



**UNDERGRADUATE CURRICULUM GUIDE**  
**Bachelor of Science in Mechanical Engineering**  
 2004-2005 Catalog (Code: MAE\_BS01)

**FRESHMAN YEAR**

<b><u>FIRST SEMESTER</u></b>			<b><u>SECOND SEMESTER</u></b>		
<b><u>COURSE</u></b>	<b><u>TITLE</u></b>	<b><u>UNITS</u></b>	<b><u>COURSE</u></b>	<b><u>TITLE</u></b>	<b><u>UNITS</u></b>
UNIV 100	Univ. in Your Future	1	PHYS. 151*	Mech/Heat & Sound (GE B1b)	4
GEN ED*	General Education (GE A1)	3	MATH 123*	Anal. Geom. & Calc. II (GE B2)	4
MAE 172	Engineering Graphics I	3	GEN ED*	General Education (GE A3)	3
MATH 122*	Anal. Geom. & Calc. I (GE B2)	4	CHEM 111A	General Chemistry	5
GEN ED*	General Education (GE D1b)	3	ENGR 101	Intro. to Engineering	1
GEN ED*	General Education (GE A3)	3			
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		17			17

**SOPHOMORE YEAR**

CE 205	Anal. Mech. I (Statics)	3	EE 211	Electric Circuits I	3
PHYS 152	Elec. & Magnetism (B3)	4	EE 211L	Electric Circuits Laboratory	1
Math 224	Anal. Geom. & Calc. III	4	Gen. Ed.*	General Education (C1)	3
MAE 205	Computer Methods in ME	2	MAE 322	Engr Matls & Materials Proc.	3
GEN ED*	General Education (D1a)	3	MATH 370A	Applied Mathematics	3
MAE 272	Intro. to Manufacturing Proc.	2	GEN ED*	General Education (GE D1b)	3
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		18			16

**JUNIOR YEAR**

CE 335	Fluid Mechanics	3	MAE 361	Materials & Properties Lab	1
MAE 373	Mech. of Deformable Bodies	3	MAE 336	Power Plant Design	3
MAE 300	Engr Instrumentation & Meas.	2	MAE 376	Modeling & Anal Dyn Systems	3
MAE 330	Engr. Thermodynamics I	3	GEN ED*	General Education (GE UDIC)	3
MAE 371	Anal. Mech. II (Dynamics)	3	MAE 375	Kinematics & Dyn. of Mech.	3
MAE 305	Numerical Methods in ME	3	ECON 300*	Fund. of Economics (GE D2)	3
			CE 336	Fluid Mechanics Lab	1
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		17			17

**SENIOR YEAR**

MAE 476	Mech. Control Sys. I	3	CE 406	Engr. Econ. & Admin.	3
GEN ED*	General Education (GE UDIC)	3	GEN ED*	General Education	6
MAE 337	Thermal Engr Lab	2	MAE 459	Professional Practice Sem	1
MAE 431	Heat Transfer Systems Design	3	MAE 472	Design of Mech. Engr. Sys.	3
MAE 471	Anal. Desn. Mech. Comp.	3	MAE 409	Mod. Comp. Aspects in ME	3
MAE 490	Special Topics in ME	3			
	(or equivalent technical elective)	-----			-----
		17			16

**\*General Education:** A minimum of nine (9) units of Upper-Division (UD) are required. Six (6) units must be Upper-Division Interdisciplinary (UDI) in one particular THEME (please see the College of Engineering section in the University Catalog). A minimum of nine (9) units of Capstone courses (▲), with three (3) units of Global (●) and three (3) units of Human Diversity (◆), are required. Please consult a General Education advisor.

The above 135 units minimum program allows for a six (6) unit General Education waiver (3 units in category D2, and 3 in B1a or C3 or E). **All IC and category A classes must be taken for a letter grade.** Students are advised to plan their programs with care in order to meet all departmental and General Education requirements within 135 units.