

Operating Systems
CSCI 411-001
Spring 2014

Syllabus

Class Time: Mondays and Wednesdays 2:00 – 3:15 PM in Carroll 200

Credit Hours: This course is worth 3 credit hours

Course Website: <http://faculty.winthrop.edu/domanm/csci411/>

Objectives: Survey the functions of operating systems and the concepts necessary for the design of an operating system

Topics Covered: Process Control, Mutual Exclusion, Deadlock, Memory Management, Processor Scheduling, I/O Management, and File Management.

Text: Operating System Concepts, 8th Edition

Abraham Silberschatz (Yale University), Peter B. Galvin (Corporate Technologies), Greg Gagne (Westminster College) July 2008, ©2009

Instructor: Dr. Marguerite A Doman

Office: Thurmond 525

Email: domanm at Winthrop.edu -- Please put **CSCI411** subject line

Office Hours:

Tuesday: 1:00 – 4:00

Wednesday 3:30 – 4:30

Thursday: 10:00 – 11:00, 1:00 – 4:00

By Appointment / Through Skype

Attendance:

Attendance will not be taken. You are expected to attend each and every class. There will be no formal relationship between grade and attendance. However, of course, there is the informal relationship that always exists. You are responsible for the material covered in the classes you miss.

Prerequisites: A grade of C or better in CSCI 211.

Tests:

You are expected to take tests at the scheduled times. If you cannot take a test at the scheduled time, then you must request a makeup exam before the scheduled exam date. The instructor will judge the validity of the request, and either disallow it or assign another time.

The final exam will be comprehensive

Assignments:

End of chapter problems will be assigned. These are intended to help you understand the material. They will not be graded. However, if you would like your answers reviewed and corrected, they must be turned in on the due date.

Projects;

Projects are will be assigned throughout the semester. They are due on the date declared. If they are late, you will lose 10 points for each day they are late.

Absolutely NO projects will be accepted after the last class day.

Course grade:

Your course grade will be based on the following weights (tentative):

Test 1	15%
Test 2	15%
Test 3	15%
Final Exam	30%
Assignments/Labs	25%

Your course grade will be determined by a 10 point grading scale, that is,

average \geq 90%	A
90% > average \geq 80%	B
80% > average \geq 70%	C
70% > average \geq 60%	D
average < 60%	F

CSCI 411 is used by the CSQM Department to assess the performance of CSCI majors as part of the program assessment plan for ABET accreditation.

CSCI Program Outcome	Measurement Performed in CSCI411	Metric of Student Performance
B1. Proficiency in the Foundations of Computer Science	Performance in upper-level CS Foundations courses.	Comprehensive Final Exam Grades

SYLLABUS CHANGE POLICY

The grading and attendance policies for this course, as described above, will not change and are adhered to strictly. The schedule of class meetings, listed below, may change due to unexpected events such as class cancellation

Schedule (TENTATIVE)

Week	Section	Dates	Topic	Reading Schedule
1	Overview	Jan 13 Jan 15	Introduction, Overview	Chapter 1,2
2	Process Management	Jan 20	Martin Luther King Day	
		Jan 22	Processes	Chapter 3
3		Jan 27 Jan 29	Threads	Chapter 4
4		Feb 3 Feb 5	CPU Scheduling	Chapter 5
			Process Synchronization	Chapter 6
5		Feb 10 Feb 12	REVIEW Exam 1	
6	Memory Management	Feb 17 Feb 19	Main Memory	Chapter 8
7		Feb 24	Virtual Memory	Chapter 9
	Protection and Security	Feb 26	Protection	Chapter 14
8		Mar 3	Security	Chapter 15
		Mar 5	Encryption	Handouts
9		Mar 10 Mar 12	REVIEW Exam 2	
10		Mar 17 Mar 19	Spring Break	
11	Storage Management	Mar 24	File System Interface	Chapter 10
		Mar 26	File System Implementation	Chapter 11
12		Mar 25	Mass Storage Structure	Chapters 12
		Mar 31	I/O Systems	Chapters 13
13	Distributed Systems	Apr 2	Distributed System Structures	Chapter 16
		Apr 7	Distributed File Systems	Chapter 17
		Apr 9	Distributed Coordination	Chapter 18
14		Apr 14	OS for Many-core Computing Intro to Clouds: Hypervisor	
15		Apr 16 Apr 28	Exam 3 / Case studies and review	
11:30 a.m. Monday., 5/5			Final Exam	

COLLEGE OF BUSINESS EXPECTATIONS REGARDING PROFESSIONALISM IN THE CLASSROOM

The College of Business Administration is a professional organization with a well-defined and widely disseminated mission of student development. Accordingly, each class represents a gathering of professionals and professionals-in-training. The instructor's job as a professional is to deliver quality instruction in each class, to start and end each class on time, to be responsive to student perspectives, issues and questions, and to treat each student respectfully. The student's job, as a professional-in-training is to be prepared for class, to be on time, to attend all classes, and to be respectful of others in the classroom.

In accordance with and pursuant to these roles the following guidelines were established to specify to students (both present and prospective) faculty expectations regarding their behaviors

- 1 **Students will attend all class meetings.** There are no automatically "excused" absences. In the event that you will be unable to attend a class session, you should inform your professor in advance as a matter of professional courtesy just as you would/should with an employer.
- 2 **Students will arrive in advance of the beginning of the class session.** Late arrivals are disruptive, inconsiderate and unprofessional. Professors may make arrangements for delinquents, but are not obliged to do so. Those not present at the beginning of the classroom period will be considered absent.
- 3 **Students will not converse among themselves during class except when instructed to do so.** When a student creates a disturbance in the classroom, instructors will either ask the student to desist immediately or speak to the student at the conclusion of class. Repeat offenders will be sanctioned.
- 4 **Students will not leave class before its conclusion.** Early departures are disruptive, inconsiderate and unprofessional. Professors may make arrangements under some circumstance, but are not obliged to do so. Those not present at the conclusion of the classroom session will be considered absent.
- 5 **Students will have procured textbook/materials prior to the first class.** Instruction will begin with the first class meeting and consume the remainder of the class period.

STUDENTS WITH DISABILITIES

Winthrop University is dedicated to providing access to education. If you have a disability and require specific accommodations to complete this course, contact Services for Students with Disabilities at 323-3290. Once you have your official notice of accommodations from Services for Students with Disabilities, please inform me as early as possible in the semester.

ACADEMIC SUCCESS CENTER

Winthrop's Academic Success Center is a free resource for all undergraduate students seeking to perform their best academically. The ASC offers a variety of personalized and structured resources that help students achieve academic excellence, such as tutoring, academic skill development (test taking strategies, time management counseling, and study techniques), group and individual study spaces, and academic coaching. The ASC is located on the first floor of Dinkins, Suite 106. Please contact the ASC at 803-323-3929 or success@winthrop.edu. For more information on ASC services, please visit www.winthrop.edu/success.

OFFICE OF NATIONALLY COMPETITIVE AWARDS (ONCA)

Winthrop University's Office of Nationally Competitive Awards (ONCA) identifies and assists highly motivated and talented students to apply for nationally and internationally competitive awards, scholarships, fellowships, and unique opportunities both at home and abroad. ONCA gathers and disseminates award information and deadlines across the campus community, and serves as a resource for students, faculty, and staff throughout the nationally competitive award nomination and application process. ONCA is located in Dinkins 222B. Please fill out an online information form at the bottom of the ONCA webpage www.winthrop.edu/onca and email onca@winthrop.edu for more information.