A. CATALOG COURSE DESCRIPTION
ENGR 4201 — Fundamentals of Engineering (1). A course designed to prepare students for the Engineering-in-Training (EIT)/Fundamentals of Engineering (FE) Examination, which is a partial requirement for obtaining a Professional Engineer (PE) license. Prerequisite: Senior Standing.

B. COURSE OBJECTIVE
This course is designed to achieve the following objectives:

1. To prepare students to pass the FE examination.
2. To familiarize students with the FE format.
3. To bring together all the basic concepts that have been studied by the students.
4. To present these concepts in a systematic way that stresses their interrelationships.

C. PREREQUISITES/CO-REQUISITES
The prerequisites are: Senior standing and taking the EIT class one semester prior to graduation. The student not meeting these requirements will be dropped from this class.

D. COMPETENCIES

1. The student will have sharper test taking skills and familiarity with the format of the FE Examination.
2. The student will have a better understanding of the functional relationships between mathematics, science, and engineering science concepts.

E. ADDITIONAL INFORMATION
Meeting Time/Days: Tuesday 5:30 PM - 7:25 PM
Location: Torrence Hall, Room 112

Required Materials:

3. Scientific calculator [See the NCEES Calculator policy]
References:


Important Class Resources and Reference Material:

[www.ecoccs.com/tsuteach.html](http://www.ecoccs.com/tsuteach.html)

STEM Resources for Tennessee State University (TSU) students and faculty provided by Irucka Embry

Link for the ENGR 4201 course:

[www.ecoccs.com/tsuteach.html#engr4201_res](http://www.ecoccs.com/tsuteach.html#engr4201_res)

Fundamentals of Engineering Training (ENGR 4201)

**F. POLICY ON EXCESSIVE ABSENCES**

Students are expected to attend classes regularly. The Policy on Excessive Absences as stated in the latest edition of the TSU Undergraduate Catalog will be enforced. No student will be allowed to have more than 2 absences.

**G. TEST AND EVALUATION**

Performance in the course will be determined by the following:

- Final Exam 85%
- Homework 5%
- Quizzes 10%

<table>
<thead>
<tr>
<th>GRADE</th>
<th>SCORE RANGE</th>
<th>SIGNIFICANCE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pass</td>
<td>&gt; 70%</td>
<td>Satisfactory Performance</td>
</tr>
<tr>
<td>Fail</td>
<td>&lt; 70%</td>
<td>Unsatisfactory Performance</td>
</tr>
</tbody>
</table>

**H. Instructor**

Irucka Embry, E.I.T.

**I. Office Hours**

By appointment only

**J. Office**

**Telephone:** (615) 713-7094

**email:** iruckaE@mail2world.com

**K. Class meeting times:**

Tuesday 5:30 PM - 7:25 PM - Torrence Hall, Room 112
L. DETAILED SCHEDULE

<table>
<thead>
<tr>
<th>Dates</th>
<th>Topics</th>
</tr>
</thead>
<tbody>
<tr>
<td>15-Jan</td>
<td>Introduction to the EIT/FE Exam, Test Taking Strategies, Initial Assessment</td>
</tr>
<tr>
<td>22-Jan</td>
<td>Transportation Engineering - Conference</td>
</tr>
<tr>
<td>29-Jan</td>
<td>Ethics and Professional Practice</td>
</tr>
<tr>
<td>05-Feb</td>
<td>Mathematics &amp; Probability and Statistics &amp; Computational Tools</td>
</tr>
<tr>
<td>12-Feb</td>
<td>Engineering Economics</td>
</tr>
<tr>
<td>19-Feb</td>
<td>Statics &amp; Mechanics of Materials</td>
</tr>
<tr>
<td>26-Feb</td>
<td>Dynamics</td>
</tr>
<tr>
<td>05-Mar</td>
<td>Spring Break</td>
</tr>
<tr>
<td>12-Mar</td>
<td>Materials</td>
</tr>
<tr>
<td>19-Mar</td>
<td>Fluid Mechanics</td>
</tr>
<tr>
<td>26-Mar</td>
<td>Hydraulics and Hydrologic Systems</td>
</tr>
<tr>
<td>02-Apr</td>
<td>Environmental Engineering</td>
</tr>
<tr>
<td>09-Apr</td>
<td>Structural Analysis/Structural Design</td>
</tr>
<tr>
<td>16-Apr</td>
<td>Geotechnical Engineering &amp; Construction Surveying</td>
</tr>
<tr>
<td>23-Apr</td>
<td>Final Examination</td>
</tr>
</tbody>
</table>

