

5-Year UNDERGRADUATE CURRICULUM PLAN
Bachelor of Science in Aerospace Engineering (Code: MAE_BS02)
Effective 2003-2004 Catalog Year

F=Fall only; S=Spring only; F,S=offered both Fall and Spring

| <u>1st 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> |
| MAE 101A | Intro to Aerospace Engineering | 1 (F) | MATH 123 | Calculus II (B2) | 4 |
| UNIV 100 | Intro to the University | 1 | PHYS 151 | Mech. & Heat (B1b) | 4 |
| MATH 122 | Calculus I (B2) | 4 | GEN ED | General Education (A2) | 3 |
| GEN ED | General Education (A1) | 3 | GEN ED | General Education (B1a or C3 or E) | 3 |
| GEN ED | General Education (D1b) | 3 | | | |
| | | ---- | | | ---- |
| | | 12 | | | 14 |
| | | | | | |
| <u>2nd YEAR</u> | | | | | |
| MATH 224 | Anal. Geom. & Calc. III | 4 | CHEM 111A | General Chemistry (B1b) | 5 |
| PHYS 152 | Elec. & Magnetism (B1b) | 4 | CE 205 | Anal Mech I (Statics) | 3 |
| MAE 172 | Engineering Graphics | 3 (F,S) | EE 211 | Electric Circuits I | 3 |
| GEN ED | General Education (A3) | 3 | EE 211L | Electric Circuits Laboratory | 1 |
| | | | MAE 205 | Computer Methods in ME | 2 (F,S) |
| | | ---- | | | ---- |
| | | 14 | | | 14 |
| | | | | | |
| <u>3rd YEAR</u> | | | | | |
| MATH 370A | Applied Math I | 3 | MAE 330 | Engr. Thermodynamics I | 3 (F,S) |
| ECON 300 | Fund. of Economics (D2b) | 3 | MAE 373 | Mech. of Deformable Bodies | 3 (F,S) |
| MAE 371 | Anal. Mech. II (Dynamics) | 3 (F,S) | MAE 390 | AE Seminar & Comm. Skills | 1 (S) |
| GEN ED | General Education (C1) | 3 | GEN ED | General Education (D1a) | 3 |
| GEN ED | General Education (D2a) | 3 | GEN ED | General Education (C2a,b, or c) | 3 |
| | | ---- | | | ---- |
| | | 15 | | | 13 |
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| <u>4th YEAR</u> | | | | | |
| MAE 333 | Engr. Fluid Mechanics | 3 (F) | MAE 334 | Aerodynamics I | 3 (S) |
| MAE 350 | Flight Mechanics | 3 (F) | MAE 365 | Aerospace Structures I | 3 (S) |
| MAE 408 | Systems Engr. & Integration | 3 (F,S) | MAE 381 | Space Environments | 3 (S) |
| GEN ED* | General Education (C2a,b,or c) | 3 | MAE 453 | Stability & Cont Aero Vehicles | 3 (S) |
| MAE 374 | Mech. Prop. Matls. Lab | 1 (F,S) | | | |
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| | | 13 | | | 12 |
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| <u>5th YEAR</u> | | | | | |
| MAE 434 | Aerodynamics II | 3 (F) | MAE 452 | Propulsion | 3 (S) |
| MAE 465 | Aerospace Structures II | 3 (F) | MAE 479 | A/S System Design II | 3 (S) |
| MAE 478 | A/S System Design I | 3 (F) | MAE 486 | Avionics Systems | 3 (S) |
| MAE 483 | Space Flight & Orbital Mech. | 3 (F) | MAE XXX | Elective | 3 |
| | | | MAE 440 | Aerodynamics Lab | 1 (S) |
| | | ---- | | | ---- |
| | | 12 | | | 13 |

***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 132 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 132units.

Revised 10 /15/03