# Computer Science (COMP) 325

**UNIX Operating System – Principles and Administration** (Revision 3)

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| **Status:** | Replaced with new revision, see the **course listing** ⧉ for the current revision ✖ |
| **Delivery mode:** | **Individualized study online** ⧉ |
| **Credits:** | 3 |
| **Area of study:** | Science |
| **Prerequisites:** | **COMP 268** or equivalent |
| **Precluded:** | COMP 325 may not be taken for credit if credit has already been obtained for COMP 315 or COMP 374 |
| **Challenge:** | COMP 325 is not available for challenge. |
| **Faculty:** | **Faculty of Science and Technology** ⧉ |
| **Notes:** | Students who are concerned about not meeting the prerequisites for this course are encouraged to contact the **course coordinator** before registering. |

## Overview

This course concentrates on the aspects of UNIX that are most needed by a program developer or UNIX programmer: the theory of the UNIX operating system as it informs the system administration. Students are required to install any UNIX/Linux of their choice onto their personal computers.

## Outline

**Part I: User's View**

- Unit 1: UNIX Shell

- Unit 2: File Security

- Unit 3: Basic Shell Programming

**Part II: System Administrator's View**

- Unit 4: Processes

- Unit 5: The Network Models

- Unit 6: Useful Utilities and Files

- Unit 7: File System Backup

## Learning outcomes

Upon successful completion of this course, the student should be able to

- install a Linux operating system on a partition on a computer or dedicated hardware.

- explain UNIX operating system concepts.

- detail the process of booting and shutting down.

- use different utilities and commands in the UNIX operating system.

- write UNIX shell scripts and use complex regular expressions.

- carry out administrator duties such as backing up the file systems, managing accounts, controlling processes, specifying security, and managing networks.

# Evaluation

To **receive credit** ⬀ for COMP 325, you must achieve a course composite grade of at least **D (50 percent)** 🖺 , an average grade of 50 percent on Assignments 1–3, and at least 50 percent on the final examination. The weighting of the composite grade is as follows:

| Activity | Weight |
|---|---|
| Assignment 1 | 20% |
| Assignment 2 | 15% |
| Assignment 3 | 15% |
| Final Examination | 50% |
| **Total** | **100%** |

The **final examination** for this course must be requested in advance and written under the supervision of an AU-approved exam invigilator. Invigilators include either ProctorU or an approved in-person invigilation centre that can accommodate online exams. Students are responsible for payment of any invigilation fees. Information on exam request deadlines, invigilators, and other exam-related questions, can be found at the **Exams and grades** ⬀ section of the Calendar.

To learn more about assignments and examinations, please refer to Athabasca University's **online Calendar** ⬀ .

# Materials

This course either does not have a course package or the textbooks are open-source material and available to students at no cost. This course has a **Course Administration and Technology Fee** ⬀ , but students are not charged the Course Materials Fee.

Sarwar, S. M., & Koretsky, R. M. (2016). *UNIX: The textbook* (3rd ed.). CRC Press.

📖 (eBook)
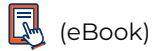
## Important links

› **Academic advising** ⬈

› **Program planning** ⬈

› **Request assistance** ⬈

› **Support services** ⬈

Athabasca University reserves the right to amend course outlines occasionally and without notice. Courses offered by other delivery methods may vary from their individualized study counterparts.

*Opened in Revision 3, May 2, 2022*

*Updated August 29, 2024*

View **previous revision** 🗎