

Elective Courses

Fall Course Offerings:

Code	Title	Credits
E C E 717	Linear Systems	3
E M A 506	Advanced Mechanics of Materials I	3
E M A 521	Aerodynamics	3
E M A 524	Rocket Propulsion	3
E M A/M S & E 541	Heterogeneous and Multiphase Materials	3
E M A 605	Introduction to Finite Elements	3
E M A 622	Mechanics of Continua	3
E M A/M E 703	Plasticity Theory and Physics	3
E P/E M A 547	Engineering Analysis I	3
M E 440	Intermediate Vibrations	3
M E/E M A 540	Experimental Vibration and Dynamic System Analysis	3
M E/E M A 570	Experimental Mechanics	3
M E 573	Computational Fluid Dynamics	3

Spring Course Offerings:

Code	Title	Credits
E M A 522	Aerodynamics Lab	3
E M A 523	Flight Dynamics and Control	3
E M A/ASTRON 550	Astrodynamics	3
E M A/M E 570	Experimental Mechanics	3
E M A 610	Structural Finite Element Model Validation	3
E M A 611	Advanced Mechanical Testing of Materials	3
E M A 630	Viscoelastic Solids	3
E M A 642	Satellite Dynamics	3
E M A 705	Advanced Topics in Finite Elements	3
E M A 747	Nonlinear and Random Mechanical Vibrations	3
M E 563	Intermediate Fluid Dynamics	3
M E 569	Applied Combustion	3
M E 572	Intermediate Gas Dynamics	3
M E 769	Combustion Processes	3
M E 775	Turbulent Heat and Momentum Transfer	3

Fall/Spring Course Offerings (offering varies):

Code	Title	Credits
E M A 700	Theory of Elasticity	3
MATH 705	Mathematical Fluid Dynamics	3
M E/N E 520	Two-Phase Flow and Heat Transfer	3
M E 545	Fluid Power	3
M E 561	Intermediate Thermodynamics	3
M E 564	Heat Transfer	3
M E 761	Topics in Thermodynamics	3
M E 764	Advanced Heat Transfer I-Conduction	3
M E 770	Advanced Experimental Instrumentation	3
M E 774	Chem Kinetics of Combust Systems	3