

EGN: Engineering: General Courses

Courses

EGN 2911L Sophomore Engineering Design I
1 sh (may not be repeated for credit)
Prerequisite: MAC 2311

First course in a sophomore engineering design sequence. Students work in teams with other engineering design students in an active, discovery based learning environment employing practice based learning.

EGN 2912L Sophomore Engineering Design II
1 sh (may not be repeated for credit)
Prerequisite: EGN 2911L

Second course in a sophomore engineering design sequence. Students work in teams with other engineering design students in an active, discovery based learning environment employing practice based learning.

EGN 3204 Engineering Software Tools
1 sh (may not be repeated for credit)
Prerequisite: MAC 2312

Gives students an introduction to important Engineering software tools such as MATLAB, Labview, MATHCAD, and FSPICE.

EGN 3365 Engineering Materials
3 sh (may not be repeated for credit)
Prerequisite: (MAC 2311) AND (CHM 1045 OR CHM 2045 OR CHM 1045C)

Fundamentals in structure, properties, and mechanical behavior of engineering materials.

EGN 3613 Principles of Engineering Economy
3 sh (may not be repeated for credit)
Prerequisite: MAC 2311

Provides students with a broad-based understanding of finance, cash flow, and economic decision making practices. Addresses the principles and techniques needed for making economic decisions about building systems and subsystems. Explores decision making techniques pertaining to cost and value engineering. Emphasis will be placed on the time-value of money and equivalence, replacement analysis, uncertainty and life cycle costing.

EGN 3913L Junior Engineering Design I
1 sh (may not be repeated for credit)
Prerequisite: (EGN 2912L AND MAC 2313 AND PHY 2048) OR PHY 2048C

First course in a junior engineering design sequence. Students work in teams with other engineering design students in an active, discovery based learning environment employing practice based learning. This course may be a continuation of the project from the Sophomore Engineering Design, or may be a starting point for Juniors who are new to the program (Students without Sophomore Engineering Design must receive permission from their adviser).

EGN 3914L Junior Engineering Design II
1 sh (may be repeated for up to 4 sh of credit)
Prerequisite: EGN 3913L

Continuation of a Junior engineering design sequence. Students work in teams with other engineering design students in an active, discovery based learning environment employing practice based learning. This course is repeatable for elective credit with permission of the instructor.

EGN 4950 Capstone Design I
1 sh (may not be repeated for credit)

Preliminary work on senior design project. This portion of the senior design will focus on the objectives and criteria, synthesis, and analysis elements of project development. After developing design concepts, researching for implementation methods, and performing a feasibility study (which will include economic, social, ethical, etc., factors), the semester will culminate with a senior design project proposal and presentation.

EGN 4952L Capstone Design II
2 sh (may not be repeated for credit)
Prerequisite: EGN 4950

Continuation of Capstone Design I, with emphasis on construction, testing, and evaluation elements of project development. Material and Supply fee will be assessed. Permission is required.