

Curriculum

□ Undergraduate Course

| Classification | Subject No. | Subject Name | Lecture:Lab.: Credit (Homework) | Semester | Remark |
|-------------------------|-------------|--|---------------------------------------|----------------|--------|
| Elective Basic Courses | MAE107 | Sky and Space | 3:0:3(6) | Fall | |
| Mandatory Major Courses | MAE210 | Thermodynamics | 3:0:3(6) | Spring | |
| | MAE220 | Fluid Mechanics | 3:0:3(6) | Fall | |
| | MAE230 | Solid Mechanics | 3:0:3(6) | Spring | |
| | MAE250 | Dynamics | 3:0:3(6) | Fall | |
| | MAE308 | Aerospace Engineering Laboratory I | 1:3:2(3) | Spring | |
| | MAE309 | Aerospace Engineering Laboratory II | 1:3:2(3) | Fall | |
| | MAE405 | Aerospace System Design I | 2:3:3(8) | Spring | |
| Elective Major Courses | MAE200 | Basic Mechanical Practice | 2:3:3(3) | Spring | |
| | MAE260 | Elementary mathematics for Aerospace Mechanics | 3:0:3 | Spring, Fall | |
| | MAE285 | Software Application in Aerospace Engineering I | 1:6:3(8) | Fall | |
| | MAE291 | Introductory Space Projects | 2:2:2 | Spring | |
| | MAE292 | Introductory Aeronautical Projects | 2:2:2(4) | Fall | |
| | MAE301 | Numerical Methods | 3:0:3(6) | Fall | |
| | MAE307 | Applied Electronics | 2:3:3(6) | Spring | |
| | MAE311 | Heat Transfer | 3:0:3(6) | Spring | |
| | MAE315 | Aerospace Propulsion System | 3:0:3(6) | Fall | |
| | MAE325 | Aerodynamics | 3:0:3(6) | Spring | |
| | MAE326 | Compressible Aerodynamics | 3:0:3(6) | Fall | |
| | MAE335 | Aerospace Structures | 3:0:3(6) | Spring | |
| | MAE351 | Mechanical Vibration | 3:0:3(6) | Fall | |
| | MAE365 | Flight Mechanics | 3:0:3(6) | Fall | |
| | MAE406 | Aerospace System Design II | 1:6:3(6) | Fall | |
| | MAE415 | Combustion Engineering | 3:0:3(6) | Spring | |
| | MAE425 | Viscous Aerodynamics | 3:0:3(6) | Spring | |
| | MAE435 | Computational Methods in Aerospace Structural Analysis | 3:0:3(8) | Fall | |
| | MAE463 | Global Positioning System | 3:0:3(6) | Spring | |
| | MAE464 | Fundamentals of Control Theory and Practice | 3:1:3(6) | Spring | |
| | MAE465 | Flight Dynamics and Control | 3:0:3(6) | Fall | |
| | MAE466 | Satellite Systems | 3:0:3(6) | Spring | |
| | MAE467 | Aerospace Sensors and Actuators | 3:0:3(6) | Fall | |
| | MAE485 | Software Application in Aerospace Engineering II | 1:6:3(8) | Fall | |
| | MAE492 | Special Lectures in Aerospace Engineering | 3:0:3(6) | Spring or Fall | |
| Research | MAE490 | Thesis Study | 0:6:3 | Spring or Fall | |
| | MAE495 | Individual Study | 0:6:1 | Spring or Fall | |
| | MAE496 | Seminar | 1:0:1 | Spring or Fall | |

* Except for MAE211, 221, 231, 251 every elective major course from Mechanical Engineering is recognized as Aerospace Engineering elective major courses.

