

Course Outline
Carleton University School of Computer Science
COMP 3000 – Operating Systems
Winter 2018

Instructor: Michel Barbeau

Classroom: MC 2000

Class Times: 4:05 pm - 5:25 pm Wednesday and Friday

Office hours		
Michel Barbeau barbeau@scs.carleton.ca	Wednesday 1:00 PM to 4 PM	Room HP 5320
James Brunet james.brunet@carleton.ca	Tuesday 3:00 PM to 4:00 PM	HP5422
Tahira Ghani tahira.ghani@carleton.ca	Saturday 10 AM to 12 PM	SCS TA Room
Saad Hasan saad.hasan3@carleton.ca	Monday 4 PM to 6 PM	
Hemant Gupta hemant.gupta@carleton.ca	Wednesday 5.30 PM to 7.30 PM	
Steven Porretta steven.porretta@carleton.ca	Monday 5:30 PM to 7:30 PM	
Alexandre Skipper AlexandreSkipper@cmail.carleton.ca	Thursday 1:00 PM to 2:00 PM	
Xueli Zhang XueliZhang@cmail.carleton.ca	Monday 11 :30 AM to 12 :30 PM	

Course Description

Operating system implementation course stressing fundamental issues in design and how they relate to modern computer architectures. Assignments involve the modification and extension of a multitasking operating system.

Prerequisites

1. COMP 2402 (SYSC 2100) Abstract Data Types and Algorithms
2. COMP 2401 (SYSC 2006) Introduction to Systems Programming

Topics Covered

Course Outline		
Week	Dates	Contents
1	Jan. 10 & 12	Architecture and system calls
2	Jan. 17 & 19	Processes and inter process communications
3	Sept. 24 & 26	Scheduling
4	Jan. 31 & Feb. 2	Input/output, device drivers
5	Feb. 7 & 9	
6	Feb. 14 & 16	Threads
Winter break		
7	Feb. 28 & Mar. 2	Project proposal interviews
8	Mar. 7 & 9	Memory management
9	Mar. 14 & 16	
10	Mar. 21 & 23	File system
11	Mar. 28 & 30	
12	Mar. 4	Project report format
	Apr. 6	Project report clinic
13	Apr. 11	Project demonstrations

Textbook

Andrew S. Tanenbaum and Herbert Bos, Modern Operating Systems, Fourth Edition, Prentice Hall, 2014.

Useful books

Andrew S. Tanenbaum, The MINIX Book Operating Systems Design and Implementation, Pearson Higher Ed, 2006.

by

Jessica McKellar, Alessandro Rubini, Jonathan Corbet, Greg Kroah-Hartman, Linux Device Drivers, O'Reilly, 2005.

Kerrisk, Michael, The Linux Programming Interface: A Linux and UNIX System Programming Handbook, William Pollock, 2010.

William Stallings, Operating Systems: Internals and Design Principles, Pearson Education, 2017.

Evaluation

Component	Weight	Due Date
Exercises	40	Weekly
Project proposal interview	5	Feb. 28 & Mar. 2
Project demo	5	Apr. 11
Project report	50	Apr. 12

Attendance

Class attendance is very important, as students will be responsible for all items discussed in class.

University Policies

Student Academic Integrity Policy

Every student should be familiar with the Carleton University student academic integrity policy. A student found in violation of academic integrity standards may be awarded penalties which range from a reprimand to receiving a grade of F in the course or even being expelled from the program or University. Some examples of offences are: plagiarism and unauthorized co-operation or collaboration. Information on this policy may be found in the Undergraduate Calendar.

Plagiarism

As defined by Senate, "plagiarism is presenting, whether intentional or not, the ideas, expression of ideas or work of others as one's own". Reported offences will be reviewed by the office of the Dean of Science.

Unauthorized Co-operation or Collaboration

Senate policy states that "to ensure fairness and equity in assessment of term work, students shall not co-operate or collaborate in the completion of an academic assignment, in whole or in part, when the instructor has indicated that the assignment is to be completed on an individual basis". Please refer to the course outline statement or the instructor concerning this issue.

Academic Accommodations for Students with Disabilities

The Paul Menton Centre for Students with Disabilities (PMC) provides services to students with Learning Disabilities (LD), psychiatric/mental health disabilities, Attention Deficit Hyperactivity Disorder (ADHD), Autism Spectrum Disorders (ASD), chronic medical conditions, and impairments in mobility, hearing, and vision. If you have a disability requiring academic accommodations in this course, please contact

PMC at 613-520-6608 or pmc@carleton.ca for a formal evaluation. If you are already registered with the PMC, contact your PMC coordinator to send me your Letter of Accommodation at the beginning of the term, and no later than two weeks before the first in-class scheduled test or exam requiring accommodation (if applicable). After requesting accommodation from PMC, meet with me to ensure accommodation arrangements are made. Please consult the PMC website for the deadline to request accommodations for the formally-scheduled exam (if applicable) at <http://www2.carleton.ca/pmc/new-and-current-students/dates-and-deadlines>

Religious Obligation

Write to me with any requests for academic accommodation during the first two weeks of class, or as soon as possible after the need for accommodation is known to exist. For more details visit the Equity Services website: <http://www2.carleton.ca/equity/>

Pregnancy Obligation

Write to me with any requests for academic accommodation during the first two weeks of class, or as soon as possible after the need for accommodation is known to exist. For more details visit the Equity Services website: <http://www2.carleton.ca/equity/>

Medical Certificate

The following is a link to the official medical certificate accepted by Carleton University for the deferral of final examinations or assignments in undergraduate courses. To access the form, please go to <http://www.carleton.ca/registrar/forms>