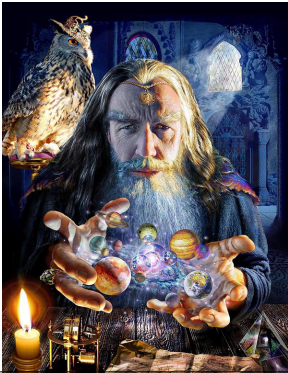# How to be a wizard

Also known as COS 450 & 550
Operating Systems

How to be a wizard

COS 450
Operating Systems

Fall 2018

The Instructor

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My preferred contact is via email. Though for project questions and questions about the course material, the discussion forums in blackboard will provide a better way for us to discuss. It also allows me to share your question and any answer with others in the class. There is also the opportunity that another student can help answer questions too!

The Objectives

What <u>is</u> an operating system,

what does it <u>do</u>,

and how you <u>write one</u>.

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- Describe what the purpose of an operating system is.
- Describe the major challenges in an operating system design and implementation.
- Describe the major functional components of an operating system.
- Describe the typical architectures of operating systems.
- Describe how an operating system is designed and implemented.
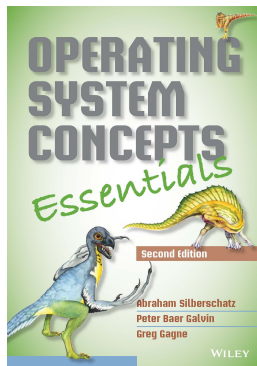
The Textbook

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Operating System Concepts Essentials 2nd Edition 2013, Silberschatz, Galvin, and Gagne.
ISBN-13: 978-1118804926
ISBN-10: 1118804929
Publisher: John Wiley & Sons
Book Website: http://os-book.com

Operating System Concepts 9th edition is an acceptable, but more expensive substitute. The Essentials version has the same but fewer

The Schedule

Introduction

Process Management

Memory Management

File and I/O

Protection and Security

January	February	March
April	May	June
July	August	September
October	November	December

Your Grade

Quizzes*
20%

Projects
45%

Exams
35%
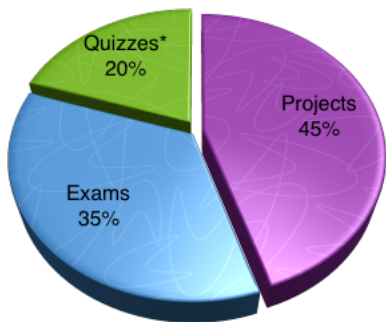
Projects = 45%

Extend the Pintos Operating System

Threads

User Programs

Virtual Memory

File Systems
(COS 550 Only)

HARD
WORK
AHEAD

The projects are the most difficult part of the course. We will spend quite a bit of time in class and in the blackboard discussions working on the projects. You should work in groups of two (2). Individual work is allowed but discouraged.

These projects can be very time consuming, do not wait until the last minute to start or you will surely fail. Each project builds upon the
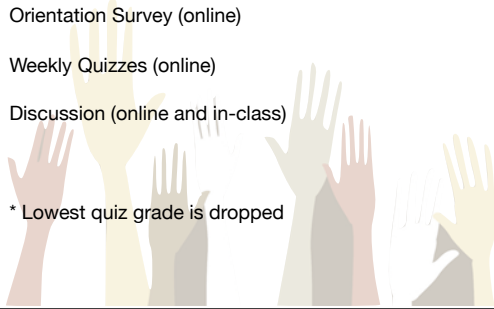
Quizzes = 20%

Orientation Survey (online)

Weekly Quizzes (online)

Discussion (online and in-class)

* Lowest quiz grade is dropped

There are weekly quizzes designed to keep you thinking between class meetings. You will get the best results if you take them mid-way between class meetings, e.g. Saturday or Sunday.

Quiz questions are pulled randomly from the same question pools as the exams. This makes them great practice for the exams!

Exams = 35%

Midterm
Overview, Structure, Processes, Threads, CPU Scheduling, and Synchronization

Final
Main and Virtual Memory, File Systems, Mass Storage, I/O Systems, Protection, and Security

The exams are a combination of multiple choice, true/false, and short essay questions. They are timed, 90 minutes, and will need to be completed in one go.

They are formatted just like the quizzes.

The Resources

Pintos Documentation

usm-cos450-f18.github.io/pintos/pintos.html

Blackboard (grades, assignments, links)

bb.courses.maine.edu

Textbook Companion Site

www.os-book.com

The Internet "tubes"

There is also a file repository on a Google Drive for other miscellaneous documents and files for the course. The link is in blackboard and on http://stephenhouser.com/cos450.

Your Questions

?

Before you ask any questions…

©2001 http://www.deadtroll.com

Your Questions

?

What's on **your** mind?

**Use the Discussion Forums in Blackboard
for questions during the semester.**

End

COS 450 Introduction