Sabancı University *Fall 2014*
EL 305

Optoelectronics

Instructor:	Meriç Özcan, FENS 1043, meric@sabanciuniv.edu
Office Hours:	After the class + anytime you see me around...
Teaching Asst:	Behzad Serdari , FENS 1067, behzadsardari@sabanciuniv.edu
Grading Policy:	Homeworks: 20 %, Midterm:35, % Final: 45 %
Lectures:	Mon: 10:40-12:30 FENS L063 and Thu: 11:40-12:30 FENS L035

Course Outline

- Wave nature of light, interference, diffraction theory.
- Optical waveguides, optical fiber transmission basics.
- Semiconductor theory, LED principles.
- Laser basics, semiconductor lasers.
- Photodetector theory.
- Phototovoltaic devices, solar cells.
- Optical modulation, electro-optic effect etc.

Textbook: **Optoelectronics and Photonics**, Prentice Hall, by S. O. Kasap

Additonal Readings:
Fundamentals of Photonics, by B. E. A. Saleh and M. C. Teich
Semiconductor Optoelectronic Devices, by P. Bhattacharya
Fundamentals of Optoelectronics, by C. R. Pollock

In addition, I will lecture on extra stuff here and there. This course is significantly different than the other electronics classes you had so far, therefore the attendance is important. I will collect attendance sheet. In recitation hours (FENS L030, Mon. 16:40-18:30) there will be demos and/or you will learn how to use the Optical equipment.