CAMOSUN COLLEGE
Trades and Technology
Computer Science

ICS228 Computer Ethics and Security
Fall 2020

COURSE OUTLINE

The calendar description is available on the web @

http://camosun.ca/learn/calendar/current/web/ics.html#ICS228

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	11:30 -12:30 PM Tuesday/Wednesday/Friday	
(c) Location	Online / Technology Building 263	
(d) Phone N/A		**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.
- Compare and contrast professional codes of ethics related to computing, discussing their commonalities, differences, and implications.
- Describe the process of conducting penetration tests and use a variety of tools to perform them.
- Identify security vulnerabilities in software and networks and implement solutions to solve these vulnerabilities.
- Investigate and mitigate data risk.

- Identify social and ethical issues that arise in the development and implementation of applications to prevent vulnerabilities in software.

3. Required Materials

(a) Texts (**Optional**)
John Warsinske (Author), Kevin Henry (Author), Mark Graff (Author), & 8 more, *The Official (ISC)2 Guide to the CISSP CBK Reference,* Fifth Edition

(b) Other (**Mandatory**)
ICS 228 Lab Manual (2020 Version), available in Camosun library.

4. Course Content and Schedule

Week 01 (Sep07-11): No Lecture as conflicts with Labor Day, Lab Preparation;
Week 02 (Sep14-18): Course Introduction, Ethical Systems, Code of Ethics, Introduction to Information Security; Lab 1 Starts;
Week 03 (Sep21-25): General Security Principles and Models; Lab1 Due, Lab2 Starts;
Week 04 (Sep28-Oct02): Cryptographic Systems; Quiz 1 due; Lab2 due, Lab3 starts;
Week 05 (Oct05-09): Cryptographic Applications; Lab3 continues;
Week 06 (Oct12-16): Identification, Authentication, Authorization, and Accountability; Quiz 2 due; Lab3 Due, Lab4 Starts;
Week 07 (Oct19-23): Enterprise Access Control - IDM Systems; Lab4 due, Lab5 Starts;
Week 08: (Oct26-30): Network Security Basics; Quiz3 due; Lab5 due, Lab6 starts;
Week 09 (Nov02-06): Firewalls, Transportation Layer Security, Wireless Security; Lab 6 due, Lab7 Starts;
Week 10 (Nov09-13): Application Security Basics; Quiz4 due; No Labs as conflicts with Remembrance Day.
Week 11 (Nov16-20): Database Security, Mobile Code Security; Lab 7 due, Lab 8 starts;
Week 12 (Nov23-27): Malware, Host Security, Security Evaluation, Quiz5 due; Lab 8 due, Lab 9&10 Starts;
Week 13 (Nov30-Dec04): Penetration Testing, Computer Forensics Basics; Lab 9&10 Continues;
Week 14 (Dec07-11): Physical Security Basics and Final Exam Review; Quiz6 due; Lab9/10 Due;

Final Exam Date: TBA

This schedule is subject to change.

5. Basis of Student Assessment (Weighting)

(a) Labs (10 Labs)   **30%**

Must complete all labs.
Must achieve a minimum average of 55% on the labs.

Late assignments and/or labs are subjected to an 10% penalty, except by the instructor's prior written permission or in the presence of a dire and documented short-term medical or family emergency.

(b) Quizzes (6 Quizzes)   **30%**

Must complete all quizzes.
Must achieve a minimum average of 55% on quizzes.

(c) Exams (One Final Exam)   **40%**

Must achieve a minimum average 55% on the Final exam to pass the course.

No leaving during any examination unless an accommodation in place.

6. Grading System

| X | 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

Department Policies:

Grade review: You have 7 days after marks are posted to review with your instructor.

Academic Dishonesty:

> 1st violation: minus the weight of the deliverable and a note on your departmental file.

> 2nd violation: F in the course

> 3rd violation: Student Conduct Policy E-2.5 is applied

Missed Examinations/Quizzes: If a student misses a quiz or an exam, a mark of zero will be assigned unless there are extenuating circumstances. In such cases, the proportion of grade assigned to the missed quiz or exam will be added to the proportion assigned to the final exam. The final exam will be held during exam week. NO consideration will be given to any student wishing to write the exam at any other time than that assigned.

Electronic Devices: The school's policy regarding electronic devices is that any student who has a cell phone or other unauthorized electronic device (ie. ipad, laptop, playbook, etc.) on their person or around their desk during an exam will be guilty of cheating and will a grade of "F" for the course.

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
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	*Incomplete*: 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	*In progress*: 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	*Compulsory Withdrawal*: 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.