



## Mechanical Engineering Program Course Outline

First Year					
Fall Semester			Spring Semester		
Course	Catalog Identification	Credits	Course	Catalog Identification	Credits
Calculus 1	MATH 211	4.0	Calculus 2	MATH 212	4.0
General Chemistry 1	CHEM 170	4.0	Engineering Fundamentals	FENG 102	3.0
Introduction to Engineering	FENG 101	1.0	Rhetorical Composition	COMP 111	3.0
Intro to College & Service	MLGN 100	0.5	New Testament Survey	BIBL 124	3.0
Old Testament Survey	BIBL 123	3.0	Renaissance & Early Mod Cul	HUMN 102	4.0
Ancient & Medieval Cultures	HUMN 101	4.0			
<b>Semester Credits</b>		<b>16.5</b>	<b>Semester Credits</b>		<b>17.0</b>
Second Year					
Fall Semester			Spring Semester		
General Physics 1	PHYS 203	4.0	General Physics 2	PHYS 204	4.0
Multivariable Calculus	MATH 303	4.0	Linear Algebra	MATH 307	3.0
Statics	MENG 201	3.0	Differential Equations	MATH 309	3.0
Applied Electrical Theory 1	EENG 201	3.0	Dynamics	MENG 202	3.0
Inquiring Minds	COMP 211	3.0	Mechanics of Materials	MENG 211	3.0
			Intro to Calling & Career	MLGN 200	0.5
<b>Semester Credits</b>		<b>17.0</b>	<b>Semester Credits</b>		<b>16.5</b>
Third Year					
Fall Semester			Spring Semester		
Applied Math & Prog for Eng	FENG 301	3.0	Materials and Design	MENG 311	3.0
Machine Design	MENG 331	3.0	Systems and Controls	MENG 421 & EENG 461	3.0
Fluid Mechanics	MENG 361	3.0	Heat Transfer	MENG 351	3.0
Thermodynamics 1	MENG 371	3.0	Thermodynamics 2	MENG 372	3.0
18 <sup>th</sup> & 19 <sup>th</sup> Centuries Cultures	HUMN 201	4.0	Fitness for Life	EXSC 101	1.0
			Cultures of the 20 <sup>th</sup> /21 <sup>st</sup> Cent	HUMN 202	4.0
<b>Semester Credits</b>		<b>16.0</b>	<b>Semester Credits</b>		<b>17.0</b>
Fourth Year					
Fall Semester			Spring Semester		
Vibrations and Dynamic Systems	MENG 431	3.0	Manufacturing Processes	MENG 411	3.0
Applied Thermal-Fluid Sciences	MENG 471	4.0	Applied Machine Design	MENG 432	4.0
Mechanical Design Project 1	MENG 481	3.0	Mechanical Design Project 2	MENG 482	3.0
Speech Communication	COMM 102	3.0	Christ and Culture	BIBL 471	3.0
Ethnic Studies	GER	3.0	Social Learning	GER	3.0
<b>Semester Credits</b>		<b>16.0</b>	<b>Semester Credits</b>		<b>16.0</b>
<b>Total Credits All Semesters</b>		<b>132.0</b>	<b>Laptop Requirements</b>		
<b>Total Credits Engineering</b>		<b>60.0</b>	Computer Type	PC (not Mac or Apple)	
<b>Total Credits Math</b>		<b>18.0</b>	Operating System	Windows 10 or higher	
<b>Total Credits Physics</b>		<b>8.0</b>	Memory	8 GB RAM (more is faster)	
<b>Total Credits Chemistry</b>		<b>4.0</b>	Storage	250 GB (SSD is better than HDD)	
<b>Total Credits General Education</b>		<b>42.0</b>	MS Office is free of charge provided through Milligan University		