□ Graduate Course

| Classification | Subject No. | Subject Name | Lecture:Lab.: Credit (Homework) | Semester | Remark |
|---------------------------|-------------|---|---------------------------------|----------------|--------|
| Mandatory General Courses | CC020 | Ethics and Safety I | 1AU | Spring/Fall | |
| | CC510 | Introduction to Computer Application | 2:3:3(10) | Spring/Fall | |
| | CC511 | Probability and Statistics | 2:3:3(6) | Spring/Fall | |
| | CC512 | Introduction to Materials Science and Engineering | 3:0:3(3) | Spring/Fall | |
| | CC513 | Engineering Economy and Cost Analysis | 3:0:3(6) | Spring | |
| | CC522 | Introduction to Instruments | 2:3:3(6) | Spring/Fall | |
| | CC530 | Entrepreneurship and Business Strategies | 3:0:3(6) | Spring/Fall | |
| | CC532 | Collaborative System Design and Engineering | 4:0:4 | Spring | |
| Elective Major Course | MAE500 | Mathematical Methods in Mechanical Engineering | 3:0:3(6) | Spring | |
| | MAE518 | Rocket System Engineering | 3:0:3(6) | Fall | |
| | MAE522 | Advanced Aerodynamics | 3:0:3(6) | Spring | |
| | MAE523 | Helicopter Aeromechanics | 3:0:3(6) | Spring | |
| | MAE524 | Computational Fluid Dynamics | 3:0:3(8) | Fall | |
| | MAE527 | Experimental Methods in Aerodynamics | 1:6:3(6) | Spring | |
| | MAE528 | Aeroacoustics | 3:0:3(6) | Fall | |
| | MAE538 | Flight Vehicle Structures | 3:0:3(6) | Spring | |
| | MAE540 | Structural Dynamics | 3:0:3(6) | Fall | |
| | MAE542 | Mechanics of Composite Materials | 3:0:3(6) | Fall | |
| | MAE566 | Spacecraft Trajectory Guidance and Control | 3:0:3(6) | Spring | |
| | MAE584 | Smart Composite Lab. | 2:3:3(6) | Fall | |
| | MAE593 | Aerothermochemistry and Combustion | 3:0:3(6) | Fall | |
| | MAE594 | Radiation and Combustion Phenomena | 3:0:3(6) | Fall | |
| | MAE595 | Introduction to Optimal Control | 3:0:3(6) | Spring | |
| | MAE596 | Advanced Flight Stability and Control | 3:0:3(6) | Fall | |
| | MAE597 | Spacecraft Attitude Dynamics and Control | 3:0:3(6) | Spring | |
| | MAE618 | Kinetic Theory of Gases | 3:0:3(6) | Fall | |
| | MAE622 | Compressible Shear Flows | 3:0:3(6) | Fall | |
| | MAE624 | Advanced Computational Fluid Dynamics | 3:0:3(8) | Spring | |
| | MAE625 | Advanced Gas Dynamics | 3:0:3(6) | Spring | |
| | MAE626 | Hypersonics Aerodynamics | 3:0:3(6) | Spring | |
| | MAE627 | Nonlinear Wave Theory | 3:0:3(6) | Spring | |
| | MAE628 | Unsteady Fluid Flows | 3:0:3(6) | Fall | |
| | MAE629 | Biomedical Fluid Dynamics | 3:0:3(6) | Fall | |
| | MAE636 | Theory of Plates and Shells | 3:0:3(6) | Fall | |
| | MAE637 | Aeroelasticity | 3:0:3(6) | Fall | |
| | MAE663 | Experiments in Flight Control | 2:3:3(6) | Spring | |
| | MAE664 | Navigation and Guidance | 3:0:3(6) | Spring | |
| | MAE726 | Equilibrium Hypersonic Aerothermodynamics | 3:0:3(6) | Spring | |
| | MAE727 | Nonequilibrium Hypersonic Aerothermodynamics | 3:0:3(6) | Fall | |
| | MAE728 | Reentry Aerothermodynamics | 3:0:3(6) | Fall | |
| | MAE820 | Special Topics in Aerodynamics | 3:0:3(6) | Fall | |
| | MAE840 | Special Topics in Flight Vehicle Structures | 3:0:3(6) | Fall | |
| | MAE860 | Special Topics in Propulsion and Combustion | 3:0:3(6) | Fall | |
| | MAE880 | Special Topics in Flight Mechanics and Control | 3:0:3(6) | Fall | |
| | MAE890 | Special Topics in Aerospace Engineering | 3:0:3(6) | Spring or Fall | |
| Research | MAE960 | Thesis / Dissertation Research (Master) | | Spring or Fall | |

| Classification | Subject No. | Subject Name | Lecture:Lab.: Credit (Homework) | Semester | Remark |
|----------------|-------------|---|---------------------------------|----------------|--------|
| | MAE980 | Thesis / Dissertation Research (Doctoral) | | Spring or Fall | |
| | MAE966 | Seminar (Master) | 1:0:1 | Spring or Fall | |
| | MAE986 | Seminar (Doctoral) | 1:0:1 | Spring or Fall | |

※ Note: 400 and 500 level courses open to both undergraduate and graduate students