# Syllabus for CMP 426/697: Operating Systems
## Fall 2016

**Instructor:** Prof. Megan Owen
**E-mail:** megan.owen@lehman.cuny.edu
**Office hours:** Tuesdays and Thursdays 9:30-11am, Gillet 137E
**Course time:** Tuesdays and Thursdays 11:00am-12:40pm, Gillet 305
**Course website:** http://comet.lehman.cuny.edu/owen/teaching/2016fa/index.html

**CMP 426 Description:** *4 hours, 4 credits.* Operating systems and their role in various types of computer systems; the principles of multiprogramming; algorithms for resource allocation; multiple-computer systems. Prerequisites: CMP 338 and CMP 334.

**CMP 697 Description:** *4 hours, 4 credits.* A study of the functions and implementation of operating systems for various sizes and types of computers. Processor, storage, and device management. Paging algorithms, thrashing. File systems, concurrency, deadlocking, semaphores, and synchronization.

**Undergraduate vs. graduate course:** The lectures will be the same, but the graduate coursework and exams will be at a higher level. Masters students must be enrolled in CMP 697 to receive graduate credit.

**Textbook:** Operating Systems: Three Easy Pieces, by Remzi H. Arpaci-Dusseau and Andrea C. Arpaci-Dusseau.
Available free online at http://pages.cs.wisc.edu/~remzi/OSTEP/.
Hardcover ($36) and softcover ($24) book copies are also available from the same link.

**Grading:** The grading for the course will be based on:

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| Homework | 20% |
| Projects | 30% |
| Quizzes | 20% |
| Final | 30% |

You must pass the final exam to pass the course. The lowest two homework grades and the lowest two quiz grades will be dropped to accommodate any unforeseen problems, such as illness. In the case of a serious emergency (i.e. one disrupting your studies for more than a week), please see or email me to discuss further accommodations (documentation will be required).

**Homework:** Homework will be submitted online to Blackboard and occasionally to Mimir. No late homework will be accepted, but the lowest two homework grades will be dropped.

**Projects:** There will be 4 projects throughout the term. While projects should be submitted on time, each student will have a total of 3 grace days to use at their own discretion. For details, see http://comet.lehman.cuny.edu/owen/teaching/2016fa/projects.html. Projects will be submitted

online to Mimir.  Mimir is free for the first two weeks, and the department will provide free licenses after that. To join the course on Mimir:
1. Go to mimirplatform.io
2. Click on the Login button (upper right corner) and create an account.
3. Once you are logged in, click on "Join a course" and enter the course code: cb83a462c3

**Quizzes:**  There will be 6 quizzes throughout the term, announced at least a week in advance. There will be no make-up quizzes, but the lowest two quiz grades will be dropped.

**Final exam:**  The final exam is required and will be Thursday December 15, 11am - 1pm.  You must pass the final exam to pass the course.

**Use of Technology & Blackboard:**  Coding for this course will be in Java.  Some of the coursework will be submitted via the Blackboard system, provided by CUNY to all enrolled students. If you have not accessed Blackboard or are having difficulties, contact Blackboard Support in the Information Technology Division. You can also visit the Help Desk in the Computer Center (first floor, Carman Hall) in person. They can reset passwords and help with simple Blackboard issues.

**Honor Code:** You are encouraged to work together on the overall design of the homework and projects. However, for specific programs and homework assignments, all work must be your own. You should never copy code from the internet or another student.  You are responsible for knowing and following Lehman's academic integrity code (available from the Undergraduate Bulletin, Graduate Bulletin, or the Office of Academic Standards and Evaluations).  All incidents of cheating will be reported to the Vice President of Student Affairs.

**Accommodating Disabilities:** Lehman College is committed to providing access to all programs and curricula to all students. Students with disabilities who may need classroom accommodations are encouraged to register with the Office of Student Disability Services. For more info, please contact the Office of Student Disability Services, Shuster Hall, Room 238, phone number, 718-960-8441.

**Learning Objectives:**
At the end of the course, students should be able to
1) explain operating systems and their role in various types of computer systems,
2) explain issues arising from processor, storage, and device management,
3) implement concurrency, threads, semaphores, and synchronization, and avoid deadlocking,
4) understand and design algorithms for efficient memory usage,
5) use the command line to interact with the operating system.