Athabasca University

Computer Science (COMP) 325

Unix Operating System - Principles and Administration (Revision 2)

Delivery mode:	Individualized study online with eText
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
Status:	Replaced with new revision, see the course listing for the current revision
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 on 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 1: Processes
- Unit 2: The Network Models
- Unit 3: Useful utilities and Files
- Unit 4: File System Backup

Learning outcomes

Upon successful completion of this course, you will 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 utilities such as awk, yacc, pine, elm and others.
- 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, managing networks and more.

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 all Assignments, and at least 50 percent on the final examination. The weighting of the composite grade is as follows:

Activity	Weight
Assignment 1 General UNIX Utilities	15%
Assignment 2 Programming Activities	15%
Assignment 3 System Administration	15%
Final	55%
Total	**100%**

The **final examination** for this course must be taken online with an AU-approved exam invigilator at an approved invigilation centre. It is your responsibility to ensure your chosen invigilation centre can accommodate online exams. For a list of invigilators who can accommodate online exams, visit the **Exam Invigilation Network**.

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

Materials

Sarwar, S. M., Koretsky, R., & Sarwar, S. A. (2005). *Unix: The Textbook* (2nd ed.). Boston, MA: Addison Wesley. (eText)

eText

Registration in this course includes an electronic textbook. For more information on **electronic textbooks**, please refer to our **eText Initiative site**.

Special Instructional Features

COMP 325 is offered through Moodle, a Learning Management System that can be accessed through the Web and Athabasca Landing, a web-based social networking environment. COMP 325 can be completed at the student's home, using a dedicated system or disk partition. COMP 325 is an elective course in all undergraduate programs offered by the **School of Computing and Information Systems**.

Important links

- **Academic advising**
- **Program planning**
- **Request assistance**
- **Support services**

Opened in Revision 2, December 6, 2013

Updated April 7, 2022, by Student & Academic Services

View **previous revision**