POLICIES

See current Catalog for policies and student handbook, including the policy on absences, cheating, and plagiarism.

DISABILITY ACCOMMODATION STATEMENT

TSU is committed to creating inclusive learning environments and providing all students with opportunities to learn and excel in their course of study. Any student with a disability or condition which might interfere with his/her class performance or attendance may arrange for reasonable accommodations by visiting the Office of Disability Services (ODS). ODS is located in Kean Hall, room 131 and can be reached at 615-963-7400 or http://www.tnstate.edu/disabilityservices. You will be required to speak with ODS staff and provide documentation of the need for an accommodation. If you qualify for an accommodation you will be provided with a document stating what type of classroom accommodations are to be made by the instructor. It is your responsibility to give a copy of this document to the instructor as soon as you receive it. Accommodations will only be provided AFTER the instructor receives the accommodation instructions from ODS; accommodations are not retroactive. You must follow this process for each semester that you require accommodations.

SEXUAL MISCONDUCT, DOMESTIC/DATING VIOLENCE, STALKING

TSU recognizes the importance of providing an environment free of all forms of discrimination and sexual harassment, including sexual assault, domestic violence, dating violence, and stalking. If you (or someone you know) has experienced or is experiencing any of these incidents, there are resources to assist you in the areas of accessing health and counseling services, providing academic and housing accommodations, and making referrals for assistance with legal protective orders and more.

Please be aware that most TSU employees, including faculty and instructors, are “responsible employees”, meaning that they are required to report incidents of sexual violence, domestic/dating
violence or stalking. **This means that if you tell me about a situation involving sexual harassment, sexual assault, dating violence, domestic violence, or stalking, I must report the information to the Title IX Coordinator.** Although I have to report the situation, you will still have options about how your situation will be handled, including whether or not you wish to pursue a formal complaint. Our goal is to make sure you are aware of the range of options available to you and have access to the resources you need.

You are encouraged to contact TSU’s Title IX Coordinator to report any incidents of sexual harassment, sexual violence, domestic/dating violence or stalking. The Title IX coordinator is located in the Office of Equity and Inclusion, McWherter Administration Building, Ste. 260 and can be reached at 615-963-7494 or 615-963-7438. For more information about Title IX and TSU’s SART or policies and procedures regarding sexual, domestic/dating violence and stalking please visit: http://www.tnstate.edu/equity.

If you wish to speak to someone confidentially, who is not required to report, you can contact the TSU Counseling Center, located in the basement of Wilson Hall, at 615-963-5611 or TSU Student Health Services, located in the Floyd Payne Campus Center room 304, at 615-963-5084. You may also contact the following off campus resources: Sexual Assault Center of Nashville at 1-800-879-1999 or http://www.sacenter.org or the Tennessee Coalition to End Domestic & Sexual Violence at 615-386-9406 or http://www.tncoalition.org.

**HARASSMENT & DISCRIMINATION**

Tennessee State University is firmly committed to compliance with all federal, state and local laws that prohibit harassment and discrimination based on race, color, national origin, gender, age, disability, religion, retaliation, veteran status and other protected categories. TSU will not subject any student to discrimination or harassment and no student shall be excluded from participation in nor denied the benefits of any educational program based on their protected class. If a student believes they have been discriminated against or harassed because of a protected class, they are encouraged to contact the Office of Equity and Inclusion at McWherter Administration Building, Ste. 260, 615-963-7494 or 615-963-7438, http://www.tnstate.edu/equity.