



CAMOSUN COLLEGE
Trades and Technology
Electronics and Computer Engineering

ELEN 120
Fiber Optic Cabling

Fall-2018

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	Phil Vreugdenhil
(b) Office hours	_____
(c) Location	CBA 122A
(d) Phone	4622 Alternative: _____
(e) E-mail	VreugdenhilP@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

- There is no required text for this course. All the information is available online
- Access to FOA site (www.foa.org)
- Access Fiber Optic termination equipment
- Access to Camosun D2L online course materials as required
- Student File Share: TBD

4. Course Content & Schedule

- 12-10-2018 → 12-14-2018
 - Laboratory Mon – Fri @ 08:30AM - 12:20PM, Centre Business & Access Bldg, Room 124
- 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, Hot Melt Pre-Polished Splice termination
 - Singlemode 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) Lab Practical	40%
• Safety	
• Professionalism	
• Connector Terminations	
• Mechanical Splice	
• Fusion Splicing	
• Fiber Test sheets	
• OTDR Sheet	
b) 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)

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

The following two grading systems are used at Camosun College:

I. 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

II. 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.

7. College Supports, Services and Policies



Immediate, Urgent, or Emergency Support

If you or someone you know requires immediate, urgent, or emergency support (e.g. illness, injury, thoughts of suicide, sexual assault, etc.), **SEEK HELP**. Resource contacts @ <http://camosun.ca/about/mental-health/emergency.html> or <http://camosun.ca/services/sexual-violence/get-support.html#urgent>

College Services

Camosun offers a variety of health and academic support services, including counselling, dental, disability resource centre, help centre, learning skills, sexual violence support & education, library, and writing centre. For more information on each of these services, visit the **STUDENT SERVICES** link on the College website at <http://camosun.ca/>

College Policies

Camosun strives to provide clear, transparent, and easily accessible policies that exemplify the college's commitment to life-changing learning. It is the student's responsibility to become familiar with the content of College policies. Policies are available on the College website at <http://camosun.ca/about/policies/>. Education and academic policies include, but are not limited to, Academic Progress, Admission, Course Withdrawals, Standards for Awarding Credentials, Involuntary Health and Safety Leave of Absence, Prior Learning Assessment, Medical/Compassionate Withdrawal, Sexual Violence and Misconduct, Student Ancillary Fees, Student Appeals, Student Conduct, and Student Penalties and Fines.