

**COLLEGE OF ENGINEERING**  
**BACHELOR OF SCIENCE IN MECHANICAL ENGINEERING (BSME)**  
 School Year 2012-2013

**THIRD YEAR**

<b>First Semester Subject Code</b>	<b>Description</b>	<b>Hrs Lec</b>	<b>Hrs Lab</b>	<b>Units Credit</b>	<b>Pre-requisites</b>
Math 6	Differential Equations	3	0	3	Math 5B
Mech 311S	Statics of Rigid Bodies	3	0	3	Phys 1A Lec/Lab
ME 311	Thermodynamics 1	3	0	3	Math 5B & Phys 2A Lec/Lab
ME 313 Lec	Machine Elements 1	2	0	2	Draw 122 & Phys 2A Lec/Lab
ME 313 Lab	Machine Elements 1 Lab	0	3	1	Draw 122 & Phys 2A Lec/Lab
ME 314	Workshop Theory and Practice	0	6	2	-
EE 311 Lec	Direct and Alternating Current Circuits	2	0	2	Phys 2A Lec/Lab
EE 311 Lab	Direct and Alternating Current Circuits Lab	0	3	1	Phys 2A Lec/Lab
ECE 311	Basic Electronics	3	0	3	Phys 2A Lec/Lab
ME ORTN	Orientation to ME	1	0	1	-
<b>TOTAL</b>				<b>21</b>	

<b>Second Semester Subject Code</b>	<b>Description</b>	<b>Hrs Lec</b>	<b>Hrs Lab</b>	<b>Units Credit</b>	<b>Pre-requisites</b>
Math 8	Advanced Engineering Mathematics for ME	3	0	3	Math 6
Mech 322D	Dynamics of Rigid Bodies	2	0	2	Mech 311S
Mech 323	Mechanics of Deformable Bodies	3	0	3	Mech 311S
ME 325	Thermodynamics 2	3	0	3	ME 311
Emat Lec	Materials Engineering	3	0	3	Chem 2 Lec/Lab
Emat Lab	Materials Engineering Lab	0	3	1	Chem 2 Lec/Lab
ME 326 Lec	Machine Elements 2	2	0	2	ME 313 Lec/Lab
ME 326 Lab	Machine Elements 2 Lab	0	3	1	ME 313 Lec/Lab
CpE 321 Lec	Computer Fundamentals and Programming	2	0	2	CpE 211 Lec/Lab
CpE 321 Lab	Computer Fundamentals and Programming Lab	0	3	1	CpE 211 Lec/Lab
ME 327	Machine Shop Theory	0	6	2	ME 314
ME 328	ME Laboratory 1	0	6	2	-
<b>TOTAL</b>				<b>25</b>	

**FOURTH YEAR**

<b>First Semester Subject Code</b>	<b>Description</b>	<b>Hrs Lec</b>	<b>Hrs Lab</b>	<b>Units Credit</b>	<b>Pre-requisites</b>
ME 419	Machine Design 1	3	0	3	ME 326 Lec/Lab, ME 323 & Emat Lec/Lab
ME 4110	Heat and Mass Transfer	2	0	2	ME 311
ME 4111	ME Laboratory 2	0	6	2	ME 328
ME 4112	Combustion Engineering	2	0	2	ME 311
Mech 413	Fluid Mechanics	3	0	3	Mech 311S & Mech 322D
ME 4113	Refrigeration Systems	3	0	3	-
MR 411	Methods of Research	3	0	3	-
Eco 1	Basic Economics with TLR	3	0	3	-
SFT MGMT	Safety Management	1	0	1	-
ME 4222	Vibration Engineering	3	0	3	-
<b>TOTAL</b>				<b>25</b>	

Name: \_\_\_\_\_  
 Student No.: \_\_\_\_\_  
 Course: \_\_\_\_\_  
 Yr./Section: \_\_\_\_\_

**COLLEGE OF ENGINEERING  
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**Second Semester**

<b>Subject Code</b>	<b>Description</b>	<b>Hrs Lec</b>	<b>Hrs Lab</b>	<b>Units Credit</b>	<b>Pre-requisites</b>
ME 4215	Machine Design 2	3	0	3	ME 419 Lec/Lab
ME 4217 Lec	Airconditioning and Ventilation Systems and Design	2	0	2	ME 311
ME 4217 Lab	Airconditioning and Ventilation Systems and Design Lab	0	3	1	ME 311
ME 4218	ME Laboratory 3	0	6	2	ME 4111
ME Elec 1	ME Elective 1 (Alternative Energy Resource)	3	0	3	-
ME 4221	Fluid Machinery	3	0	3	Mech 413
ME Elec 2	ME Elective 2 (Energy Management Industry)	3	0	3	-
EE 322 Lec	DC and AC Machinery	3	0	3	EE 311 Lec/Lab
EE 322 Lab	DC and AC Machinery Lab	0	3	1	EE 311 Lec/Lab
Emgt	Engineering Management	3	0	3	-
SFT Eng	Safety Engineering for ME	2	0	2	-
<b>TOTAL</b>				<b>26</b>	

**Summer**

<b>Subject Code</b>	<b>Description</b>	<b>Hrs Lec</b>	<b>Hrs Lab</b>	<b>Units Credit</b>	<b>Pre-requisites</b>
ME Ethics	ME Laws, Ethics, Codes and Standards	3	0	3	-
ECE 4110 Lec	Instrumentation and Control Engineering	2	0	2	EE 311 Lec/Lab
ECE 4110 Lab	Instrumentation and Control Engineering Lab	0	3	1	EE 311 Lec/Lab
ME 5123	Industrial Processes	2	0	2	-
ME PS 1	ME Project Study 1	0	3	1	ME 326 Lec/Lab, ME 4113, EEco, MR 411
<b>TOTAL</b>				<b>9</b>	

**FIFTH YEAR**

**First Semester**

<b>Subject Code</b>	<b>Description</b>	<b>Hrs Lec</b>	<b>Hrs Lab</b>	<b>Units Credit</b>	<b>Pre-requisites</b>
ME Elec 3	ME Elective 3 (Solar Energy and Wind Energy Utilization)	3	0	3	-
EEco	Engineering Economy	3	0	3	Eco 1
ME 5224	Industrial Plant Engineering	3	0	3	-
ME 5225 Lec	Power Plant Engineering and Design	4	0	4	ME 4218
ME 5225 Lab	Power Plant Engineering and Design Lab	0	3	1	ME 4218
ME 5226	Seminars and Plant Visits	0	3	1	-
ME Elec 4	ME Elective 4 (Micro-hydro-electric Power Plant Design)	3	0	3	-
ME 5227	ME Special Topics	3	0	3	-
ME PS 2	ME Project Study 2	0	3	1	ME PS 1
<b>TOTAL</b>				<b>22</b>	

**Second Semester**

<b>Subject Code</b>	<b>Description</b>	<b>Hrs Lec</b>	<b>Hrs Lab</b>	<b>Units Credit</b>	<b>Pre-requisites</b>
OJT	On-The-Job Training	0	600	3	-
<b>TOTAL</b>				<b>3</b>	

**Suggested ME Electives:**

Alternative Energy Resource  
Solar Energy and Wind Energy Utilization  
Energy Management Industry  
Micro-hydro-electric Power Plant