

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

**1<sup>st</sup> 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	Intro to the University	1	PHYS 151	Mech. & Heat (B1b)	4
MAE 172	Engineering Graphics	3	MATH 123	Calculus II (B2)	4
MATH 122	Calculus I (B2)	4	ENGR 101	Intro to Engineering	1
GEN ED	General Education (A1)	3	CHEM 111A	General Chemistry (B1b)	5
GEN ED	General Education (D1b)	3			
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		14			14

**2<sup>nd</sup> YEAR**

CE 205	Anal Mech I (Statics)	3	MAE 205	Computer Methods in ME	2
MATH 224	Anal. Geom. & Calc. III	4	MAE 272	Into to Manufacturing Processes	2
PHYS 152	Elec. & Magnetism (B1b)	4	EE 211	Electric Circuits I	3
GEN ED*	General Education (D1a)	3	EE 211L	Electric Circuits Laboratory	1
			GEN ED*	General Education (A2)	3
			GEN ED*	General Education (C1)	3
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		14			14

**3<sup>rd</sup> YEAR**

MAE 300	Engr Instrumentation & Meas.	2	MAE 305	Numerical Methods in ME	3
MAE 322	Engr. Matls & Matls Processes	3	MAE 336	Power Plant Design	3
MAE 330	Engr. Thermodynamics I	3	MAE 371	Anal. Mech. II (Dynamics)	3
MATH 370A	Applied Mathematics	3	ECON 300*	Fundamentals of Econ. (GE D2)	3
GEN ED	General Education (A3)	3	GEN ED*	General Education (UDIC1)	3
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		14			15

**4<sup>th</sup> YEAR**

MAE 337	Thermal Engr Lab	2	MAE 361	Materials & Properties Lab	1
MAE 373	Mech. of Deformable Bodies	3	MAE 375	Kinematics & Dynamics of Mech.	3
CE 335	Fluid Mechanics	3	MAE 376	Modeling & Anal. Dyn. Sys.	3
CE 336	Fluid Mechanics Lab	1	GEN ED*	General Education	3
GEN ED*	General Education (UDIC2)	3	GEN ED*	General Education	3
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		12			13

**5<sup>th</sup> YEAR**

MAE 409	Mod. Comp. Aspects in ME	3	MAE 472	Design of ME Systems	3
MAE 459	Professional Practice Seminar	1	MAE 476	Mechanical Control Systems I	3
MAE 431	Heat Transfer Systems Design	3	MAE 490	Special Topics in MAE	3
MAE 471	Anal. Desn. Mech. Comp.	3	CE 406	Engineering Economics	3
GEN ED*	General Education	3			
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		13			12

**\*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 135units.

*Revised 10 /15/03*