CAMOSUN COLLEGE
School of Trades and Technology
Department of Computer Science

ICS 126 – Systems Administration
Winter 2020

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	Kevin Belanger		
(b) Office hours	By Appointment		
(c) Location	Technology Building 259 Lab		
(d) Phone	250.370.3853	**Alternative:**	TC 263
(e) E-mail	belangerk@camosun.bc.ca		
(f) Website	D2L		

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) Texts
Evi Nemeth et al., *Unix and Linux System Administration Handbook*, 5th Edition, Addison-Wesly, 2018

Mark G. Sobell and Matthew Helmke, *A Practical Guide to Linux Commands, Editors, and Shell Programming*, 4th Edition, Addison-Wesley, 2018

(b) Other
ICS 126 Lab Manual

4. Course Content and Schedule

Week 01: No Labs: course intro
Week 02: Setting up Windows Server; Labs start!
Week 03: Setting up Ubuntu and Docker using Hyper-V; Windows Server Lab due
Week 04: Configuring, securing, and troubleshooting systems and networks; Ubuntu Lab due
Week 05: Managing accounts and shared volumes; Configuration/Securing/Troubleshooting Lab due
Week 06: Windows domains; Account Management/Shared Volumes Lab due
Week 07: Reading Break
Week 08: Networking; Domains Lab due
Week 09: Scripting (UNIX)
Week 10: Scheduled scripts (UNIX); Network and Scripting Lab due
Week 11: Powershell; Scheduled Scripts Lab due
Week 12: Powershell (cont'd)
Week 13: DNS and terminal servers; Powershell Lab due
Week 14: Web and mail servers; DNS and Terminal Servers Lab due
Week 15: Review; Web and Mail Servers Lab due

Final Exam: TBA

This schedule is subject to change.

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 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.)*

| 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

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.