative Core - Foundation (H,A, or S)</i>	4	1
	EGE 110	Intro to Engineering Profession	2	0.5
	CHE 120N	Concepts in Chemistry	4	1
				2.5
Total			10	

Course Number	Spring of Junior Year of High School	Credit Hours	Units
XXX	Foreign Language (if needed) or Elective	4	1
MTH 141	Calculus I	4	1
EGE 130	Computer-Aided Design	2	0.5
			2.5
Total		10	

Year	Course Number	Fall of Senior Year of High School	Credit Hours	Units
2	MTH 142	Calculus II	4	1
	PHY 101N	Physics I	4	1
				2
Total			8	

Course Number	Spring of Senior Year of High School	Credit Hours	Units
Gen Ed	<i>Integrative Core - Foundation (H,A, or S)</i>	4	1
EGE 120	Intro to Engineering Design	2	0.5
XXX	Foreign Language (if needed) or Elective	4	1
			2.5
Total		10	

Year	Course Number	Fall-Full-Time UMU Student	Credit Hours	Earned
1	FYS 100	<i>Integrative Core - First-Year Seminar</i>	4	
	PHY 102	Physics II	4	
	MTH 241	Calculus III	4	
	EGE 210	Statics & Dynamics	4	
Total			16	

Course Number	Spring-Full-Time UMU Student	Credit Hours	Earned
	<i>Integrative Core - Foundation (H,A, or S)</i>	4	
MTH 333	Linear Algebra and Differential Equations	4	
EGE 220	Thermodynamics & Fluid Mechanics I	4	
EME 230	Material Science	2	
EGE 240	Mechanics of Materials	4	
Total		18	

Year	Course Number	Fall-Full-Time UMU Student	Credit Hours	Earned
2	PHY 230V	<i>Electronics - IC Explorations Values & Reasoning</i>	4	
	EME 310	Kinematics and Dynamics of Machinery	4	
	EME 320	Thermodynamics & Fluid Mechanics II	4	
	MGT 495	Project Management	2	
	EME 350	Manufacturing Science	2	
Total			16	

Course Number	Spring-Full-Time UMU Student	Credit Hours	Earned
EGE 320G	<i>Global Engineering - IC Explorations Div. & Glob Learning</i>	4	
EGE 310	Product Design and Development	4	
EME 330	Design of Machine Elements	4	
MTH 306	Prob. & Statistics for Engineers and Scientists	4	
Total		16	

Year	Course Number	Fall-Full-Time UMU Student	Credit Hours	Earned
3	EME 480	Mechanical Engineering Capstone I	2	
	EME 410	Control of Dynamic Systems	4	
	EME 420	Mechanical Vibrations	4	
	EME 430	Heat Transfer	4	
Total			14	

Course Number	Spring-Full-Time UMU Student	Credit Hours	Earned
EME 490	Mechanical Engineering Capstone II	4	
EME 4XY	Mechanical Engineering Technical Elective	2	
	Free Elective	2	
CAP 400	<i>IC Capstone</i>	4	
Total		12	
Total Credit Hours		130	

Required Departmental Courses

Courses listed in *italics* are required for the Integrative Core program.