COSC-2306EL-01
The Unix Operating System
Fall 2025

COURSE OUTLINE / PLAN DE COURS

University Calendar Description/ description du calendrier de l'Université
This course will cover the essential aspects of UNIX and UNIX-Like environments. Topics include shells/terminals, shell programming using scripts, system and application development tools, process creation/destruction and control, the file system and devices, networking, basic administration, and the X Window system.

The program and the university reserve the right to modify elements of the course during the term. The university may change the dates and deadlines for any or all courses in extreme circumstances. If modifications become necessary, reasonable notice and communication with the students will be given. Students will be provided with an explanation and an opportunity to comment. /
Le programme et l'Université se réservent le droit de modifier des éléments du cours au cours du semestre. L'Université peut modifier les dates et les dates limites d'un cours ou de la totalité des cours dans des circonstances extrêmes. Si des modifications sont nécessaires, un préavis raisonnable et une communication seront envoyés. Les étudiants recevront une explication et l'occasion de commenter.

Prerequisite(s)/ Préalable(s):	COSC 1047EL-01: Computer Science II
Corequisite(s) / Co-requis :	NA
Antiquisite(s)/ Antirequis:	NA

Course Learning Outcomes (see document(s) approved at CELP) /
Résultats d'apprentissage du cours (voir les documents approuvés au CCPF)

# /	Upon completion of this course, students will be able to: / À l'issue de ce cours, les étudiants.es seront capables de :	Aligned Program Learning Outcomes / Résultats d'apprentissage du programme alignés
1	Apply UNIX/Linux commands, file system structures, and process management techniques to operate effectively in a UNIX environment.	1, 2, 3, 4
2	Develop and debug shell scripts to automate tasks and address practical computing problems.	1, 2, 3, 4
3	Implement system tools and administration techniques for software development, user management, and resource monitoring.	1, 2, 3, 4
4	Evaluate networking utilities and open-source principles to configure, troubleshoot, and assess UNIX/Linux system operations.	1, 2, 3, 4

Program Learning Outcomes (PLOs). For a list of the PLOs for this program see the Program Webpage.
Pour la liste des résultats d'apprentissage au niveau du programme, veuillez consulter la page Web du programme.

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Instructor / Enseignant.e	Dr. Meng Cheng Lau
School / École	Bharti School of Engineering and Computer Science
Office / Bureau	FA379A
Telephone / téléphone	705-675-1151, ext: 2324
Email / Courriel	mclau@laurentian.ca *To ensure your email is seen, include "[COSC-2306EL]" in the subject line, followed by the topic (e.g., [COSC-2306EL] Missed Test). Use your university email account. Instructors reply to weekday emails within one business day. Emails sent evenings, weekends, or holidays are answered the next business day. Grade inquiries may take several days.* *Email is only for personal matters (missed tests, grade issues). Course or assignment questions must be posted on the discussion forum, where replies benefit all students. Assignment/code questions sent by email will not be answered; attend office hours for code help.* *The course forum is the fastest way to get help with course material or assignments. Students may post anonymously (names hidden from peers but visible to instructors/TAs).*

Lectures :	Monday, 11:30 AM - 12:50 PM, Science 2A, F-443 Lecture Thursday, 11:30 AM - 12:50 PM, Science 2A, F-443 Lecture
Labs/ laboratoires:	In-Class
Tutorials/ tutoriels:	NA
Attendance / Assiduité :	All students are expected to attend all academic activities punctually and consistently. If a student cannot attend due to exceptional circumstances, they should inform the instructor. Accumulating absences beyond 20% of the total course duration could impact the student's eligibility to receive credit for the course.

