



CAMOSUN COLLEGE
Trades and Technology
Computer Science

ICS 126 - Systems Administration
Winter 2021

COURSE OUTLINE

The calendar description <http://camosun.ca/learn/calendar/current/web/comp.html>
is available on the web @ _____

[?] *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	Kevin Belanger		
(b) Office hours	By Appointment		
(c) Location	Technology Building 261		
(d) Phone	250.370.3864	Alternative:	https://discord.gg/UYtHgcAGf6
(e) E-mail	belangerk@camosun.ca		
(f) Website	https://discord.gg/UYtHgcAGf6		

2. Intended Learning Outcomes

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

- Demonstrate the essentials of IT support skills including installing, configuring, diagnosing, securing, and troubleshooting different operating systems on a virtual machine (Weeks 1, 2, 9, 14)

- Create, modify, and delete users, groups, and policies for different operating systems (Weeks 3, 14) • Demonstrate the essential system administration skills related to server operating systems, system and network administration, and directory services administration (Weeks 1 - 5, 7 - 14)
- Develop a network security policy to counter threats against information systems security (Weeks 2, 3, 9 - 14)
- Configure and access various consoles to manage system logging, time synchronization, and task automation (Weeks 2, 4, 5, 7 - 9)
- Apply accepted standards to ensure security, privacy, and integrity of data while recognizing the ethical, legal, and social implications of data storage (Weeks 1-5, 7-14)

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

3. Required Materials

(a) Required Texts: ICS 126 Lab Manual PDF or paper

(b) Optional, recommended texts:

- Evi Nemeth et al., *Unix and Linux System Administration Handbook*, 5th Edition, Addison-Wesley, 2018
- Mark G. Sobell and Matthew Helmke, *A Practical Guide to Linux Commands, Editors, and Shell Programming*, 4th Edition, Addison-Wesley, 2018

4. Course Content and Schedule

(Can include: Class hours, Lab hours, Out of Class Requirements and/or Dates for quizzes, exams, lecture, labs, seminars, practicums, etc.)

Week 01: Setting up Windows Server; Labs start!

Week 02: Setting up Ubuntu and Docker using Hyper-V; Windows Server Lab due

Week 03: Configuring, securing, and troubleshooting systems and networks; Ubuntu Lab due

Week 04: Managing accounts and shared volumes; Configuration/Securing/Troubleshooting Lab due
Week 05: Windows domains; Account Management/Shared Volumes Lab due

Week 06: Reading Break

Week 07: Networking; Domains Lab due

Week 08: Scripting (UNIX)

Week 09: Scheduled scripts (UNIX); Network and Scripting Lab due

Week 10: Powershell; Scheduled Scripts Lab due

Week 11: Powershell (cont'd)
Week 12: DNS and terminal servers; Powershell Lab due
Week 13: Web and mail servers; DNS and Terminal Servers Lab due
Week 14: Review; Web and Mail Servers Lab due
Final Exam: TBA
This schedule is subject to change.

5. Basis of Student Assessment (Weighting)

(Should be directly linked to learning outcomes.)

(a) Lab Assignments: 15%

Must complete all labs and submit proof to D2L Assignments.
Must achieve a minimum grade (NOT average) of 55% on each and every lab assignment.

Late assignments and/or labs are subjected to a 40% 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: 30%

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

(c) Final Exam: 50%

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

No leaving during or interrupting any examination unless an accommodation in place (no leaving before the first 30 minutes of the exam period).

See Department Policies under section 8.

(d) Participation & Attendance: 5%

Lab Participation (Attendance and Punctuality, Presence of Lab Manual, No Food or Uncovered Drink)

See Department Policies under section 8.

6. Grading System

Standard Grading System (GPA)

Competency Based Grading System

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

Optional, recommended texts:

- Evi Nemeth et al., Unix and Linux System Administration Handbook, 5th Edition, Addison-Wesley, 2018
- Mark G. Sobell and Matthew Helmke, A Practical Guide to Linux Commands, Editors, and Shell Programming, 4th Edition, Addison-Wesley, 2018

Student Conduct:

It is important you familiarize yourself with college policy around academic honesty and what it means when you violate the Standards of Integrity.

Policy E-1.13: Academic Integrity <http://camosun.ca/about/policies/education-academic/e-1-programming-and-instruction/e-1.13.pdf>

Policy E-2.5.1: Plagiarism: Definitions and Consequences <http://camosun.ca/about/policies/education-academic/e-2-student-services-and-support/e-2.5.1.pdf>

See below for Department Policy on Academic Integrity violations.

Academic Accommodations:

“You are responsible to communicate with your instructors. If you are registered with CAL, CAL will provide you with a letter for each course instructor outlining what accommodations you require.

...

Connecting with your course instructors shortly after you have shared your letter of academic accommodation (as early as possible at the beginning of the term, if possible) will provide an opportunity to discuss the content, structure and expectations of the course as they relate to your academic accommodations. Connecting in with your instructor(s) gives you both a good opportunity to consider how the term might work and any contingency plans

that may be needed. You are not required to disclose the nature of your disability to your course instructor(s), just what academic accommodations you need.

If you have accommodations for exams, it is your responsibility to review and follow the processes outlined on the Exams page.” (<http://camosun.ca/services/accessible-learning/current-students.html>)

The following document is also helpful in understanding academic accommodations: http://camosun.ca/services/accessible-learning/_documents/academic-accommodation.pdf

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 Integrity Violations:

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, project or an exam, a mark of zero will be assigned unless there are extenuating circumstances. You must **provide a note from a medical practitioner (Doctor, Nurse, Psychologist, Councilor, etc)** 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	<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.