



CAMOSUN COLLEGE
Trades and Technology
Electronics and Computer Engineering

ELEN 120
Fiber Optic Cabling

W2020

COURSE OUTLINE

The calendar description is available on the web @ Camosun.ca

Please note: This outline will not be kept indefinitely. It is recommended students keep this outline for their records, especially to assist in transfer credit to post-secondary institutions.

1. Instructor Information

(a) Instructor	Gurbinder Dhade
(b) Office hours	_____
(c) Location	CBA 122B
(d) Phone	250-370-4450 Alternative: _____
(e) E-mail	dhadeg@camosun.bc.ca
(f) Website	camosun.ca

2. Intended Learning Outcomes

Fiber Optics cabling course introduces the student to fiber optics media and the associated concepts. This course follows the Fiber Optics Association (FOA) curriculum. Lab exercises will focus on the practical skills of Fiber Optic connector terminations and testing.

Upon successful completion of this course, a student will be able to:

- ✓ Describe the fundamentals of fiber optic communications;
- ✓ Describe the advantages and disadvantages of using optical fiber;
- ✓ Explain the theory of operation of optical fiber;
- ✓ Demonstrate various termination and splicing techniques observing appropriate safety precautions;
- ✓ Explain and demonstrate basic installation and troubleshooting techniques.

3. Required Materials

- a) There is no required text for this course. All the information is available online
- b) Access to FOA site (www.foa.org)
- c) Access Fiber Optic termination equipment
- d) Access to Camosun D2L online course materials as required
- e) Student File Share: \\elexsrv1\lelexpub\elen_120 or \\142.31.204.249\lelexpub\elen_120

4. Course Content

1. Introduction
2. Basic overview
3. The jargon and the technology
4. Fiber Optic Networks: basic applications and transmission systems
5. Fiber Optic Datalinks, Fiber Optic Transceivers for Datalinks
6. Optical Fiber
7. Termination and splicing Termination
 - Epoxy/Polish, Anaerobic, HotMelt Pre-Polished Splice termination
 - Singlemode and Multimode termination Splice VHO: Mech splice Fusion: single fiber ribbon
8. Fiber Optic Testing
 - Insertion loss testing
 - Interpret OTDR
9. Network Design
10. Installation
11. About Standards

5. Basis of Student Assessment (Weighting)

a) FOA Theoretical	10%
• Assignment Questions	5%
• Quizzes	5%
b) FOA Practical	30%
• Safety/Professionalism	
• Connector Terminations	
• Mechanical Splice	
• Fusion Splicing	
• Fiber Test sheets	
• OTDR Sheet	
c) CFOT Exam*	60%
Total	100%

*Must achieve 70% in the The Fiber Optic Association, Inc. (FOA) exam in order to receive FOA CFOT Certificate.

Please note the following:

1. A grade of 60% or better is required in all assessment categories above to be able to pass the course.
2. Attendance and punctuality is required.
3. A student is required to inform the instructor prior to being late or missing a class, or as soon as possible.

6. Grading System

- Standard Grading System (GPA)
- Competency Based Grading System

7. Recommended Materials or Services to Assist Students to Succeed Throughout the Course

LEARNING SUPPORT AND SERVICES FOR STUDENTS

There are a variety of services available for students to assist them throughout their learning. This information is available in the College Calendar, Student Services or the College web site at <http://www.camosun.bc.ca>

STUDENT CONDUCT POLICY

There is a Student Conduct Policy. It is the student's responsibility to become familiar with the content of this policy. The policy is available in each School Administration Office, Registration, and on the College web site in the Policy Section. <http://www.camosun.bc.ca/policies/policies.html>

A. GRADING SYSTEMS <http://www.camosun.bc.ca/policies/policies.php>

The following two grading systems are used at Camosun College:

1. Standard Grading System (GPA)

Percentage	Grade	Description	Grade Point Equivalency
90-100	A+		9
85-89	A		8
80-84	A-		7
77-79	B+		6
73-76	B		5
70-72	B-		4
65-69	C+		3
60-64	C		2
50-59	D		1
0-49	F	Minimum level has not been achieved.	0

2. Competency Based Grading System (Non GPA)

This grading system is based on satisfactory acquisition of defined skills or successful completion of the course learning outcomes

Grade	Description
COM	The student has met the goals, criteria, or competencies established for this course, practicum or field placement.
DST	The student has met and exceeded, above and beyond expectation, the goals, criteria, or competencies established for this course, practicum or field placement.
NC	The student has not met the goals, criteria or competencies established for this course, practicum or field placement.

B. Temporary Grades

Temporary grades are assigned for specific circumstances and will convert to a final grade according to the grading scheme being used in the course. See Grading Policy at <http://www.camosun.bc.ca/policies/E-1.5.pdf> for information on conversion to final grades, and for additional information on student record and transcript notations.

Temporary Grade	Description
I	<i>Incomplete</i> : A temporary grade assigned when the requirements of a course have not yet been completed due to hardship or extenuating circumstances, such as illness or death in the family.
IP	<i>In progress</i> : A temporary grade assigned for courses that are designed to have an anticipated enrollment that extends beyond one term. No more than two IP grades will be assigned for the same course.

CW	<i>Compulsory Withdrawal:</i> A temporary grade assigned by a Dean when an instructor, after documenting the prescriptive strategies applied and consulting with peers, deems that a student is unsafe to self or others and must be removed from the lab, practicum, worksite, or field placement.
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