Theoretical and Applied Mechanics
Core and Breadth Courses

Core Courses (16 hours)

- TAM 541 Mathematical Methods I
- TAM 542 Mathematical Methods II
- TAM 531 or TAM 532 – Inviscid Flow or Viscous Flow
- TAM 551 Solid Mechanics I

Breadth Courses (16 hours)

Solid Mechanics, Fluid Mechanics, Engineering Science and Applied Mathematics
(at least 2 courses from options below)

**Fluid Mechanics**
- TAM 531 Inviscid Flow
- TAM 532 Viscous Flow
- TAM 536 Instability and Transition
- TAM 538 Turbulence

**Solid Mechanics**
- TAM 552 Solid Mechanics II
- TAM 554 Plasticity
- TAM 555 Fracture Mechanics

**Engineering Science and Applied Mathematics**
- TAM 514 Elastodynamics and Vibrations
- TAM 515 Advanced Physical Acoustics
- TAM 518 Wave Motion
- TAM 545 Advanced Continuum Mechanics
- TAM 549 Asymptotic Methods

Mechanics of Materials
(at least 1 course from options below)

- TAM 424 Mechanics of Structural Metals
- TAM 427 Mechanics of Polymers
- TAM 428 Mechanics of Composites
- TAM 524 Micromechanics of Materials
- TAM 525 Advanced Composite Materials
- TAM 526 Composites Manufacturing

Computational and Experimental Mechanics
(at least 1 course from options below)

**Computational Mechanics**
- TAM 470 Computational Mechanics
- TAM 570 Computational Fluid Mechanics
- TAM 574 Advanced Finite Element Methods

**Experimental Mechanics**
- TAM 456 Experimental Stress Analysis
- TAM 537 Experimental Fluid Mechanics