

# COURSE SYLLABUS



COURSE TITLE: CSNT 230 Linux Systems

CLASS SECTION: 001

TERM: Fall 2023

COURSE CREDITS: 3

DELIVERY METHOD(S): Blended Learning

Camosun College campuses are located on the traditional territories of the Lək̓ʷəŋən and W̱SÁNEĆ peoples. We acknowledge their welcome and graciousness to the students who seek knowledge here.  
Learn more about Camosun's

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The COVID-19 pandemic has presented many challenges, and Camosun College is committed to helping you safely complete your education. Following guidelines from the Provincial Health Officer, WorkSafe BC, and the B.C. Government to ensure the health and wellbeing of students and employees, Camosun College is providing you with every possible protection to keep you safe. Our measures include COVID Training for students and employees, health checks, infection control protocols including sanitization of spaces, PPE and ensuring physical distancing. For details on these precautions please follow this link: <http://camosun.ca/covid19/faq/covid-faqs-students.html>. However, if you're at all uncomfortable being on campus, please share your concerns with your Instructor. If needed, alternatives will be discussed.

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*Camosun College requires mandatory attendance for the first class meeting of each course. If you do not attend, and do not provide your instructor with a reasonable explanation in advance, you will be removed from the course and the space offered to the next waitlisted student.*

## INSTRUCTOR DETAILS

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NAME: Ian Cameron  
EMAIL: [cameron@camosun.ca](mailto:cameron@camosun.ca)  
OFFICE: TEC 211  
HOURS:

*As your course instructor, I endeavour to provide an inclusive learning environment. However, if you experience barriers to learning in this course, do not hesitate to discuss them with me. Camosun College is committed to identifying and removing institutional and social barriers that prevent access and impede success.*

## CALENDAR DESCRIPTION

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Students will learn how to use the Linux command line editor, and will develop an understanding of the processes, programs and components of the Linux operating system. The students will use primarily the Linux command line interface to configure programs, files and directories, set file attributes and permissions, and manage users and groups.

PREREQUISITE(S):

CO-REQUISITE(S):

EXCLUSION(S):

## COURSE LEARNING OUTCOMES / OBJECTIVES

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Upon successful completion of this course a student will be able to:

- gain a working knowledge of the Linux command line;
- install and configure a computer running Linux;
- configure basic networking using virtual machines; and
- prepare for either certification LPIC-1 (Exam 101-500) or CompTIA Linux+
- prepare for certification LPIC-2(Exam 102-500)

## REQUIRED MATERIALS & RECOMMENDED PREPARATION / INFORMATION

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Texts - No printed text

Materials: NDG Linux 1 & 2 – hosted on Cisco NetSpace (netacad.com) – access key purchase required for each course.

Access to Camosun D2L Course

## COURSE SCHEDULE, TOPICS, AND ASSOCIATED PREPARATION / ACTIVITY / EVALUATION

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The following schedule and course components are subject to change with reasonable advance notice, as deemed appropriate by the instructor.

WEEK or DATE RANGE	ACTIVITY or TOPIC	OTHER NOTES
1	<p><b><u>LINUX 1</u></b> <b><u>Module 1: Getting Started</u></b> <b><u>Module 2: Basic File Management</u></b></p> <p>Seminar      - Introduction                   - Using the Shell                   - Configuring the Shell                   - File Globbing                   - File Manipulation                   - Finding Files</p> <p>Labs            - Labs 02, 03, 04, 05, 06</p> <p>Lab Assignment #1</p>	<p><b><u>Reading</u></b></p> <p>Linux Chapter 1 Linux Chapter 2 Linux Chapter 3</p> <p>Linux Chapter 4 Linux Chapter 5 Linux Chapter 6</p>

WEEK or DATE RANGE	ACTIVITY or TOPIC	OTHER NOTES
2	<p><b><u>Module 3: Working with Text</u></b></p> <p>Seminar      - Text Utilities                          - Regular Expressions                          - The vi Editor                          - Standard Text Streams and Redirection</p> <p>Labs            - Labs 07, 08, 09, 10</p> <p>Lab Assignment #2</p>	<p><b><u>Reading</u></b></p> <p>Linux Chapter 7          Linux Chapter 8          Linux Chapter 9          Linux Chapter 10</p>
3	<p><b><u>Module 4: Advanced File Management</u></b></p> <p>Seminar      - Managing Processes                          - Archive Commands                          - File Permissions                          - Filesystem Links</p> <p>Lab             - Labs 11, 12, 13, 14</p> <p>Lab Assignment #3</p>	<p><b><u>Reading</u></b></p> <p>Linux Chapter 11          Linux Chapter 12          Linux Chapter 13          Linux Chapter 14</p>
4	<p><b><u>Module 5: Booting the System</u></b></p> <p>Seminar      - Hardware Configuration                          - The Boot Process                          - Bootloaders                          - Runlevels</p> <p>Lab             - Labs 15, 17, 18                          - Chapters 1 -14 Exam (Mid Term 1)                          - Practical Mid Term 1</p> <p>Lab Assignment #4</p>	<p><b><u>Reading</u></b></p> <p>Linux Chapter 15          Linux Chapter 16          Linux Chapter 17          Linux Chapter 18</p>
5	<p><b><u>Module 6: Partitioning</u></b></p> <p>Seminar      - Designing a Disk Partitioning Scheme                          - Creating Partitions</p> <p>Lab             - None</p> <p>Lab Assignment #5</p>	<p><b><u>Reading</u></b></p> <p>Linux Chapter 19          Linux Chapter 20</p>

