UVic Department of Electrical and Computer Engineering

COURSE OUTLINE

ELEC 452 – Optical Communication Technology

Summer 2014

url: http://www.ece.uvic.ca/~taolu/elec452/elec452.html

Instructor:

Dr. Tao Lu
Phone: 250-721-8617
E-mail: taolu@ece.uvic.ca

Office Hours:

Days: Monday
Time:13:30-16:30
Location: EOW 321

Lectures:

A-Section(s): A01 / CRN 30313
Days: Monday/Thursday
Time: 11:30-12:50
Location: ECS 130

Labs:

B-Section(s)	Days	Time
B01	Friday	14:30-17:30
TA:	Jooshesh, Afshin	
email:	jooshesh@uvic.ca	

Location: ELW

Required Text:

Title: Optical Fiber Communications (4th edition)
Author: Gerd Keiser
Publisher: McGraw-Hill
Year: 2011

References:

Title: Fiber-optic Communication Systems
Author: Govind P. Agrawal
Publisher: John Wiley & Sons, Inc.
Year: 2002

Assessment:

Assignments:	15%	
Labs	20%	
Mid-term1	15%	Date: Thursday, May 29, 2014
Mid-term2	15%	Date: Thursday, June 26, 2014
Final	35%	

Note: Failure to complete all laboratory requirements will result in a grade of N being awarded for the course.

Due dates for assignments:

Two weeks after each assignment is handed out.

The final grade obtained from the above marking scheme will be based on the following percentage-to-grade point conversion:

Passing Grades	Grade Point Value	Percentage for Instructor Use Only	
A+ A A-	9 8 7	90 – 100 85 – 89 80 – 84	
B+ B B-	6 5 4	77 – 79 73 – 76 70 – 72	
C+ C	3 2	65 – 69 60 – 64	
D	1	50 – 59	
Failing Grades	**Grade Point Value**	**Percentage for Instructor Use Only**	**Description**
E	0	35 - 49	Fail, conditional supplemental exam. (For undergraduate courses only)
F	0	0 – 49	Fail, no supplemental.
N	0	0 – 49	Did not write examination, Lab or otherwise complete course requirements by the end of term or session; no supplemental exam.

The rules for supplemental examinations are found on page 80 of the current 2013/14 Undergraduate Calendar.

Term in which E Grade Was Obtained	Application Deadline for Supplemental Exam	Supplemental Exam Date
First term of Winter Session (Sept – Dec)	February 28 in the following term	First week of following May
Second term of Winter Session (Jan – Apr)	June 30 in the following term	First week of following September
Summer Session (May – Aug)	October 31 in the following term	First week of following January

Deferred exams will normally be written at the start of the student's next academic term; i.e., approximately 4 months following the deferral of the exam.

Course Description

1. Course Objectives

   Introduce the major components, topologies and their operational principles of optical communication systems.

2. Learning Outcomes

   Understand the wave propagation behavior in optical devices, be familiar with the functionality of each component and its applications, be able to perform simple modeling and simulation on optical components.

3. Syllabus

   Review of modern optics, fiber waveguiding theory, passive/active optical components such as laser sources, photo detectors, optical amplifiers, optical transmission systems, WDM, SONET, noises in optical communication systems and reduction techniques.

Note to Students:

Students who have issues with the conduct of the course should discuss them with the instructor first. If these discussions do not resolve the issue, then students should feel free to contact the ECE Chair by email or the ECE Chair's secretary to set up an appointment.

Accommodation of Religious Observance
See http://web.uvic.ca/calendar2014/GI/GUPo.html

Policy on Inclusivity and Diversity
See http://web.uvic.ca/calendar2014/GI/GUPo.html

Standards of Professional Behaviour

You are advised to read the Faculty of Engineering document Standards for Professional Behaviour at http://www.uvic.ca/engineering/current/undergrad/index.php#section0-25 which contains important information regarding conduct in courses, labs, and in the general use of facilities.

Cheating, plagiarism and other forms of academic fraud are taken very seriously by both the University and the Department. You should consult

http://web.uvic.ca/calendar2014/FACS/UnIn/UARe/PoAcI.html for the UVic policy on academic integrity.

Plagiarism detection software may be used to aid the instructor and/or TA's in the review and grading of some or all of the work you submit.