60-256 *System Programming*

Winter 2017

School of Computer Science, University of Windsor

Lectures

M.W. 11:30am – 12:50pm
CHS 53

Laboratories

section 52 W. 7:00pm – 8:20pm
section 51 W. 8:30pm – 9:50pm

ER 3119

Instructor

Dr. Jessica Chen
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office hours: Wednesday 1:30-3:30

Notes

- Only emails from U Windsor accounts will be accepted. Please include your full name and student ID in each correspondence.
- Please refer to the course website for GA/TA information.
- Students must submit the Student Medical Certificate for missing a test on medical ground.

Pre-requisites: 60-141.

Course Description

This course introduces students to advanced software development techniques in system programming using the C language in the UNIX environment. Topics include introduction to modern operating systems, system calls, managing processes, the use of fork and exec, signals, file processing, filters, pipes, scripting languages, introduction to concurrency (e.g. synchronization), network programming (e.g. using sockets), client-server problems.

Textbook and On-line Resources

- Advanced Programming in the UNIX Environment. By W. Richard Stevens and Stephen A. Rago. Addison Wesley, 3rd edition.
- source code of textbook examples: www.apuebook.com
- gnu.org/software/bash/manual/bashref.html (for Bash)
- course web page: blackboard.uwindsor.ca

Lectures

lectures	reading
Introduction to Unix	Chapter 1
Unix Shell programming	Lecture notes and references
System Call I/O	Chapter 3
Process control	Chapter 8
Signals	Chapter 10
Inter-process communication	Chapter 15
Client-server applications using sockets	Chapter 16
Unix files and directories	Chapter 4
Standard I/O Library	Chapter 5

Evaluation Scheme

labs	1% * 10	
home assignments	2% * 5	
class test	30%	Wed. Mar. 1
final exam	50%	Wed. April. 19

Only numeric final grades will be issued to students and all grades below 50% are considered failures.

Laboratories

Laboratories start from Wednesday January 18. The students are required to attend all labs in the sections they are registered in.

Except for the one during the last week of the course, each lab carries one mark, which must be obtained during the lab sections when the lab work is due.

A student will receive a mark by demonstrating his/her lab assignment and/or answering test questions. When a student receives a mark, he/she must sign on the lab sheet besides the obtained mark to make it valid. It is the responsibility of the students to remind the instructor/GA/TA to sign on the lab sheet.

The weight of a lab assignment could be transferred to that of the final exam if there is a valid reason (together with supporting documents) for not being able to attend the lab.

Assignments

There will be 5 home assignments. All home assignments must be uploaded into the blackboard before they are due. Home assignments submitted one day later than the due date will receive 50% deduction, and no assignments will be accepted one day after the due date.

The weight of an assignment could be transferred to that of the final exam if there is a valid reason (together with supporting documents) for not being able to complete it in time.

Class Tests and Final Exam

There will be a class test and a final exam. Both the class test and the final exam are closed book tests. The class test will cover all material taken so far, and the final exam will cover all the material in the course.

There will be no make-up of the class test. The weight of a missed test could be transferred to that of the final exam if there is a valid reason (together with supporting documents) for missing the test.

The make-up of the final exam will be scheduled for a student if there is a valid reason (together with supporting documents) for missing the exam.

Student Evaluation of Teaching

The Student Evaluation of Teaching (SET) forms will be administered in the class during the last two weeks.