

ESG 375: Fundamentals of Professional Engineering (Required)

Course Catalog description:

The course provides an overview of professional licensure and focuses on the general fundamentals of the engineering exam. Students take a practice exam for both the general exam and in-depth general exam option and review the results.

1 credit

Pre- or Corequisite(s): U3 or U4 standing

Text(s) or other required material:

Barrons Review Guide to the F.E. Exam, latest edition

Course learning outcomes:

Students briefly review areas on FE Exam

Students will take one practice exam

Students will review their performance on the general practice F.E. Exam

Topics Covered:

Week 1.	Overview of professional licensure and the F.E. Exam, Math 1
Week 2.	Overview of math 2
Week 3.	Overview of chemistry and biology
Week 4.	Overview of Statics
Week 5.	Overview of dynamics
Week 6.	Overview of fluid mechanics and dynamics
Week 7.	Overview of thermodynamics
Week 8.	Overview of heat exchange
Week 9.	Overview of electrical circuits, AC/DC
Week 10.	Overview of mechanics of materials
Week 11.	Overview of structure of matter
Week 12.	Overview of engineering economics
Week 13.	Overview of ethics and misc. topics

Class/ Laboratory Schedule, i.e. number of sessions each week and duration of each session:

ESG	375	Fund. of Professional Engineering	TUT	T01	TU	8:30 PM	9:30 PM
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Contribution of Course to **meet requirement of Criterion 5:**

ability to apply knowledge of math, engineering, and science (50%); ability to identify, formulate, and solve engineering problems (20%); understanding of professional and ethical responsibility (15%); ability to communicate effectively (10%); ability to use techniques, skills, and tools in engineering practice (5%)

Relationship of course to program outcomes:

Person(s) who prepared this description and date of preparation: