

**RYERSON UNIVERSITY**  
**DEPARTMENT OF COMPUTER SCIENCE**  
**CPS801 – WINTER 2012**  
**OPERATING SYSTEMS**

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**Instructor:** Dr. A. Abhari  
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**URL:** <http://www.scs.ryerson.ca/~aabhari>  
**Office Hours:** Wednesday: 2:00 to 5:00 p.m.

**Course:** Operating Systems

**Lectures:** Tuesday: 5:00 to 6:00 p.m. (VIC 103)  
Wednesday: 10:00 to 12:00 p.m. (VIC 103)

**Text Book:**  
Modern Operating Systems , by A. S. Tananbaum, 3rd Edition, Prentice Hall,2007  
ISBN 0136006639

**References:**

- Operating Systems Concepts (Eighth Edition), by Silberschatz, Galvin, and Gagne. Published by Wiley, 2009
- Distributed Systems Concepts and Design, By George Coulouris, Jean Dollimore , Tim Kindberg and Gordon Blair, Addison Wesley; 5 edition (May 7, 2011) ISBN-10: 0132143011, ISBN-13: 978-0132143011
- Inter-process Communications in Linux: The Nooks & Crannies, by John Shapley Gray, Prentice Hall, 2003 (for Linux Practical Examples)

**Prerequisites:** CPS 406 and CPS590

**Evaluation:** Assignments\* 25%  
Projects\* 15 %  
Midterm test 25%  
Final test 35%

In order to pass the course, it is necessary to obtain at least 50% of the (midterm test + final test).

\*There will be maximum two projects and 6-7 assignments, which will be done by the groups consisting of maximum two students.

**Course Description:**

This course will cover the principle internal functions of operating systems with particular emphasis on Unix and system programming. The course consists of assignments and practical examples (based on Unix/Linux) which helps students to understand the principles of how operating systems are built

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**Course Outline**

The topics covered in this course are:

- OS Concepts
- Process Management
- Memory Management
- File Systems
- Input/Output, Auxiliary Storage Management
- Distributed Systems, OS Security based on remaining time.

**Lecture Attendance:**

In addition to regular lectures, there is one hour lab that will be used for demonstrating and marking the assignments. Also there will be some bonus assignments and discussion on assignments and case studies that will be presented during the lecture classes. Tests will be based on text book, assignments and the material presented in the class. Students who do not regularly attend the class should not expect to do well in the assignments and tests.

**Late Assignment Policy:**

Assignments are due at the beginning of the lab on the specified due date and should be emailed to the TA before start of the lab hour. Only the emailed assignment that is demonstrated to the TA will be marked. Any assignment handed in after due date will be considered late assignment and will be given a 15% late penalty per day.

**Test Policy:**

Missing a test/exam for any reason (with the exception of medical reasons) results in a mark of **0** for that test/exam. In case of illness, you need to provide a dated doctor's note stating your illness and the expected duration of your illness. Your doctor must fill out the medical form provided by Ryerson. This form should be submitted within 3 working days of a missed assignment, test or exam. See the policy for details at: [www.ryerson.ca/rr/medical.pdf](http://www.ryerson.ca/rr/medical.pdf)

**Cheating Policy:**

Considering the nature of the assignments after email submission their functionality and source code will be examined for marking purpose. Any plagiarism or academic misconduct will be dealt with university policies. Please read the university policies on academic conduct and plagiarism carefully at: <http://www.ryerson.ca/academicintegrity> and <http://www.ryerson.ca/senate/policies/pol60.pdf>

**Email Policy:**

Only emails from Ryerson email accounts will be used for communication purpose.

**Announcements:**

Announcements regarding assignments, additional references, date and location of the tests will be made periodically in class. It is your responsibility to find out about any announcements you have missed. You are also expected to read the course webpage for any possible announcements.

**Grading Concerns:**

Your mark will be based on your performance, i.e., assignments, test and final exam. There will be no deviation from the stated evaluation criteria. It is your responsibility to attend lectures to find out if any marked material has been handed back. Mistakes in addition must be reported within 10 working days of the return of the graded assignment to the class. No marks will be altered after the 10 days deadline.