

COMP 7970 Storage Systems Syllabus – Fall 2007

MWF 9:00 - 9:50pm, Dunstan 102

Instructor: Dr. Xiao Qin

Phone/Office: 844-6327 / 109 Dunstan Hall

Office Hours: M 10:00-12:00

Email: xqin@auburn.edu

Class Web Page

Announcements are posted on the class web page:
<http://www.eng.auburn.edu/~xqin/courses/comp7970>

Handout, assignments, and important course information will be posted periodically on the class web page, which you have to regularly check.

Prerequisite: COMP 3500 Introduction to Operating Systems or consent of instructor.

Course Information

In this graduate class, we will address advanced topics in the arena of storage systems. We presume that students who will take this class have a basic knowledge of the design of operating systems. This course will be research intensive, aiming at deriving practical and achievable ground rules for storage systems design. Each student is expected to do a project including a written report and an in-class presentation on a topic to be arranged with the instructor. You will be expected to collaborate with other students toward the completion of the research project related to storage systems.

Objectives

Students who have completed this course should be capable of doing the following:

- Understand fundamental issues in storage systems design
- Understand the architecture and characteristics of components on which storage systems are built
- Improve technical writing and oral presentation skills.

Textbook

There are no texts for this course. Handouts, book chapters, and papers will be used as supplement course material. The course material will be posted online.

Topics Covered (These topics may change)

- File systems
- Parallel disk systems
- Scheduling
- Data replication

- Security
- Virtualization
- Distributed storage systems
- Memory-based file systems
- Energy-efficient storage systems

Exams and Grading

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|---------------------|-----|
| Class Participation | 20% |
| Proposal | 20% |
| Progress Report | 20% |
| Presentation | 20% |
| Technical Report | 20% |

Scale

Letter grades will be awarded based on the following scale. This scale may be adjusted upwards if it is necessary based on the final grades.

A+ ≥ 97 A ≥ 93 A- ≥ 90 B+ ≥ 87 B ≥ 83 B- ≥ 80 C+ ≥ 77 C ≥ 73 C- ≥ 70 D+ ≥ 67 D ≥ 63 D- ≥ 60 F < 60

Reading

Students are expected to read assigned papers

Cheating

If you make use of ideas obtained from previous work of another person, you must give credit by commenting in your report, explaining where you obtained ideas, what you have used, and who developed the ideas. If you use any code provided by another person, you must obtain permission from the copyright owner, then comment in your code, including a statement explaining where you found the code and who is the author. Failure to follow these rules will be considered a violation of the Academic Honor Code.