Website/ page web:	***Course materials and announcements will be posted on D2L (Desire 2 Learn). It is the student's responsibility to check the D2L page for course information throughout the semester. /*** ***Le matériel de cours et les annonces seront affichés sur D2L. Il incombe à l'étudiant de consulter la page D2L pour obtenir des informations sur les cours tout au long du semestre.***
Office Hours/ Heures de bureau:	10:30 PM - 11:30 PM (Mon & Thurs), FA379A

Educational material/ Matériel pédagogique	**Description** **(text book references and ISBN, etc., required, recommended or optional, applicable restrictions/** **Références et ISBN de manuel(s), requises, recommandées ou optionnelle(s), restrictions applicables)**	**Cost/ coût**
Optional	Graham Glass and King Ables "Linux for Programmers and Users"	NA
Instructors to list textbooks, lab manuals and other learning materials that are mandatory and optional, including all restrictions and the most recent cost per item. /		

Methods of Evaluation / Méthodes d'évaluations

Assessment Type/ type d'évaluation	Assessed CLOs/ résultats évalués	Date	Weight (%) / Poids
Assignment 1	1, 2,	Week 4	10
Assignment 2	2, 3, 4	Week 8	10
Assignment 3	2, 3, 4	Week 12	10
In-class Activities (Quizzes)	1, 2, 3, 4	Every Thursday from Week 3	10
Midterm Exam (In class)	1, 2	October 20	20
Final Exam	1, 2, 3, 4	TBD by Registrar	40

Each of the above assessment are designed to assess your achievement in attaining the aligned CLOs. Assessment results will be posted on D2L (grading). /
Chacune des évaluations ci-dessus est conçue pour évaluer votre réussite dans l'atteinte des résultats d'apprentissage alignés. Les résultats des évaluations seront publiés sur D2L (notes).

Individual Assignments

Throughout the term, students will be required to complete three individual assignments. The release and due dates for these assignments will be made available at a later time.

Please note that no extensions will be granted without proof of extenuating circumstances.

All assignments must be submitted through D2L. A practice assignment (A0) will be available to help you become familiar with the submission process. Not knowing how to submit an assignment will not be accepted as a valid excuse for late submissions.

Late Assignment Policy:
Assignments may be submitted up to 49 hours after the stated due date and time, with a penalty of 2% deducted from the total mark per hour or portion thereof. This means that an assignment submitted even one second late will incur a 2% penalty.

After 49 hours and 1 second, the assignment will no longer be accepted and will receive a mark of zero. Exceptions to this policy will only be made in exceptional circumstances, such as documented medical or family issues. Please note that computer or network problems, as well as errors made during the submission process, do not qualify as exceptional circumstances.

We strongly advise submitting your assignments early to avoid any potential issues.

Quizzes
A minimum of six quizzes will be scheduled throughout the term. The quiz with the lowest score will be dropped, providing flexibility for any missed classes without impacting your overall grade.

Midterm Exam

There will be one term test, the date of which can be found in the important dates below. The topics covered will be made available at a later time, depending on our progress in class.

The test will be one hour long and will consist of multiple-choice and short-answer questions. Please note that there are no make-up tests. Students who miss the test with a valid reason (as outlined in the attendance policy) will be presented with an alternative. Those without a valid reason will receive a mark of zero.

Students registered with Accessibility Services must plan at least 1 week.

Grade Appeals:

Midterm grades may be appealed within 7 days of the date they were returned through D2L. Appeals outside of the 7-day window will not usually be considered.

Final Exam

The final examination for this course will take place outside of regular class time and will be scheduled by the University. Once the date and time have been determined, they will be announced to the class. If you have any conflicts with the scheduled date, please contact the department or registrar's office immediately to make alternative arrangements.

