MS Applied Physics

Example Program Schedules

 Core Analytical Requirement
 Elective Courses

 Area Foundational Course
 Breadth Elective

Electromagnetic Wave Propagation and Scattering

| Semester 1 (Fall) | Semester 2 (Spring) | Semester 3 (Fall) |
|---|--|---|
| EE 604 Analytical and Algorithmic Methods of Applied Physics (4) | EE 570a Advanced Electromagnetic Theory (4) | EE 571 Wave Interactions with Random and Inhomogeneous Media (4) |
| AME 508 Machine Learning and Computational Physics (4) | EE 551 Principles of Radar (4) | EE 573a Antenna Systems Engineering (4) |
| | EE 530 Optical Materials, Instruments, and Devices (4) | |
| (8 units total) | (12 units total) | (8 units total) |

Photonics and Optics

| Semester 1 (Fall) | Semester 2 (Spring) | Semester 3 (Fall) |
|---|--|---|
| EE 604 Analytical and Algorithmic Methods of Applied Physics (4) | EE 530 Optical Materials, Instruments, and Devices (4) | EE 529 Optics (4) |
| AME 508 Machine Learning and Computational Physics (4) | EE 540 Introduction to Quantum Electronics (4) | EE 566 Optical Information Processing (4) |
| | EE 578 Computational Electromagnetics for Engineers (4) | |
| (8 units total) | (12 units total) | (8 units total) |

Mechanics of Fluid and Solid Media

| Semester 1 (Fall) | Semester 2 (Spring) | Semester 3 (Fall) |
|---|--|--|
| EE 604 Analytical and Algorithmic Methods of Applied Physics (4) | AME 506 Continuum Mechanics (4) | AME 515 Advanced Heat and Mass Diffusion (4) |
| AME 508 Machine Learning and Computational Physics (4) | AME 530a Dynamics of Incompressible Fluids (4) | AME 522 Non-Linear Dynamical Systems, Vibrations, and Chaos (4) |
| | EE 530 Optical Materials, Instruments, and Devices (4) | |
| (8 units total) | (12 units total) | (8 units total) |