

CAMOSUN COLLEGE
School of Trades and Technology
Department of Computer Science

ICS 228 – Computer Ethics and Security
Fall 2018

COURSE OUTLINE

The calendar description is available on the web @

camosun.ca/learn/calendar/current/web/comp.html

Ω 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	Michael Y Liu
(b) Office hours	By Appointment
(c) Location	Technology Building 255
(d) Phone	250-370-4461 Alternative: N/A
(e) E-mail	LiuM@camosun.bc.ca
(f) Website	D2L

2. Intended Learning Outcomes

At the end of this course, students will be able to:

- Compare various ethical theories that form the basis of solutions in different areas of computing (Weeks 1, 14)
- Compare and contrast professional codes of ethics related to computing, discussing their commonalities, differences, and implications (Weeks 2, 14)
- Describe the process of conducting penetration tests and use a variety of tools to perform them (Weeks 8 - 14, Labs)
- Identify security vulnerabilities in software and networks and implement solutions to solve these vulnerabilities (Weeks 4 - 14, Labs)
- Investigate and mitigate data risk (Weeks 3 - 14, Labs)
- Identify social and ethical issues that arise in the development and implementation of applications to prevent vulnerabilities in software (Weeks 2, 4 - 6, 8 - 14)

Week numbers relate to the schedule listed in *Course Content and Schedule* below.

3. Required Materials

(a) Texts

Wm. Arthur Conklin and Greg White, *Principles of Computer Security: CompTIA Security+ and Beyond*, 5th Edition, McGraw-Hill, 2018

(b) Other

ICS 228 Lab Manual

4. Course Content and Schedule

Week 01: (Labour Day); Introduction to Security; Ethical Systems; Labs start!

Week 02: Professional Ethics, Intellectual Property, Privacy, and Cybercrime; Perimeter Lab due

Week 03: Security Principles; Professional Ethics Quiz; Services Lab due

Week 04: Security Contingency Planning and Policies; Monitoring Lab due

Week 05: Cryptography, Systems Hardening Lab due

Week 06: (Thanksgiving Day); Authentication and Authorization

Week 07: Malware, Vulnerabilities Lab due

Week 08: Host Security; Risks 1 Lab due

Week 09: Host Security (Cont'd); Risks 2 Lab due

Week 10: Network Security; Risks 3 Lab due

Week 11: (Remembrance Day); Network Security (Cont'd)

Week 12: Application Security; Risks 4 Lab due

Week 13: Incident Response and Forensics

Week 14: Review; Comprehensive Lab due

Final Exam Date: TBA

This schedule is subject to change.

This course is designed to raise your awareness of security

Following the instructions in this course does NOT guarantee that you won't be hacked!

5. Basis of Student Assessment (Weighting)

(a) Assignments

Lab + Home Components 15%

Must complete ALL labs to pass the course

(b) Quizzes

Quizzes 30%

Must achieve 100% on the Ethics quiz to pass the course (3 tries)

Must pass the quiz portion to pass the course

(c) Exams

Final Exam 50%

Must pass the final to pass the course

(d) Other (e.g. Project, Attendance, Group Work)

Lab Participation (Attendance and Punctuality, Presence of Lab Manual and Pi, No Food or

Uncovered Drink) 5%

Late work will not be accepted, except by the instructor's prior written permission or in the presence of a dire and documented short-term medical or family emergency. Mark appeals must be made within 7 days of the mark being posted.

6. Grading System

(If any changes are made to this part, then the Approved Course description must also be changed and sent through the approval process.)

(Mark with "X" in box below to show appropriate approved grading system – see last page of this template.)

Standard Grading System (GPA)

Competency Based Grading System

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

N/A

8. 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.

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
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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.