

MECHANICAL ENGINEERING WITH BIOMEDICAL ENGINEERING EMPHASIS, B.S.

Course	Title	Credits
General Requirements		
General Education (http://catalog.uwplatt.edu/undergraduate/degree-requirements/bachelor-of-science-degree-core-curriculum/)		26
Required Courses		
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
BIOLOGY 2340	Essentials of Anatomy and Physiology	4
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
GENENG 2930	Applications of Electrical Engineering	3
Professional Engineering Courses ¹		
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 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	3
Practical Experience		
Select one additional course from the following or one additional Mechanical Engineering Technical Elective:		1-3
MECHENG 3950	Mechanical Engineering Cooperative Education	
MECHENG 3970	Mechanical Engineering Internship	
MECHENG 4940	Undergraduate Research	
Technical Elective Course		
Biomedical Engineering Courses		
BME 3030	Introduction to Biomedical Engineering	3
BME 3230	Introduction to Medical Instrumentation	3
or MECHENG 3720	Measurements and Instrumentation Laboratory	
Select 2 courses from BME 4130, BME 4330, or BME 4530:		6
BME 4130	Biomechanics	
BME 4330	Biofluidics	

2 Mechanical Engineering with Biomedical Engineering Emphasis, B.S.

BME 4530

Biomaterials

Total Credits

131-133

¹ A minimum 2.0 G.P.A. required in Professional Engineering courses.