

BS IN MECHANICAL ENGINEERING

Below is a sample plan of study for a BS in Mechanical Engineering with no concentration (general). Consult your degree audit for your program requirements.

First Term		Hours
MATH 1850	Single Variable Calculus I	4
ENGL 1110	College Composition I	3
CHEM 1230	General Chemistry I	4
MIME 1000	Orientation To ME & IE	3
MIME 1100	Introduction to CAD	3
Hours		17
Second Term		
MATH 1860	Single Variable Calculus II	4
PHYS 2130	Physics For Science And Engineering Majors I	5
MIME 1010	Professional Development	1
Select one of the following:		3
ECON 1010	Introduction To Economic Issues	
ECON 1150	Principles Of Macroeconomics	
ECON 1200	Principles Of Microeconomics	
ENGL 2950	Science And Technical Report Writing	3
Hours		16
Third Term		
MATH 2850	Elementary Multivariable Calculus	4
PHYS 2140	Physics For Science And Engineering Majors II	5
MIME 1650	Materials Science & Engineering	3
CIVE 1150	Engineering Mechanics: Statics	3
Arts/Humanities Core		3
Hours		18
Fourth Term		
MATH 2860	Elementary Differential Equations	3
MIME 2650	Manufacturing Processes	3
MIME 4000	Engineering Statistics I	3
MIME 2700	Applied Measure & Instrument	4
CIVE 1160	Engineering Mechanics: Strength Of Materials	3
Hours		16
Fifth Term		
MIME 3940	Co-Op Experience	1
Hours		1
Sixth Term		
MIME 2300	Engineering Dynamics	3
MIME 3300	Design And Analysis Of Mechanical Systems	3
MIME 3310	Mechanical Design I	3

MIME 3330	Mechanics Laboratory	1
MIME 3400	Thermodynamics I	3
Hours		13

Seventh Term

MIME 3940	Co-Op Experience	1
Hours		1

Eighth Term

MIME 3320	Mechanical Design II	3
MIME 3360	Vibration Laboratory	1
MIME 3370	Mechanical Vibration	3
MIME 3410	Thermodynamics II	3
MIME 3420	Fluids Laboratory	1
MIME 3430	Fluid Mechanics	3
Diversity of US		3
Hours		17

Ninth Term

MIME 3940	Co-Op Experience	1
Hours		1

Tenth Term

MIME 3200	Introduction to Project Engineering	3
MIME 3380	Modeling and Control of Engineering Systems	3
MIME 3440	Heat Transfer	3
MIME 3450	Energy Laboratory	1
Technical Elective		3
Technical Elective		3
Hours		16

Eleventh Term

MIME 4200	Senior Design Projects	3
Technical Elective		3
Technical Elective		3
Arts/Humanities Core/Non-US Diversity		3
Social Sciences Core		3
Hours		15
Total Hours		131

BS in Mechanical Engineering with a Mechatronics Concentration

Below is a sample plan of study with a concentration in Mechatronics. Consult your degree audit for your program requirements.

First Term		Hours
MATH 1850	Single Variable Calculus I	4
ENGL 1110	College Composition I	3
CHEM 1230	General Chemistry I	4
MIME 1000	Orientation To ME & IE	3
MIME 1100	Introduction to CAD	3
Hours		17

Second Term

MATH 1860	Single Variable Calculus II	4
PHYS 2130	Physics For Science And Engineering Majors I	5
MIME 1010	Professional Development	1
Select one of the following:		3
ECON 1010	Introduction To Economic Issues	
ECON 1150	Principles Of Macroeconomics	
ECON 1200	Principles Of Microeconomics	
ENGL 2950	Science And Technical Report Writing	3
Hours		16

Third Term

MATH 2850	Elementary Multivariable Calculus	4
PHYS 2140	Physics For Science And Engineering Majors II	5
MIME 1650	Materials Science & Engineering	3
CIVE 1150	Engineering Mechanics: Statics	3
Arts/Humanities Core		3
Hours		18

Fourth Term

MATH 2860	Elementary Differential Equations	3
MIME 2650	Manufacturing Processes	3
MIME 4000	Engineering Statistics I	3
CIVE 1160	Engineering Mechanics: Strength Of Materials	3
MIME 2700	Applied Measure & Instrument	4
Hours		16

Fifth Term

MIME 3940	Co-Op Experience	1
Hours		1

Sixth Term

MIME 2300	Engineering Dynamics	3
MIME 3300	Design And Analysis Of Mechanical Systems	3
MIME 3310	Mechanical Design I	3
MIME 3330	Mechanics Laboratory	1
MIME 3400	Thermodynamics I	3
Hours		13

Seventh Term

MIME 3940	Co-Op Experience	1
Hours		1

Eighth Term

MIME 3320	Mechanical Design II	3
MIME 3360	Vibration Laboratory	1
MIME 3370	Mechanical Vibration	3
MIME 3410	Thermodynamics II	3
MIME 3420	Fluids Laboratory	1
MIME 3430	Fluid Mechanics	3
Diversity of US		3
Hours		17

Ninth Term

MIME 3940	Co-Op Experience	1
Hours		1

Tenth Term

MIME 3200	Introduction to Project Engineering	3
MIME 3380	Modeling and Control of Engineering Systems	3
MIME 3440	Heat Transfer	3
MIME 3450	Energy Laboratory	1
MIME 4460	MATLAB for Engineers	3
Technical Elective		3
Hours		16

Eleventh Term

MIME 4200	Senior Design Projects	3
MIME 4430	Automotive Control Systems	3
or MIME 4450	or Automation Design	
MIME 4440	Mechatronics	3
Arts/Humanities Core/Non-US Diversity		3
Social Sciences Core		3
Hours		15
Total Hours		131

1. An ability to identify, formulate, and solve complex engineering problems by applying principles of engineering, science, and mathematics
2. an ability to apply engineering design to produce solutions that meet specified needs with consideration of public health, safety, and welfare, as well as global, cultural, social, environmental, and economic factors
3. an ability to communicate effectively with a range of audiences
4. an ability to recognize ethical and professional responsibilities in engineering situations and make informed judgments, which must consider the impact of engineering solutions in global, economic, environmental, and societal contexts
5. an ability to function effectively on a team whose members together provide leadership, create a collaborative and inclusive environment, establish goals, plan tasks, and meet objectives
6. an ability to develop and conduct appropriate experimentation, analyze and interpret data, and use engineering judgment to draw conclusions
7. an ability to acquire and apply new knowledge as needed, using appropriate learning strategies.