

Semiconductor Optoelectronics Devices - Course Syllabus

Course Number: EE 208

Course Title: Semiconductor Optoelectronics Devices

Academic Semester: Spring **Academic Year:** 2015/ 2016
Semester Start Date: Jan, 24, 2016 **Semester End Date:** May, 19, 2016

Class Schedule: Sunday and Tuesday, 2:30pm

Classroom Number:

Instructor(s) Name(s): Jr-Hau He
Email: jrhou.he@kaust.edu.sa

Teaching Assistant name:
Email:

Office Location: Room 3217, Building 3

COURSE DESCRIPTION FROM PROGRAM GUIDE

Materials for optoelectronics, optical processes in semiconductors, absorption and radiation, transition rates and carrier lifetime. Principles of LEDs, lasers, photodetectors, modulators and solar cells. Optoelectronic integrated circuits. Designs, demonstrations and projects related to optoelectronic device phenomena.

GOALS AND OBJECTIVES

Students will understand semiconductor materials and devices for optoelectronics in this course.

REQUIRED KNOWLEDGE

Fundamentals in semiconductor materials

REFERENCE TEXTS

“Optical Semiconductor Devices”, by Mitsuo Fukuda, ISBN: 978-0-471-14959-0, Wiley

“Optoelectronics and Photonics,” by S. O. Kasap, ISBN-13: 978-0201610871, Prentice Hall, 2001.

METHOD OF EVALUATION

Percentages %	Graded content (Assignments, Oral quizzes, Projects, Midterm exam, Final Exam, Attendance and participation, etc)
HOMEWORK: 20% EXAMS: 40% Labs: 40%.	

COURSE REQUIREMENTS

Assignments

Nature of the assignments (assigned reading, case study, paper presentation, group project, written assignment, etc)
paper presentation, group project, and written assignment,

Course Policies

Absences, Assignments, late work policy, etc.

Attendance Policy:

Students are required to attend class, and attendance will be taken if necessary. 3 absences are allowed for documented personal/medical reasons. Please email me in advance if you know you will miss a class.

However, on the exam dates listed in the course calendar, attendance is absolutely mandatory. No makeup exams will be given.

Cheating Policy and Penalty for Cheating:

Cheating is defined as "intentionally using or attempting to use, or intentionally providing or attempting to provide, unauthorized materials, information, or assistance in any academic exercise." This includes any group efforts on assignments or exams unless specifically approved by the professor for that assignment/exam. Evidence of fabrication or plagiarism will also result in downgrading for the course. Students who cheat on any assignment or during any examination will be assigned a failing grade for the course.

Feedback:

I as well as the KAUST value your feedback in how we can make this course better and better serve your needs.

- The standard KAUST course evaluations will also be given at the end of the term.
- We may have midterm teaching evaluations of the course sometime in the middle of the semester.
- Anonymous feedback can be posted anytime through blackboard.
- If you have any personal issues with the course, please come to office hours or setup an appointment to speak with me individually

NOTE

The instructor reserves the right to make changes to this syllabus as necessary.