WEEK or DATE RANGE	ACTIVITY or TOPIC	OTHER NOTES
6	<p><b><u>Module 7: Administration of Filesystems</u></b></p> <p>Seminar      - Mounting Filesystems                          - Maintaining Integrity                          - Fixing Filesystems</p> <p>Lab             - Labs 21, 22, 23</p> <p>Lab Assignment #6</p>	<p><b><u>Reading</u></b></p> <p>Linux Chapter 21          Linux Chapter 22          Linux Chapter 23</p>
7	<p><b><u>Module 8: System Software</u></b></p> <p>Seminar      - Package Management                          - Managing Shared Libraries                          - Virtualization</p> <p>Lab             - Labs 24, 25</p> <p>Lab Assignment #7</p>	<p><b><u>Reading</u></b></p> <p>Linux Chapter 24          Linux Chapter 25          Linux Chapter 26</p>
8	<p><b><u>LINUX 2</u></b>  <b><u>Module 1: Advanced Shell Features</u></b></p> <p>Seminar      - Advanced Shell Features                          - Shell Scripts</p> <p>Labs            - Labs 01, 02                          - Final Exam for Linux 1                          - Practical Final Exam 1</p> <p>Lab Assignment #8</p>	<p><b><u>Reading</u></b></p> <p>Linux Chapter 1          Linux Chapter 2</p>
9	<p><b><u>Module 2: Administering the Display</u></b></p> <p>Seminar      - X Window                          - Graphical Desktops                          - Accessibility</p> <p>Labs            - Labs 03, 04, 05</p> <p>Lab Assignment #9</p>	<p><b><u>Reading</u></b></p> <p>Linux Chapter 3          Linux Chapter 4          Linux Chapter 5</p>

WEEK or DATE RANGE	ACTIVITY or TOPIC	OTHER NOTES
10	<p><b><u>Module 3: User and System Administration</u></b></p> <p>Seminar      - User and Group Accounts                          - Scheduling Jobs                          - Localization</p> <p>Labs            - Labs 06, 07, 08</p> <p>Lab Assignment #10</p>	<p><b><u>Reading</u></b></p> <p>Linux Chapter 6          Linux Chapter 7          Linux Chapter 8</p>
11	<p><b><u>Module 4: System Services</u></b></p> <p>Seminar      - System Time                          - System Logging                          - Email Configuration                          - Printer Management</p> <p>Labs            - Labs 09, 10, 11, 12                          - Chapters 1-8 Exam for Linux 2                          - Practical Mid Term 2</p> <p>Lab Assignment #11</p>	<p><b><u>Reading</u></b></p> <p>Linux Chapter 9          Linux Chapter 10          Linux Chapter 11          Linux Chapter 12</p>
12	<p><b><u>Module 5: Networking</u></b></p> <p>Seminar      - Networking Fundamentals                          - Network Configuration                          - Network Troubleshooting</p> <p>Labs            - Labs 13, 14, 15</p> <p>Lab Assignment #12</p>	<p><b><u>Reading</u></b></p> <p>Linux Chapter 13          Linux Chapter 14          Linux Chapter 15</p>
13	<p><b><u>Module 6: System Security</u></b></p> <p>Seminar      - Account Security                          - Host Security                          - Encryption</p> <p>Labs            - Labs 16, 17, 18</p> <p>Lab Assignment #13</p>	<p><b><u>Reading</u></b></p> <p>Linux Chapter 16          Linux Chapter 17          Linux Chapter 18</p>
14	<p><b><u>Exam Prep and Review</u></b></p> <p>- Final Exam for Linux 2          - Practical Final 2</p>	<p><b><u>Reading</u></b></p> <p>None</p>
15	Final Certification Exam - TBA	

Students registered with the Centre for Accessible Learning (CAL) who complete quizzes, tests, and exams with academic accommodations have booking procedures and deadlines with CAL where advanced notice is required. Deadlines can be reviewed on the [CAL exams page](http://camosun.ca/services/accessible-learning/exams.html). <http://camosun.ca/services/accessible-learning/exams.html>

