EGEN - General Engineering

EGEN 201. Engineering Mechanics—Statics. 3 Credits. (3 Lec) ES, Su On Demand. PREREQUISITE: PHSX 220 or PHSX 240. COREQUISITE: M 273Q or M 283Q. Equilibrium of particles and rigid bodies; static analysis of structures including trusses, beams, frames and machines; coulomb friction; area and mass centroids, moments and products of inertia.

Term | CRN | Section | Session/Dates | Days | Location | Time
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2020 Summer Semester | 10497 | 801 | May-start: 4x4 | - | - | -
2020 Summer Semester | 10183 | 001 | May-start: 4x4 | MTWR | ROBERT 312 | 11:00am - 1:35pm

EGEN 202. Engineering Mechanics -- Dynamics. 3 Credits. (3 Lec) ES, Su On Demand. PREREQUISITE: EGEN 201 or EGEN 221 and M 273Q or M 283Q. Kinematics, kinetics, work-energy, and impulse-momentum for particles and rigid bodies.

Term | CRN | Section | Session/Dates | Days | Location | Time
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2020 Summer Semester | 10498 | 801 | June-start: 4x4 | - | - | -
2020 Summer Semester | 11334 | 001 | May-start: 4x4 | MTWR | ROBERT 312 | 8:00am - 10:35am
2020 Summer Semester | 11366 | 0 | May-start: 4x4 | MTWR | ROBERT 312 | 8:00am - 10:35am

EGEN 205. Mechanics of Materials. 3 Credits. (3 Lec) Su On Demand. PREREQUISITE: EGEN 201 or EGEN 221 and M 273Q or M 283Q. Stress and strain, Hook's Law, thermal strain, torsion, bending of beams, combined stress, limit analysis, energy methods, virtual work, column theory.

Term | CRN | Section | Session/Dates | Days | Location | Time
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2020 Summer Semester | 10328 | 001 | May-start: 4x4 | MTWR | ROBERT 312 | 8:00am - 10:35am
2020 Summer Semester | 10499 | 801 | May-start: 4x4 | MTWR | ROBERT 312 | 8:00am - 10:35am

EGEN 310R. Multidisciplinary Engineering Design. 3 Credits. (3 Lec) ES. PREREQUISITE: Junior standing in an Engineering curriculum or consent of instructor. Introduces engineering students to topics such as design process, creative design, project management, teamwork, and technical leadership while highlighting the skills needed to work in a multi-disciplinary environment.

Term | CRN | Section | Session/Dates | Days | Location | Time
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2020 Summer Semester | 10632 | 001 | May-start: 4x4 | MTWR | NAH 149 | 11:00am - 1:35pm

EGEN 330. Business Fundamentals for Technical Professionals. 3 Credits. (3 Lec) ES, Su. PREREQUISITES: Junior Standing; and M 171Q or M 165Q. Basic business topics for engineers and other technical professionals. Introduces key topics related to financial statements, accounting practices, ethics, and evaluation of capital investment alternatives including present worth, rate of return, and after-tax analysis methods.

Term | CRN | Section | Session/Dates | Days | Location | Time
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2020 Summer Semester | 10915 | 001 | May-start: 4x4 | MTWR | ROBERT 301 | 9:00am - 10:45am

EGEN 335. Fluid Mechanics. 3 Credits. (3 Lec) ES, Su. PREREQUISITE: EGEN 202, EGEN 205. Introduction to modern fluid mechanics.

Term | CRN | Section | Session/Dates | Days | Location | Time
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2020 Summer Semester | 10778 | 801 | First Half | Session | - | -
2020 Summer Semester | 11335 | 001 | First Half | Session | - | -

EGEN 350. Applied Engineering Data Analysis. 2 Credits. (2 Lec) ES, Su. PREREQUISITE: M 166Q or M 172Q. An overview of data variability and applied statistical analysis techniques for a broad range of engineering disciplines. Topics include fundamentals of probability, essential probability distributions, hypothesis testing, experimental design strategies, and regression in the context of engineering applications. Evening exams required. Common final.

Term | CRN | Section | Session/Dates | Days | Location | Time
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2020 Summer Semester | 10203 | 001 | May-start: 4x4 | MTWR | NAH 153 | 9:00am - 10:45am

EGEN 351. Thy Magnetic Resonance Imag I. 3 Credits. (3 Lec) ES. PREREQUISITE: Graduate standing, or consent of instructor. Advanced topics in NMR phenomena including relaxation, diffusion, chemical shift, and magnetic susceptibility, as well as experimental aspects including phase cycling, magnetic field gradients, rf coil, tuning and matching and pulse sequence development will be covered.