



# THE UNIVERSITY OF WINNIPEG

## APPLIED COMPUTER SCIENCE

**Course Number – ACS-2941-001**

**Course Name – Unix**

### **Instructor Information**

**Instructor:** Dr. Simon Liao

**Office:** 3D31

**E-mail:** [s.liao@uwinnipeg.ca](mailto:s.liao@uwinnipeg.ca)

**Office Hours:** Thursdays 4:00 pm - 5:00 p.m.  
or by email appointment

**Class Meeting Time:** Tuesdays and Thursdays, @ 11:30 am – 12:45 pm   **Room No:** 3D04

**Course Web Page:** <https://ion.uwinnipeg.ca/~sliao/Courses/Unix001.html>

**Instructor's Home Page:** <https://www.uwinnipeg.ca/~sliao>

**Email:** [s.liao@uwinnipeg.ca](mailto:s.liao@uwinnipeg.ca)

### **Important Dates**

First Class:

January 8, 2019

Reading Week (no classes)

February 17 – 23, 2019

Midterm Test:

11:30 – 12:45, Thursday, February 14, 2019

Final Withdrawal Date w/o academic penalty:

March 15, 2019

(A minimum of 20% of the work on which the final grade is based will be evaluated and available to all students before the voluntary withdrawal date.)

Last Class:

April 4, 2019

Final Exam:

April 17, 2019 @ 9:00 am – 11:00 am

### **Course Objectives/Learning Outcomes**

This course will provide students a comprehensive introduction to Unix operating system, one of the most widely used operating systems that runs on virtually all types of computers.

The course will first introduce students to such topics as shells, filters and pipelines, the Unix file system, processes and job control, and Internet communications. Then the attention will be paid to the Unix shell programming, which provides valuable tools for developing powerful applications while writing a minimal amount of code.

### **Computer system and administrators**

The official computer for this course is **pearl.uwinnipeg.ca** (running Ubuntu 14.04.01)

The system administrator: Mr. Dave Dalgliesh ([d.dalgliesh@uwinnipeg.ca](mailto:d.dalgliesh@uwinnipeg.ca)).

## **Evaluation Criteria**

1. Assignments (20%)
  - All assignments are to be completed **individually**.
  - Number of Assignments: 4 (4%, 4%, 6%, and 6% for Assignment 1, 2, 3, and 4)
  - All commands and scripts must run on pearl.uwinnipeg.ca.
  - Every assignment must be handed in by email on pearl.uwinnipeg.ca.
  - No assignment will be accepted after the due date.
2. Midterm Test: 30%
3. Final Exam: 50%

## **Final Letter Grade Assignment**

Historically, numerical percentages have been converted to letter grades using the following scale. However, instructors can deviate from these values based on pedagogical nuances of a particular class, and final grades are subject to approval by the Department Review Committee.

A+	90+ - 100%	B	70 - 74%	F	below 50%
A	85 - 90%	C+	65 - 69%		
A-	80 - 84%	C	60 - 64%		
B+	75 - 79%	D	50 - 59%		

## **Services for Students**

Students with documented disabilities, temporary or chronic medical conditions, requiring academic accommodations for tests/exams (e.g., private space) or during lectures/laboratories (e.g., note-takers) are encouraged to contact Accessibility Services (AS) at 786-9771 or [accessibilityservices@uwinnipeg.ca](mailto:accessibilityservices@uwinnipeg.ca) to discuss appropriate options. All information about a student's disability or medical condition remains confidential.

<http://www.uwinnipeg.ca/accessibility>.

Students facing a charge of academic or non-academic misconduct may choose to contact the University of Winnipeg Students' Association (UWSA) where a student advocate will be available to answer any questions about the process, help with building a case, and ensuring students have access to support. For more information or to schedule an appointment, visit our website at [www.theuwsa.ca/academic-advocacy](http://www.theuwsa.ca/academic-advocacy) or call 204-786-9780.

We ask that you please be respectful of the needs of classmates and instructors/professors by avoiding the use of unnecessary scented products while attending lectures. Exposure to scented products can trigger serious health reactions in persons with asthma, allergies, migraines or chemical sensitivities. Please consider using unscented necessary products and avoiding unnecessary products that are scented (e.g. perfume).

## **Text Book**

- Instructor's lecture notes

**Prerequisite and restriction Information\*** (This information can be found in the UW General calendar)

Prerequisite Courses: ACS-1903 or ACS-1805 with a minimum grade of C.

## **Misuse of Computer Facilities, Plagiarism, and Cheating**

Academic dishonesty is a very serious offense and will be dealt with in accordance with the University's policies. Be sure that you have read and understood Regulations & Policies #8, in the 2018-2019 UW Undergraduate Academic Calendar available at

<http://uwinnipeg.ca/academics/calendar/docs/regulationsandpolicies.pdf> and the UW academic misconduct policy available at

<http://pace.uwinnipegcourses.ca/sites/default/files/pdfs/publications/Academic%20Misconduct%20Policy.pdf>

*Avoiding Academic Misconduct.* Uploading essays and other assignments to essay vendor or trader sites (filesharing sites that are known providers of essays for use by others who submit them to instructors as their own work) involves "aiding and abetting" plagiarism. Students who do this can be charged with Academic Misconduct.

*Avoiding Copyright Violation.* Course materials are owned by the instructor who developed them. Examples of such materials are course outlines, assignment descriptions, lecture notes, test questions, and presentation slides. Students who upload these materials to filesharing sites, or in any other way share these materials with others outside the class without prior permission of the instructor/presenter, are in violation of copyright law and University policy. Students must also seek prior permission of the instructor /presenter before photographing or recording slides, presentations, lectures, and notes on the board.

Additional information is available at University of Winnipeg library video tutorial "Avoiding Plagiarism" <https://www.youtube.com/watch?v=UvFdxRU9a8g>

## **Topics to be Covered** (tentative)

- Introduction to Unix
- The Online Unix Manual
- Command Syntax
- The Shell
- Using the C-Shell
- Communicating with Other People
- Networks and Addresses
- Redirection and Pipes
- Filters
- Displaying Files
- The Unix File System

Working with Directories  
Working with Files  
Processes and Job Control  
Shell Programming

Note that all topics listed may not be covered and may be offered in a slightly different time order.

**Additional Course Related Information**

1. When it is necessary to cancel a class due to exceptional circumstances, instructors will make every effort to inform students via uwinnipeg email (and/or using the preferred form of communication, as designated in this outline), as well as the Departmental Assistant and Chair/Dean so that class cancellation forms can be posted outside classrooms
2. Students are reminded that they have a responsibility to regularly check their uwinnipeg e-mail addresses (and/or using the preferred form of communication, as designated in this outline) to ensure timely receipt of correspondence from the university and/or their course instructors
3. Please note that withdrawing before the VW date does not necessarily result in a fee refund (March 15 is VW date for classes that begin in January and end in April).
4. No make-up classes scheduled