## EVALUATION OF LEARNING

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DESCRIPTION	WEIGHTING
NDG Online Labs	10
NDG Online Chapter Exams	5
Lab Assignments	15
Chapters 1-14 Theory Linux 1 Exam (Mid Term 1)	10
Linux 1 Practical Exam (Mid Term 1)	10
Chapters 1-8 Theory Linux 2 Exam (Mid Term 2)	10
Linux 2 Practical Exam (Mid Term 2)	10
Final Exams Linux 1 and Linux 2 (theory)	15
Final Exams Linux 1 and Linux 2 (practical)	15
<b>TOTAL</b>	<b>100%</b>

If you have a concern about a grade you have received for an evaluation, please come and see me as soon as possible. Refer to the [Grade Review and Appeals](http://camosun.ca/about/policies/education-academic/e-1-programming-and-instruction/e-1.14.pdf) policy for more information.  
<http://camosun.ca/about/policies/education-academic/e-1-programming-and-instruction/e-1.14.pdf>

NDG Online Labs – These are the labs completed from the Netacad site through the LPI curriculum

NDG Online Chapter Exams – These are completed from the Netacad site and enabled until the end of each week – Sunday Midnight. The student is responsible to complete the Chapter Exams on their own during the scheduled time.

Lab Assignments – These are completed during the scheduled lab periods and submitted to the appropriate weekly assignment dropbox in D2L.

Mid Term Theory Exams – These are completed from the Netacad site during the second lab period of the appropriate week based on the previous weeks content.

Mid Term Practical Exams – These are completed in the second lab period of the appropriate week and will reflect practical skills learned during the course.

Final Theory Exams – These are completed from the Netacad site during the second lab period of the appropriate week based on the entire course content.

Final Practical Exams – These are completed in the second lab period of the appropriate week and will reflect practical skills learned during the course.

## COURSE GUIDELINES & EXPECTATIONS

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The following criteria must be met:

- Students must obtain a minimum weighted average of 60% in theory evaluations (tests, examinations etc.) in any course that is a pre-requisite for subsequent courses.
- Students must obtain a minimum weighted average of 60% in lab evaluations (lab performance, reports, etc.) in any course that is a pre-requisite for subsequent courses.
- Students must obtain a minimum of 50% on the final examination for a course in order to receive a passing grade.

- Failure to meet any one of these criteria will result in a student receiving a failing grade for the course.
- All assignments (laboratory work, reports, etc.) must be submitted prior to a student writing a final examination. ALL assignments must be submitted in order to qualify to write a final exam.
- Late assignments will be awarded a mark of zero.

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## SCHOOL OR DEPARTMENTAL INFORMATION

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### STUDENT RESPONSIBILITY

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Enrolment at Camosun assumes that the student will become a responsible member of the College community. As such, each student will display a positive work ethic, assist in the preservation of College property, and assume responsibility for their education by researching academic requirements and policies; demonstrating courtesy and respect toward others; and respecting expectations concerning attendance, assignments, deadlines, and appointments.

### SUPPORTS AND SERVICES FOR STUDENTS

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Camosun College offers a number of services to help you succeed in and out of the classroom. For a detailed overview of the supports and services visit <http://camosun.ca/students/>.

Academic Advising	<a href="http://camosun.ca/advising">http://camosun.ca/advising</a>
Accessible Learning	<a href="http://camosun.ca/accessible-learning">http://camosun.ca/accessible-learning</a>
Counselling	<a href="http://camosun.ca/counselling">http://camosun.ca/counselling</a>
Career Services	<a href="http://camosun.ca/coop">http://camosun.ca/coop</a>
Financial Aid and Awards	<a href="http://camosun.ca/financialaid">http://camosun.ca/financialaid</a>
Help Centres (Math/English/Science)	<a href="http://camosun.ca/help-centres">http://camosun.ca/help-centres</a>
Indigenous Student Support	<a href="http://camosun.ca/indigenous">http://camosun.ca/indigenous</a>
International Student Support	<a href="http://camosun.ca/international/">http://camosun.ca/international/</a>
Learning Skills	<a href="http://camosun.ca/learningskills">http://camosun.ca/learningskills</a>
Library	<a href="http://camosun.ca/services/library/">http://camosun.ca/services/library/</a>
Office of Student Support	<a href="http://camosun.ca/oss">http://camosun.ca/oss</a>
Ombudsperson	<a href="http://camosun.ca/ombuds">http://camosun.ca/ombuds</a>
Registration	<a href="http://camosun.ca/registration">http://camosun.ca/registration</a>
Technology Support	<a href="http://camosun.ca/its">http://camosun.ca/its</a>
Writing Centre	<a href="http://camosun.ca/writing-centre">http://camosun.ca/writing-centre</a>

If you have a mental health concern, please contact Counselling to arrange an appointment as soon as possible. Counselling sessions are available at both campuses during business hours. If you need urgent support after-hours, please contact the Vancouver Island Crisis Line at 1-888-494-3888 or call 911.

