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# CS 333

## Operating Systems and Computer Architecture

Spring 2006  
TR 6:30 - 7:40  
HOS-123  
<http://www.cs.moravian.edu/cs333>

**CS 333. Operating Systems and Computer Architecture** (1u). A survey of operating systems issues involving both hardware and software components. Topics covered include processors, interrupts, I/O devices, process management, concurrency, memory management, file systems, and system organization. Prerequisites: CS 222 and 244.

### Instructor

Stephen Corbesero  
PH-213, 610-625-7786  
[corbesero@cs.Moravian.edu](mailto:corbesero@cs.Moravian.edu)  
<http://www.cs.moravian.edu/corbesero>

### Goals

1. Learn the fundamental concepts of modern computer operating systems. This includes the management of processes, memory, and i/o as well as scheduling and security.
2. Become very familiar with the internals of at least one operating system, but to also be aware of others.
3. Acquire some hands-on experience installing and configuring an operating systems.
4. Gain some understanding of the concepts of system performance and tuning within the constraints of the hardware and software capabilities.

### Text

The required text for the course is Modern Operating Systems, 2/e by Tannenbaum. If you are not sure of your background in C, then the C Pocket Reference from O'Reilly and/or The C Programming Language, 2/e by Kernighan and Ritchie may also be quite useful.

### Assignments, Programs, and Tests

Homework and programming assignments will consist problems from the text and class, as well as some C programs.

Tests will include of two hour examinations and a final. There will also be some labwork.

### Computer Resources

The primary computer resource will be the various Mo-CoSIN Sun workstations running the Solaris version of the Unix operating system, but students are free to utilize other (equivalent) computers for developing their programming assignments. However, all programming assignments, unless explicitly stated otherwise, must work correctly and be submitted on the Suns.

In addition, some PCs will be made available for exploring open source operating systems like Linux and FreeBSD.

### Grading Scale

Homework and Quizzes	20 %
Programs and Labs	30
Hour Quizzes	25
Final	25
<b>Total</b>	<b>100 %</b>

### Grading Policies

- Attendance is strongly encouraged, and pop quizzes, which would count in the homework category, have spontaneously occurred. **YOU ARE RESPONSIBLE FOR EVERYTHING THAT OCCURS IN CLASS.** A grade may be changed up to two weeks after an assignment, program, or test is returned. After the final exam, no grades may be contested.

### Homework

Each homework will be graded out of a possible 100 points. Late homework will be penalized according to scale for programs, below, unless a solution has been posted or presented in class, then there will be no credit.

### Programs

- Each program will typically be graded out of 100 points, and then the score will be weighted to reflect its complexity. Programming assignments will consist of small (10-200 lines), medium (200-600), and large (600+ lines) endeavors.
- Programs will be graded on correctness, style, and documentation.
- Late programs will be accepted but will be be penalized according to the following table.

	score modifier
<b>on-time</b>	<b>100 %</b>
no more than 1 class-day late	90 %
up to 1 class-week late	50 %
> 1 class-week late	ZERO

- Unless explicitly stated otherwise, programs are due electronically at 11:59pm on the due date.

## W and WP/WF Grades

If a student drops a course after the last day to withdraw with a “W”, I must assign a “WP” or a “WF” to indicate whether the student was passing or failing at the date of withdrawal. When making that judgment, I will take into account factors such as class attendance, program submission punctuality, etc.

## Tests

No makeup exams will be given. Students missing an hour quiz, in a properly excusable fashion, will be graded out of the remaining percentages. Unless explicitly stated otherwise, the hour quizzes and final are open book, open notes.

## Important Dates

<b>Jan 16</b>	M	First day of classes Martin Luther King Day
<b>Jan 17</b>	T	First class day
<b>Jan 24</b>	T	Last Day to Add/Drop
<b>Feb 16</b>	F	Hour Exam I
<b>Feb 24</b>	F	Midterm
<b>Mar 5–12</b>	S – U	Spring Break
<b>Mar 30</b>	F	Hour Exam II
<b>Mar 31</b>	F	Last Day to Withdraw with a W
<b>Apr 4</b>	T	College Day of Service
<b>Apr 14–17</b>	F–M	Easter Break
<b>Apr 28</b>	F	Last Day of Classes
<b>Apr 30</b>	S	Reading Day
<b>May 1–6</b>	M – S	Final Examinations
<b>May 13</b>	S	Commencement

## Policy on Academic Dishonesty

All work, unless explicitly stated in the problem definition, is to be an individual effort. Students are encouraged to work together so long as the final submission has a single, clearly identifiable author. If necessary, violations of this will be dealt with as a case of academic dishonesty. Please refer to the “Collaboration Policy” statement,

The Dean of Students has far more experience handling these matters, so I reserve the right to assign all cases to him.

## Policy on Computer Abuse

Overall, I encourage creative and curious play on computer systems in general, but I will not tolerate flagrant abuses of other user’s rights. Any such cases will be dealt with very severely.