Final Grades / Notes finales

The final grades will be consistent with the University Grading System: LU Grading Scheme
For information regarding appeals of final grades or other academic matters please consult the university's intranet site: LU Grade Appeal Policy / LU Grade Appeal Policy
Les notes finales seront conformes au système de notation universitaire : Système de notation
Pour obtenir des renseignements sur les appels de notes finales, ou pour d'autres questions académiques, veuillez consulter le site de l'Université : Politique d'appel de note

Instructors add any program-specific requirements for this course here / Ajoutez toute exigence spécifique au programme pour ce cours

Lectures, Topics, Assignments and Exams Schedule / Horaire des conférences, des thèmes, des travaux et des examens

Comments:			
Date (dd-MM/ jj-MM)	**Topic(s) / Sujets**	**Aligned CLO(s)# / ° des résultats alignés**	**Readings/ lectures**
Week 1-3	Basic Usage of UNIX Systems, History and Background of UNIX/Linux, Installation of Linux Systems, Basic Commands and Concepts	1	Available on D2L
Week 4-5	Intermediate Commands & Shell Scripting Fundamentals	1,2	Available on D2L
Week 6-7	Script Programming: debugging techniques, error handling	2,3	Available on D2L
Study week / semaine d'études			
Week 8-9	System Administration, Linux Internals: user/group management, permissions, processes, file systems	2,3	Available on D2L
Week 10-11	Basic UNIX Networking	3,4	Available on D2L
Week 12-13	Git, Containers, and Docker, Open-source software	1,2,3,4	Available on D2L

Student Conduct / Conduite des étudiants

Students will be expected to abide by the Laurentian University Code of Conduct./
Les étudiants doivent respecter le Code de conduite de l'Université Laurentienne.

Code of Student Rights and Responsibilities / Énoncé des droits et responsabilités des étudiantes et étudiants

Academic Integrity / Intégrité académique

In this course, students are expected to submit their own individual work for academic credit, properly cite the work of others, and to follow the rules for examinations. Academic misconduct, including plagiarism and cheating, will not be tolerated. Copying of assignments and lab reports is considered academic misconduct. Students are responsible for understanding and following the Laurentian University Policy on Academic Integrity. /
Dans ce cours, les étudiants doivent soumettre leur propre travail individuel pour obtenir leurs crédits académiques, citer correctement le travail des autres, et suivre les règles pour les examens. L'inconduite universitaire, y compris le plagiat et la tricherie, ne seront pas tolérés. Copier des devoirs et des rapports de laboratoire est considéré comme une inconduite académique. Les étudiants sont responsables de comprendre et de suivre la Politique sur l'intégrité intellectuelle de la population étudiante de l'Université Laurentienne.

Student Academic Integrity / Intégrité intellectuelle de la population étudiante, politique et procédure

Conditional Permission of Use of Generative AI:
The use of generative AI is authorized in specific parts of this course. Consult the detailed specific assignment instructions to determine where generative AI is permissible. It is your responsibility to understand the conditions for using generative AI. You must accurately cite any utilization of generative AI in your work. Failure to do so will be considered a breach of academic integrity (see Cheating, Section 6.5.4.5) and will be subject to penalties as detailed in Laurentian University's Policy on Student Academic Integrity. Usage of generative AI outside of the approved contexts will also be considered a breach of academic integrity.

Safety / Sécurité

The Faculty of Science, Engineering and Architecture takes safety very seriously. Students are expected to work in a safe manner, follow all safety instructions, and use any personal protective equipment required or provided. Students failing to observe the safety rules in any laboratory will be asked to leave. /
La Faculté des sciences, de génie et d'architecture prend la sécurité au sérieux. Les étudiants doivent travailler en toute sécurité, suivre toutes les consignes de sécurité, et utiliser tout équipement de protection individuelle requis ou fourni. Les étudiants qui ne respectent pas les règles de sécurité dans un laboratoire devront quitter.

Copyright / Droit d'auteur

The student must obtain the instructor's written permission if the student wishes to: tape-record the sessions, take photographs, video-record, or reproduce any materials provided by the instructor. All such reproductions are an infringement of copyright and therefore prohibited., Please refer to the Laurentian University website for information on copyright:

https://laurentian.ca/policies-accountability/copyright

Accessibility Services / Services d'accessibilité

Students who require accommodation are encouraged to register with the Accessibility Services Office as soon as they begin their program. Laurentian University encourages students to access all resources available through the Office for consistent support and access to their programs. More information can be found online at:

https://laurentian.ca/support/accessibility-services