



**CAMOSUN COLLEGE**  
**School of Trades and Technology**  
**Computer Science Department**

**ICS 126 – Systems Administration**  
**Winter 2018**

## **COURSE OUTLINE**

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The calendar description is available on the web @ [camosun.ca/learn/calendar/current/web/comp.html](http://camosun.ca/learn/calendar/current/web/comp.html)

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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.

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### **1. Instructor Information**

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|-------------------------|--------------------------------------------------------|
| <b>(a) Instructor</b>   | X01: Douglas Greening X02: Michael Horie               |
| <b>(b) Office hours</b> | By Appointment                                         |
| <b>(c) Location</b>     | X01: TECH 267 X02: TECH 246                            |
| <b>(d) Phone</b>        | Please e-mail <b>Alternative:</b> N/A                  |
| <b>(e) E-mail</b>       | X01: greeningd@camosun.bc.ca X02: horiem@camosun.bc.ca |
| <b>(f) Website</b>      | D2L                                                    |

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### **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  
E. Nemeth et al., UNIX and Linux System Administration Handbook, 5th ed., Addison-Wesley
- (b) Optional Texts  
R. Morimoto et al., Windows Server 2016 Unleashed, Pearson Education

### 4. Course Content and Schedule

Week 01: Installing and updating Windows Server/Hyper-V/Ubuntu/Docker  
Week 02: Configuring, securing, and troubleshooting systems and networks  
Week 03: Managing local and network accounts, and shared volumes  
Week 04: Writing and troubleshooting shell scripts (UNIX)  
Week 05: Writing and troubleshooting shell scripts (UNIX) - cont'd  
Week 06: Reading Break  
Week 07: Writing and troubleshooting shell scripts (Windows)  
Week 08: Writing and troubleshooting shell scripts (Windows) - cont'd  
Week 09: Analyzing logs  
Week 10: Managing terminal servers  
Week 11: Managing web servers  
Week 12: Managing DHCP and DNS  
Week 13: Managing mail servers  
Week 14: Review  
Final Exam: TBA

**This schedule is subject to change.**

### 5. Basis of Student Assessment (Weighting)

- (a) Assignments  
Lab + Home Components 20%  
**Must complete ALL labs to pass the course**
- (b) Quizzes 30%  
**Must pass the quiz portion to pass the course**
- (c) Exams 50%  
Final Exam  
**Must pass the final to pass the course**
- (b) Other (e.g. Project, Attendance, Group Work)  
N/A

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

- Standard Grading System (GPA)
- Competency Based Grading System

## 7. Recommended Materials or Services to Assist Students to Succeed Throughout the Course

### LEARNING SUPPORT AND SERVICES FOR STUDENTS

There are a variety of services available for students to assist them throughout their learning. This information is available in the College Calendar, Student Services or the College web site at <http://www.camosun.bc.ca>

### STUDENT CONDUCT POLICY

There is a Student Conduct Policy. It is the student's responsibility to become familiar with the content of this policy. The policy is available in each School Administration Office, Registration, and on the College web site in the Policy Section.  
<http://camosun.ca/about/policies/index.html>

#### A. GRADING SYSTEMS <http://camosun.ca/about/policies/index.html>

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://camosun.ca/about/policies/index.html> 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. |