

6-Year UNDERGRADUATE CURRICULUM PLAN
Bachelor of Science in Mechanical Engineering (Code: MAE_BS01)
Effective 2004-2005 Catalog Year

| <u>1st YEAR</u> | | | <u>2nd YEAR</u> | | |
|----------------------------|----------------------------------|--------------|----------------------------|-------------------------------|--------------|
| <u>FIRST SEMESTER</u> | | | <u>SECOND SEMESTER</u> | | |
| <u>COURSE</u> | <u>TITLE</u> | <u>UNITS</u> | <u>COURSE</u> | <u>TITLE</u> | <u>UNITS</u> |
| UNIV 100 | Intro to the University | 1 | PHYS 151 | Mech. & Heat (B1b) | 4 |
| MAE 172 | Engineering Graphics | 3 | ENGR 101 | Intro to Engineering | 1 |
| MATH 122 | Calculus I (B2) | 4 | GEN ED* | General Education (A2) | 3 |
| GEN ED* | General Education (A1) | 3 | GEN ED* | General Education (D1b) | 3 |
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| | | 11 | | | 11 |
| <u>2nd YEAR</u> | | | <u>3rd YEAR</u> | | |
| MATH 123 | Calculus II (B2) | 4 | MATH 224 | Anal. Geom. & Calc. III | 4 |
| CHEM 111A | General Chemistry (B1b) | 5 | PHYS 152 | Elec. & Magnetism (B1b) | 4 |
| GEN ED* | General Education (D1a) | 3 | GEN ED* | General Education (C1) | 3 |
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| | | 12 | | | 11 |
| CE 205 | Anal Mech I (Statics) | 3 | MAE 205 | Computer Methods in ME | 2 |
| EE 211 | Electric Circuits I | 3 | MAE 322 | Engr Matls & Matls Processes | 3 |
| EE 211L | Electric Circuits Laboratory | 1 | MATH 370A | Applied Mathematics | 3 |
| MAE 272 | Intro to Manufacturing Processes | 2 | ECON 300* | Fundamentals of Econ. (GE D2) | 3 |
| GEN ED* | General Education (A3) | 3 | | | ----- |
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| | | 12 | | | 11 |
| <u>4th YEAR</u> | | | <u>5th YEAR</u> | | |
| MAE 330 | Engr Thermodynamics I | 3 | MAE 336 | Power Plant Design | 3 |
| MAE 373 | Mech. of Deformable Bodies | 3 | MAE 371 | Anal Mech II (Dynamics) | 3 |
| MAE 300 | Engr Instrumentation & Meas. | 2 | MAE 361 | Materials & Properties Lab | 1 |
| GEN ED* | General Education (UDIC1) | 3 | GEN ED* | General Education (UDIC2) | 3 |
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| | | 11 | | | 10 |
| MAE 337 | Thermal Engr Lab | 2 | MAE 375 | Kinematics & Dynamics of Mech | 3 |
| MAE 305 | Numerical Methods in ME | 3 | MAE 376 | Modeling & Anal Dyn Sys | 3 |
| CE 335 | Fluid Mechanics | 3 | MAE 431 | Heat Transfer Systems Design | 3 |
| CE 336 | Fluid Mechanics Lab | 1 | GEN ED* | General Education | 3 |
| GEN ED* | General Education | 3 | | | ----- |
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| | | 12 | | | 12 |
| <u>6th YEAR</u> | | | <u>6th YEAR</u> | | |
| MAE 409 | Mod Comp Aspects in ME | 3 | MAE 459 | Professional Practice Seminar | 1 |
| MAE 471 | Anal Desn Mech Comp | 3 | MAE 472 | Design of ME Systems | 3 |
| MAE 476 | Mechanical Control Systems I | 3 | MAE 490 | Special Topics in MAE | 3 |
| GEN ED* | General Education | 3 | CE 406 | Engineering Economics | 3 |
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| | | 12 | | | 10 |

***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