

Curriculum

| Classification | | Subject No. | Subject Name | Lecture:Lab: Credit (Homework) | Semester | Remark |
|--------------------------|--------------------------------------|----------------------------|--|--------------------------------|----------------|--------|
| Mandatory General Course | required | CC020 | Ethics and Safety I | 1AU | Spring, Fall | |
| | choose one course | CC500 | Scientific Writing | 3:0:3(4) | 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 or Fall | |
| | | CC522 | Introduction to Instruments | 2:3:3(8) | Fall | |
| | | CC530 | Entrepreneurship and Business Strategies | 3:0:3(6) | Spring or Fall | |
| Mandatory Major Course | | SPE510 | Space Mission and Orbit Analysis | 3:0:3(6) | Spring | |
| | | SPE520 | Introduction to Spacecraft Engineering | 3:0:3(6) | Fall | |
| Elective Course | Division of Aerospace Engineering | MAE463 | Global Positioning System | 3:0:3(6) | Spring | ** |
| | | MAE466 | Satellite Systems | 3:0:3(6) | Spring | ** |
| | | MAE518 | Rocket System Engineering | 3:0:3(6) | Fall | ** |
| | | MAE540 | Structural Dynamics | 3:0:3(6) | Fall | ** |
| | | MAE542 | Mechanics of Composite Materials | 3:0:3(6) | Fall | ** |
| | | MAE595 | Introduction to Optimal Control | 3:0:3(6) | Spring | ** |
| | | MAE597 | Spacecraft Dynamics | 3:0:3(6) | Spring | ** |
| | | MAE664 | Navigation and Guidance | 3:0:3(6) | Spring | |
| | MAE728 | Reentry Aerothermodynamics | 3:0:3(6) | Fall | | |
| | Division of Mechanical Engineering | MAE430 | Introduction to Reliability in Mechanical Engineering Design | 3:0:3(6) | Fall | ** |
| | | MAE500 | Mathematical Methods in Mechanical Engineering | 3:0:3(6) | Spring | ** |
| | | MAE502 | Introduction to Finite Element Method | 3:0:3(6) | Spring | ** |
| | | MAE505 | Sensor and Instrumentation Engineering | 3:1:3(6) | Fall | ** |
| | | MAE550 | Advanced Dynamics | 3:0:3(6) | Fall | ** |
| | | MAE551 | Vibration in Linear Systems | 3:0:3(6) | Spring | ** |
| | | MAE561 | Linear System Control | 3:0:3(6) | Spring | ** |
| | MAE563 | Microprocessor Application | 2:3:3(6) | Fall | ** | |
| | Department of Electrical Engineering | EE421 | Wireless Communication Systems | 3:0:3(6) | Spring | ** |
| | | EE432 | Digital Signal Processing | 3:0:3(6) | Spring, Fall | ** |
| | | EE535 | Digital Image Processing | 3:0:3(6) | Spring | ** |
| | | EE542 | Microwave Engineering | 3:1:3(6) | Fall | ** |
| | | EE567 | Photovoltaic Power Generation | 3:0:3(6) | Spring | ** |
| | | EE571 | Advanced Electronic Circuits | 3:0:3(6) | Spring | ** |
| | | EE581 | Linear Systems | 3:0:3(6) | Spring | ** |
| EE594 | | Power Electronics Systems | 3:0:3(6) | Fall | ** | |
| EE681 | | Nonlinear Control | 3:0:3(6) | Fall | ** | |

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|----------------|--|-------------------------------|---|--------------------------------|--|--------|
| | Department of Physics | PH441 | Introduction to Plasma Physics | 3:0:3(4.5) | Fall | ** |
| | | PH481 | Astrophysics | 3:0:3(4.5) | Fall | ** |
| | | PH622 | Geometrical Optics | 3:0:3(4.5) | Spring or Fall | |
| | Department of Industrial & Systems Engineering | IE425 | Project Management | 3:1:3(4) | Spring | ** |
| | | IE632 | Stochastic Modeling I | 3:1:3(5) | Fall | |
| | Department of Computer Science | CS453 | Formal software verification techniques | 3:0:3(6) | Fall | ** |
| | | CS530 | Operating System | 3:0:3(6) | Spring or Fall | ** |
| | | CS552 | Models of Software Systems | 3:3:3(10) | Fall | ** |
| | | CS554 | Designs for Software and Systems | 2:3:3(4) | Fall | ** |
| | | CS632 | Embedded Operating Systems | 3:0:3(6) | Fall | |
| Research | MAE965 | Individual Research(master's) | - | Spring,Fall | for the coursework master's degree program | |
| | MAE966 | seminar(master) | 1:0:1 | Spring,Fall | | |

※ Note: ** stands for courses open to both undergraduate and graduate students