## COLLEGE-WIDE POLICIES, PROCEDURES, REQUIREMENTS, AND STANDARDS

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### Academic Accommodations for Students with Disabilities

The College is committed to providing appropriate and reasonable academic accommodations to students with disabilities (i.e. physical, depression, learning, etc). If you have a disability, the [Centre for Accessible Learning](#) (CAL) can help you document your needs, and where disability-related barriers to access in your courses exist, create an accommodation plan. By making a plan through CAL, you can ensure you have the appropriate academic accommodations you need without disclosing your diagnosis or condition to course instructors. Please visit the CAL website for contacts and to learn how to get started:

<http://camosun.ca/services/accessible-learning/>

### Academic Integrity

Please visit <http://camosun.ca/about/policies/education-academic/e-1-programming-and-instruction/e-1.13.pdf> for policy regarding academic expectations and details for addressing and resolving matters of academic misconduct.

### Academic Progress

Please visit <http://camosun.ca/about/policies/education-academic/e-1-programming-and-instruction/e-1.1.pdf> for further details on how Camosun College monitors students' academic progress and what steps can be taken if a student is at risk of not meeting the College's academic progress standards.

### Course Withdrawals Policy

Please visit <http://camosun.ca/about/policies/education-academic/e-2-student-services-and-support/e-2.2.pdf> for further details about course withdrawals. For deadline for fees, course drop dates, and tuition refund, please visit <http://camosun.ca/learn/fees/#deadlines>.

### Grading Policy

Please visit <http://camosun.ca/about/policies/education-academic/e-1-programming-and-instruction/e-1.5.pdf> for further details about grading.

### Grade Review and Appeals

Please visit <http://camosun.ca/about/policies/education-academic/e-1-programming-and-instruction/e-1.14.pdf> for policy relating to requests for review and appeal of grades.

### Mandatory Attendance for First Class Meeting of Each Course

Camosun College requires mandatory attendance for the first class meeting of each course. If you do not attend, and do not provide your instructor with a reasonable reason in advance, you will be removed from the course and the space offered to the next waitlisted student. For more information, please see the "Attendance" section under "Registration Policies and Procedures"

(<http://camosun.ca/learn/calendar/current/procedures.html>) and the Grading Policy at

<http://camosun.ca/about/policies/education-academic/e-1-programming-and-instruction/e-1.5.pdf>.



### Medical / Compassionate Withdrawals

Students who are incapacitated and unable to complete or succeed in their studies by virtue of serious and demonstrated exceptional circumstances may be eligible for a medical/compassionate withdrawal. Please visit <http://camosun.ca/about/policies/education-academic/e-2-student-services-and-support/e-2.8.pdf> to learn more about the process involved in a medical/compassionate withdrawal.

### Sexual Violence and Misconduct

Camosun is committed to creating a campus culture of safety, respect, and consent. Camosun's Office of Student Support is responsible for offering support to students impacted by sexual violence. Regardless of when or where the sexual violence or misconduct occurred, students can access support at Camosun. The Office of Student Support will make sure students have a safe and private place to talk and will help them understand what supports are available and their options for next steps. The Office of Student Support respects a student's right to choose what is right for them. For more information see Camosun's Sexualized Violence and Misconduct Policy: <http://camosun.ca/about/policies/education-academic/e-2-student-services-and-support/e-2.9.pdf> and [camosun.ca/sexual-violence](http://camosun.ca/sexual-violence). To contact the Office of Student Support: [oss@camosun.ca](mailto:oss@camosun.ca) or by phone: 250-370-3046 or 250-3703841

### Student Misconduct (Non-Academic)

Camosun College is committed to building the academic competency of all students, seeks to empower students to become agents of their own learning, and promotes academic belonging for everyone. Camosun also expects that all students to conduct themselves in a manner that contributes to a positive, supportive, and safe learning environment. Please review Camosun College's Student Misconduct Policy at <http://camosun.ca/about/policies/education-academic/e-2-student-services-and-support/e-2.5.pdf> to understand the College's expectations of academic integrity and student behavioural conduct.

**Changes to this syllabus:** Every effort has been made to ensure that information in this syllabus is accurate at the time of publication. The College reserves the right to change courses if it becomes necessary so that course content remains relevant. In such cases, the instructor will give the students clear and timely notice of the changes.