



Course CS/SE 4348.HON, Operating Systems Concepts
Professor Ravi Prakash
Term Fall 2016
Meetings TR 11:30 am – 12:45 pm, ECS North 2.120

Professor's Contact Information

Office Phone	(972) 883-2289
Other Phone	(972) 883-2185 (CS Department Phone Number)
Office Location	ECS South 4.210
Email Address	ravip@utdallas.edu
Office Hours	To be decided
Teaching Assistant	To be announced
Other Information	The best way to communicate with me (other than meeting me in my office during the office hours) is through UTD email. Use email to set up appointments outside the office hours.

General Course Information

Pre-requisites, Co-requisites, & other restrictions	Pre-requisites: CS/SE/TE 3340 or equivalent, CS/SE 3376, CE/CS/SE/TE 3345 and a working knowledge of C and UNIX. <i>Programming skills in C/C++ and/or in Java, socket programming skills should make the course even more enjoyable for you.</i>
Course Description	An introduction to fundamental concepts in operating systems: their design, implementation, and usage. Topics include process management, main memory management, virtual memory, I/O and device drivers, file systems, secondary storage management, and an introduction to critical sections and deadlocks.
Learning Outcomes	<ol style="list-style-type: none">1. An understanding of basic elements of computer system hardware.2. An understanding of modern operating systems.3. An understanding of processes4. An understanding of threads5. An understanding of concurrency issues.6. An understanding of simple memory management.7. An understanding of virtual memory8. An understanding of scheduling algorithms.9. An understanding of I/O management10. An understanding of file management.
Required Texts & Materials	Operating Systems Concepts, Ninth Edition, by Silberschatz, Galvin and Gagne, ISBN: 978-1-118-06333-0 (Publisher: Wiley)

Assignments & Academic Calendar

<i>Topic</i>	<i>Chapter number</i>	<i>Number of lectures</i>
<i>Introduction</i>	<i>1, 2</i>	<i>1</i>
<i>Processes</i>	<i>3</i>	<i>2</i>
<i>Threads</i>	<i>4</i>	<i>2</i>
<i>Process Synchronization</i>	<i>5</i>	<i>4</i>
<i>CPU Scheduling</i>	<i>6</i>	<i>3</i>
<i>Deadlocks</i>	<i>7</i>	<i>2</i>
<i>Main Memory</i>	<i>8</i>	<i>2</i>
<i>Virtual Memory</i>	<i>9</i>	<i>3</i>
<i>Mass-Storage Structure</i>	<i>10</i>	<i>2</i>
<i>File System</i>	<i>11,12</i>	<i>3</i>
<i>I/O Systems</i>	<i>13</i>	<i>2</i>

Important Dates and Times	<ul style="list-style-type: none"> • First day of class: <i>Tuesday, August 23, 2016</i> • Midterm Examination: <i>Tuesday, October 11, 2016</i> (during class) • Quizzes: <i>September 13, October 4, November 8 and December 6.</i> • Final Examination: <i>during Finals Week</i> (as per schedule)
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Course Policies

Grading Criteria	<p>Examination 1: 30%, Examination 2: 30%, Programming Projects: 25%, Quizzes: 15%.</p> <p>All programming projects must be demonstrated to the instructor or the TA for the student to receive a grade on them.</p> <p>To pass the course, a student has to pass separately in examinations and programming projects. In order to obtain an “A” or “A-” grade a student must perform above class average in the examinations, as well as above the class average in the programming projects. This is the minimum requirement, and satisfying this requirement does not guarantee an A or A- grade.</p>
Make-up Exams	<p>Make-up examinations will be offered only if the student has a valid medical reason and produces a doctor’s letter.</p> <p>If a student has to be absent for several classes because of job related obligations, he/she will not be eligible for an incomplete grade. In such instances the student is advised to drop the course.</p>
Extra Credit	No extra credit work will be assigned.
Late Work	Programming projects submitted after the due date will be penalized at the rate of 10% of the total credit for that project for every day (not including weekends and holidays) by which they are late. Late submissions will not be accepted once the solution has been discussed in class and the graded submissions have been returned.
Class Attendance	Regular attendance is highly recommended. Unexcused absence in four successive lectures will result in a failing grade (as per the Computer Science

	department's policy)
Classroom Citizenship	The instructor encourages students to take active part in class discussions. No question is too simple/stupid to be asked. So, do not hesitate.
Field Trip Policies	Not applicable.
UT Dallas Syllabus Policies and Procedures	<i>The information contained in the following link constitutes the University's policies and procedures segment of the course syllabus.</i> <i>Please go to http://go.utdallas.edu/syllabus-policies for these policies.</i>

These descriptions and timelines are subject to change at the discretion of the Professor.