

The University of Texas at Tyler
Department of Electrical Engineering

Course: EENG 5337 – Semiconductor Devices (Elective)

Syllabus

Catalog Description:

This course is an extension of models and principles of semiconductors developed in a prior introductory level class. The instructor can select from a number of advanced topics. These can include but not limited to concentrated coverage for device processing, electrical characterization for solar cells, four terminal devices and modeling organic semiconductor based diodes and transistors.

Prerequisites: EENG4330 or CI

Credits: (3 hours lecture, 0 hours laboratory per week)

Text(s): Depends on specific Topic selected

Additional Material: None indicated

Course Coordinator: Ron Pieper

Topics Covered: (paragraph of topics separated by semicolons)

Specific details depends on the instructor selected topics

Evaluation Methods: (only items in dark print apply):

1. Examinations / Quizzes
2. Homework
3. Report
4. Computer Programming
5. Project
6. Presentation
7. Course Participation
8. Peer Review

Course Objectives¹: By the end of this course students will be able to:

1. To be determined (TBD)
2. TBD
3. TBD

¹Numbers in brackets refer to method(s) used to evaluate the course objective.

Relationship to Program Outcomes (only items in dark print apply)²: This course supports the following Electrical Engineering Program Outcomes, which state that our students will:

1. Possess a breadth and depth of knowledge in electrical and computer engineering: Students will possess and be able to apply knowledge and principles at a graduate level in two or more of the following areas utilizing modern engineering tools: electronics, power systems, controls, advanced engineering mathematics, signal processing, communications, real-time systems, computer systems, electromagnetic

and power electronics;

2. Possess and demonstrate oral and written communication skills: Students will be adequately prepared for entrance into advanced careers or into a doctoral program through reports, papers, publications or presentations;
3. Demonstrate the capability to perform independent learning and investigation: Students will successfully address electrical or computer engineering problems through independent research activity in coursework or a thesis;

²Numbers in brackets refer to course objective(s) that address the Program Outcome.

Contribution to Meeting Professional Component: (in semester hours)

Mathematics and Basic Sciences:	2	hours
Engineering Sciences and Design:	1	hours
General Education Component:	0	hours

Prepared By: Ron Pieper

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