



### ELEC 452 – Optical Communication Technology

Term - Summer 2015 (201505)

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

#### Instructor

Dr. Tao Lu  
Phone: 250-721-8617  
E-mail: [taolu@uvic.ca](mailto:taolu@uvic.ca)

#### Office Hours

Days: Monday  
Time: 13:30-16:30  
Location: EOW321

#### Course Objectives

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

#### 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.

**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.

**A-Section(s):** A01/CRN 30341  
A02/CRN 30342  
Days: Monday/Thursday  
Time: 11:30-12:50  
Location: DSB C128

**B-Section(s)** Days Time  
B01 Friday 14:00-16:50  
TA: Ansari, Yaseen  
email: [yaseen@uvic.ca](mailto:yaseen@uvic.ca)

#### Required Text

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

#### Assessment:

Assignments: 20%  
Labs 20%  
Mid-term 20%  
Final 40%

Date: Thursday, June 18, 2015

**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 for the purpose of GPA calculation will be based on the percentage-to-grade point conversion table as listed in the current Undergraduate Calendar.

**There will be no supplemental examination for this course.**

**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 Chair of the Department by email or the Chair's Secretary to set up an appointment.

**Accommodation of Religious Observance**

<http://web.uvic.ca/calendar/GI/GUPo.html>

**Policy on Inclusivity and Diversity**

<http://web.uvic.ca/calendar/GI/GUPo.html>

**Standards of Professional Behaviour**

You are advised to read the Faculty of Engineering document Standards for Professional Behaviour in current Undergraduate Calendar, 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 entry in current Undergraduate Calendar for the UVic policy on academic integrity.

<http://www.uvic.ca/engineering/assets/docs/professional-behaviour.pdf>

**Course Lecture Notes**

Unless otherwise noted, all course materials supplied to students in this course have been prepared by the instructor and are intended for use in this course only. These materials are NOT to be re-circulated digitally, whether by email or by uploading or copying to websites, or to others not enrolled in this course. Violation of this policy may in some cases constitute a breach of academic integrity as defined in the UVic Calendar.