

# Study Plan of the BME Degree

(135 Credit Hours)

## Year I

### First Semester (16 Credit Hours)

Course	Title	Credits	Prerequisites
ENGL 101	Basic Academic English I	3	-
MATH 101	Calculus I	3	-
PHYS 101/101L	College Physics I + Lab	3+1	MATH 101 (co)
CSC 101	Introduction to Computing for Engineers	3	-
SOCS 101	Islamic Civilization I	3	-
<b>Total Credits</b>		<b>16</b>	

### Second Semester (17 Credit Hours)

Course	Title	Credits	Prerequisites
ENGL 102	Basic Academic English II	3	ENGL 101
MATH 102	Calculus II	3	MATH 101
PHYS 102/102L	College Physics II + Lab	3+1	PHYS 101
CHEM 101/101L	College Chemistry + Lab	3+1	-
ARAB101	Basic Academic Arabic	3	-
<b>Total Credits</b>		<b>17</b>	

### Summer Semester I (6 Credit Hours)

Course	Title	Credits	Prerequisites
ENGL 203	Advanced Academic English	3	ENGL 102
SOCS 201	Islamic Civilizations II	3	SOCS 101
<b>Total Credits</b>		<b>6</b>	

## Year II

### Third Semester (16 Credit Hours)

Course	Title	Credits	Prerequisites
MATH 201	Calculus and Analytic Geometry III	3	MATH 102
MECH 210	Thermodynamics	3	D. of Advisor
ELEE 210/210L	Electric Circuits I +LAB	3+1	PHYS 102
CIVE 210	Statics	3	MATH 102
ELEE 230/CSC 102	Programming for Engineers	3	CSC 101
<b>Total Credits</b>		<b>16</b>	

### Fourth Semester (16 Credit Hours)

Course	Title	Credits	Prerequisites
MATH 202	Differential Equations	3	MATH 201
MECH 220	Dynamics	3	MATH 201 + CIVE 210
MECH 230	Engineering Materials	3	
MECH 231	Strength of Materials	3	CIVE 210
ELEE 360	Electromechanical Devices	3	ELEE 210
MECH 200	Engineering Graphics	2	D. of adviser
<b>Total Credits</b>		<b>16</b>	

## Year III

### Fifth Semester (16 Credit Hours)

Course	Title	Credits	Prerequisites
STAT 230	Probability and Statistics	3	MATH 201

ENGL 206	Technical Writing	3	ENGL 203
MECH 320	Kinematics of Mechanical Systems	3	MECH 220
MECH 331	Materials Lab	1	MECH 230
MECH 341	Fluid Mechanics	3	MECH 220
MECH 350	Instrumentation and Measurements	3	MECH 341
<b>Total Credits</b>		<b>16</b>	

#### Sixth Semester (16 Credit Hours)

Course	Title	Credits	Prerequisites
COEN 300	Engineering Economy	3	STAT 230
MATH 215	Linear Algebra and Numerical Techniques	3	MATH 201
MECH 330	Mechanical Design	3	MECH 200, 230, 231
MECH 342	Heat Transfer	1	MECH 341
MECH 360	Manufacturing Processes I	3	MECH 230
MECH 361	Manufacturing Processes Lab	3	MECH 361 (co)
<b>Total Credits</b>		<b>16</b>	

#### Summer Semester II (1 Credit Hours)

Course	Title	Credits	Prerequisites
MECH 400	Internship for BME Students	1	
<b>Total Credits</b>		<b>1</b>	

### Year IV

#### Seventh Semester (14 Credit Hours)

Course	Title	Credits	Prerequisites
MECH 401	Final Year Project I	1	Senior Standing
ARAB 201	Advanced Academic Arabic	3	ARAB 101
MECH 490	System Dynamics and Control	3	MECH 220 + ELEE 210
MECH 491	System Dynamics and Control Lab	1	MECH 350 + MECH 490
ME Elective	Mechanical Engineering Elective	3	-
ME Elective	Mechanical Engineering Elective	3	-
<b>Total Credits</b>		<b>14</b>	

#### Eighth Semester (16 Credit Hours)

Course	Title	Credits	Prerequisites
MECH 402	Final Year Project II	3	MECH 401
SOCS 202	World Civilizations	3	-
COEN 400	Engineering Ethics	3	-
MECH 411	Thermal-Fluid Systems Lab	1	MECH 342
ME Elective	Mechanical Engineering Elective	3	-
ME Elective	Mechanical Engineering Elective	3	-
<b>Total Credits</b>		<b>16</b>	

### Total Program Credits

**135\***

\*Completion of Bachelor degree in Mechanical Engineering.