GEORGE MASON UNIVERSITY
ELECTRICAL AND COMPUTER ENGINEERING DEPARTMENT
SPRING 2017

ECE 565: INTRODUCTION TO OPTICAL ELECTRONICS

T 7:20 -10:00 pm – Engineering Building room # 1110

Instructor:  Dimitris Ioannou, ENG room # 3248, tel. 993-1580, dioannou@gmu.edu
Office Hours: T 6:00-7:00 pm; plus other times by appointment

Required Textbook: "OPTOELECTRONICS AND PHOTONICS: Principles and Practices”
by S.O. Kasap (Prentice Hall)
Recommended Textbook: “Optical Properties of Solids” by Mark Fox, Oxford University Press

COURSE OUTLINE
1. Wave Nature of Light (two weeks)
2. Dielectric Waveguides and Optical Fibers (two weeks)
3. Semiconductors: A “Resume” (two weeks)
4. Light Emitting Diodes (one week)

Midterm Exam: Tuesday, March 21th

5. Stimulated Emission: Optical Amplifiers (one week)
6. Stimulated Emission: Lasers (one week)
7. Photodetectors and Image Sensors (two weeks)
8. Polarization and Modulation of Light (two weeks)

Course Review
Final Exam: Thursday, May 11th, 7:20 – 10:15 pm

Grading
Homework -10%
Midterm - 40%
Final - 50%