MECHANICAL ENGINEERING MAJOR, B.S.

Course	Title	Credits
General Requirements		
General Education (https://catalog.uwplatt.edu/undergraduate/degree-requirements/bachelor-of-science-degree-core-curriculum/)		26
Required Courses [1]		
MATH 2640	Calculus and Analytic Geometry I	4
MATH 2740	Calculus and Analytic Geometry II	4
MATH 2840	Calculus and Analytic Geometry III	4
MATH 3630	Differential Equations I	3
MATH 4030	Statistical Methods with Applications	3
CHEMSTRY 1450	Chemistry for Engineers	5
PHYSICS 2240	General Physics I	4
PHYSICS 2340	General Physics II	4
GENENG 1030	Introduction to Engineering Projects	1
GENENG 2030	Engineering Modeling and Design	3
GENENG 2820	Engineering Economy	2
GENENG 2130	Engineering Mechanics-Statics	3
GENENG 2230	Engineering Mechanics-Dynamics	3
GENENG 2340	Mechanics of Materials	4
Choose one of the following:		3-7
GENENG 2930	Applications of Electrical Engineering	
ELECTENG 1210 & ELECTENG 2210	Circuit Modeling I and Circuit Modeling II	
Professional Engineering Courses [1,2]		
MECHENG 2630	Thermodynamics	3
MECHENG 3030	Mechanical Vibrations	3
MECHENG 3040	Engineering Materials	3
MECHENG 3230	Manufacturing Processes	3
MECHENG 3300	Fluid Dynamics	3
MECHENG 3330	Design of Machine Elements	3
MECHENG 3430	Introduction to Computational Methods	3
MECHENG 3640	Heat Transfer	3
MECHENG 3720	Measurements and Instrumentation Laboratory	3
or BME 3230	Introduction to Medical Instrumentation	
MECHENG 3830	Mechanisms and Machines	3
MECHENG 4330	Automatic Controls	3
MECHENG 4720	Thermal Systems Laboratory	2
MECHENG 4730	Thermo-Fluid Systems Design	3
MECHENG 4930	Senior Design Project (o)	3
or GENENG 4930	Interdisciplinary Senior Design	
Technical Electives [1]		
Select 6 credits of the following:		6
CIVILENG 6230	Structural Steel Design with LRFD [3]	
ENERGY 4330	Wind and Solar Systems Design	
ENGRG 5030	Linear Algebra [3]	
ENGRG 6050	Applied Statistics [3]	
ENGRPHYS 4530	Design, Fabrication, and Simulation of MEMS	
BME 4130	Biomechanics	
BME 4330	Biofluidics	
BME 4530	Biomaterials	
INDSTENG 3730	Engineering Management	

INDSTENG 4430	Quality Engineering	
INDSTENG 4830	Engineering Continuous Improvement	
MECHENG 4230	Design & Control of Manufacturing Systems	
MECHENG 4340	Noise Control	
MECHENG 4430	Advanced Materials	
MECHENG 4440	Failure of Materials	
MECHENG 4450	Composite Materials	
MECHENG 4500	Biomedical Engineering	
MECHENG 4520	Power Plant Design	
MECHENG 4550	Heat Transfer Applications	
MECHENG 4560	Computational Fluid Dynamics	
MECHENG 4600	Energy Systems Design	
MECHENG 4630	Internal Combustion Engine Design	
MECHENG 4640	Mechanical Design of Internal Combustion Engines	
MECHENG 4650	Environmental Control Design	
MECHENG 4740	Mechanical Systems Design	
MECHENG 4750	Computational Methods in Engineering	
MECHENG 4800	Finite Element Method	
MECHENG 4820	Advanced Manufacturing Processes	
MECHENG 4830	Mechatronics	
MECHENG 4840	Advanced Vibrations	
MECHENG 4850	Computer-Aided Engineering	
MECHENG 4980	Current Topics in Engineering	
MECHENG 5000	Engineering Communications [3]	

Practical Experience

Select one additional course from the following or one additional Mechanical Engineering Technical Elective course listed above:		1-3
MECHENG 3950	Mechanical Engineering Cooperative Education	
MECHENG 3970	Mechanical Engineering Internship	
MECHENG 4940	Undergraduate Research	
Technical Elective Course		

Total Credits   **124-130**

[1]   All courses required by the Mechanical Engineering B.S. offered by the College of EMS in the 1000, 2000, and 3000-level must be completed with a grade of "C-" or better

[2]   (minimum 2.0 G.P.A. required)

[3]   This course is intended for Accelerated Bachelor's to Master's students only