

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, Computational and Experimental Mechanics (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 516 Dynamical Systems Theory
TAM 518 Wave Motion
TAM 545 Advanced Continuum Mechanics
TAM 549 Asymptotic Methods
TAM 557 Mechanics of Random Media

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

