



MILLIGAN ENGINEERING



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			
Semester Credits		16.5	Semester Credits		17.0
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 Elect 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
Semester Credits		17.0	Semester Credits		16.5
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 th & 19 th Centuries Cultures	HUMN 201	4.0	Fitness for Life	EXSC 101	1.0
			Cultures of the 20 th /21 st Cent	HUMN 202	4.0
Semester Credits		16.0	Semester Credits		17.0
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
Social Learning	GER	3.0	Ethnic Studies	GER	3.0
Semester Credits		16.0	Semester Credits		16.0
Total Credits All Semesters		132.0	Laptop Requirements	Recommended	
Total Credits Engineering		60.0	CPU	Intel Core i5 or i7	
Total Credits Math		18.0	Memory	8 GB RAM (more is faster)	
Total Credits Physics		8.0	Hard Drive	500 GB (more is better)	
Total Credits Chemistry		4.0	Operating System	Windows 8 or higher	
Total Credits General Education		42.0	MS Office is free of charge provided through Milligan College		