ESG 375: FUNDAMENTALS OF PROFESSIONAL ENGINEERING (REQUIRED)
Credit: 1

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.

PRE- OR COREQUISITE(S): U3 or U4 standing

TEXT(S) OR OTHER REQUIRED MATERIAL: FE Review Manual,...,Michael R Lindeburg, PE latest edition

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<th>COURSE LEARNING OUTCOMES</th>
<th>SOS</th>
<th>ASSESSMENT TOOLS</th>
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<tr>
<td>Students briefly review areas on FE Exam</td>
<td>a,e,i</td>
<td>Weekly quiz of relevant topic</td>
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<tr>
<td>Students will take one midterm exam</td>
<td>a,e,i</td>
<td>Review topics, math, chem. statics</td>
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<tr>
<td>Students will review their performance on the general practice F.E. Exam</td>
<td>a,e,i</td>
<td>Final exam, 60FE questions</td>
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COURSE TOPICS:
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

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<tr>
<th>ESG</th>
<th>375</th>
<th>Fund. of Professional Engineering</th>
<th>TUT</th>
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CURRICULUM
This course contributes 1 credit hour toward meeting the required 48 hours of engineering topics.
**STUDENT OUTCOMES (SCALE 1-3):**

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3 – Strongly supported 2 – Supported 1- Minimally supported

**LEAD COORDINATOR(S) WHO PREPARED THIS DESCRIPTION AND DATE OF PREPARATION:**

Frank Szalajda, PE 5-27-2010