

EGM: Engineering Science Courses

Courses

EGM 2500 Engineering Mechanics-Statics

College of Sci and Engineering, Department of Mechanical Engineering

3 sh (may not be repeated for credit)

Prerequisite: MAC 2311 AND PHY 2048

Covers basic aspects of reduction of force systems, equilibrium of particles and rigid bodies, vector methods, and application to structures and mechanisms.

EGM 3344 Numerical Methods

College of Sci and Engineering, Department of Mechanical Engineering

3 sh (may not be repeated for credit)

Prerequisite: (MAP 2302*) AND (EEL 4834 OR COP 2253 OR COP 2334 OR COP 2830 OR COP 3014)

Programming fundamentals, interpolation, curve fitting, optimization, computations with series, numerical integration, and the numerical solution of algebraic, transcendental, simultaneous and differential equations. Transient students taking this course just need any programming course with a grade of C- or better to meet the prerequisites.

EGM 3401 Engineering Mechanics-Dynamics

College of Sci and Engineering, Department of Mechanical Engineering

3 sh (may not be repeated for credit)

Prerequisite: EGM 2500 AND MAC 2311

Dynamics of particles and rigid bodies for rectilinear translation, curvilinear motion, rotation and plane motion. Principles of work and energy, impulse and momentum.

EGM 4313 Intermediate Engineering Analysis

College of Sci and Engineering, Department of Electrical & Computer Engineer

3 sh (may not be repeated for credit)

Prerequisite: MAC 2313 AND MAP 2302*

Engineering applications of linear algebra, vector differential, calculus (including the concepts of gradient, divergence, and curl), complex variables (and functions of complex variables), and fourier series and transforms. Engineering applications of statistics.

* This course may be taken prior to or during the same term.