

COP 4600 – Introduction To Operating Systems

Summer 2014 - Syllabus

Course Prerequisites: COP 3503, COP 3402, and passed Foundation Exam (COT 3906)

Class Meets: Tuesday and Thursday from 2:00 pm – 3:50 pm in HEC 117

Instructor: Dr. Mark Llewellyn

Office: HEC 236

Office Hours: Monday & Wednesday: 4:30 – 6:00 pm

Tuesday & Thursday: 12:30 – 1:30 pm

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Course Web Site: WebCourses and www.cs.ucf.edu/courses/cop4600/sum2014

Course Description:

This course will introduce you to modern operating systems. We'll deal with the fundamental concepts and algorithms used in the design of existing operating systems kernels. You'll gain an understanding of how operating system abstractions are implemented on conventional hardware. You'll also learn how to apply the main evaluation models used to evaluate a system. We'll also detail how to properly synchronize multi-threaded communicating processes using synchronization primitives such as semaphores and monitors. We'll cover system calls, processes, threading, CPU scheduling, memory management, and security issues. We'll also deal with the terminology, hardware, and software associated with operating system components and structures.

Texts: The following text will be referenced for this course:

Operating System Concepts, Essentials, Silberschatz, Galvin, Gagne, 2011, John Wiley & Sons, ISBN: 978-0-470-88920-6.

Grading:

Three exams will be given, two regular exams and a final exam (comprehensive). Exams are given once – be there as there are no dropped test scores. There will be four to six homework assignments. The homework assignments are to be individual efforts. You must score at least 60% on the final exam to pass the course. Failure to submit any assignment will result in the lowering of your final grade by one letter grade. For example, if you have a total of 83% of the possible points for the course and you failed to submit assignment 2, your final grade will be a C not a B.

Homework assignments (total)	25%
2 Regular Exams (25% each).....	50%
Final Exam (Thursday July 31 st - regular class time).....	25%

Grading Scale:

Plus/minus grading will not be used in this course.

90-100 = A, 80-89 = B, 70-79 = C, 60-69 = D, <60 = F

Academic Integrity:

Plagiarism and cheating of any kind on an examination or project will not be tolerated. It may result in an "F" for that assignment (and can, depending on the severity of the case, lead to an "F" for the entire course). The violation may be subject to appropriate referral to the Office of Student Conduct for further action. Please refer to The Golden Rule (<http://www.goldenrule.sdes.ucf.edu/>) of the University of Central Florida's Student Handbook for further information.

Some Important Dates:

Last Day to Withdraw: **Monday June 30th**

Final Exam: **Thursday July 31st - regular class time**

Topics To Be Covered:

1. Introduction to Operating Systems
2. Hardware Components
3. User Interface
4. Resource Management
5. Processes and Threading
6. CPU Scheduling
7. Process Synchronization
8. Memory Management
9. File System
10. Security

This is a general list of topics only and is subject to the needs of the class. It will be altered without notice, but will generally follow the same progression. At the end of each class I will tell you what we will be discussing during the next class period. On-line notes will supplement the text in many areas.

TA

The TA for the course is TBA.