

Comp 7970 Storage Systems

Dr. Xiao Qin

Auburn University
<http://www.eng.auburn.edu/~xqin>
xqin@auburn.edu

COMP 7970, Auburn University

Slide 01-1

High Performance Storage Systems



COMP 7970, Auburn University


Slide 01-2

Today's Goal:

- Course Objectives
- Course Content & Grading
- Introduce you to Storage Systems
- Answer your questions about COMP 7970
- Provide you a sense of the trends that shape the field

COMP 7970: Semester Calendar

See the class webpage for the most up to date version!



<http://www.eng.auburn.edu/~xqin/courses/comp7970>



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Xiao Qin

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Xiao Qin

Assistant Professor of Computer Science

If you are wondering how to pronounce my name click [here](#).

Contact Information: 109 Dunstan Hall
Department of Computer Science and Software Engineering
Samuel Ginn College of Engineering
Auburn University, AL 36849-5347

Office: 1-334-844-6327
Fax: 1-334-844-6329
xqin@auburn.edu

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Teaching

Fall 2007

- [COMP7970 Storage Systems \(New Course Announcement\)](#)

Spring 2007

- CS531 [Advanced Computer Architecture \(New Course Announcement\)](#)
- CS325 [Principles of Operating Systems](#)

Fall 2006

- CS589-6 [Distributed Systems](#)
- CS331 [Computer Architecture](#)

COMP 7970 Storage Systems Fall 2007

Instructor: [Xiao Qin](#)

Office hours: TBD

[General Information](#) | [Announcements](#) | [Syllabus](#) | [Projects](#) | [Lectures](#)

Announcements

- **The [New Course Announcement](#) of COMP 7970 is available. [Posted Friday 6/1/2007]**
- The webpage of COMP 7970 is launched. [Posted Friday 6/1/2007]

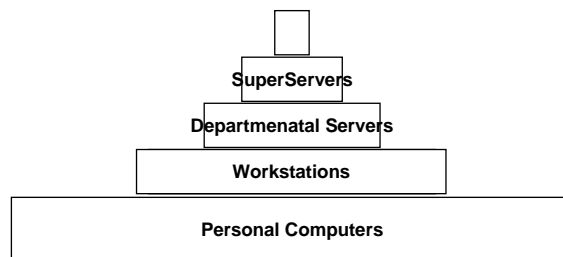
Course Information

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, giving an overview

What will you get out of Comp 7970?

- 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.

Will it be worthwhile?



Will it be worthwhile?



Position	Software Engineer - Storage Systems (Posted on 6/1/2007)
Location	San Jose, CA
Company	IBM
Part of the Job Description	The Storage Systems function at the IBM Almaden Research Center is looking for creative and highly productive software engineers to design and implement storage and data management solutions .

Will it be worthwhile?



where information lives

Position	Managed Svs Storage Architect (Posted on 5/30/2007)
Location	Livonia, MI
Company	EMC Corporation
Part of the Job Description	The architect will be responsible for designing, documenting and maintaining the storage and/or the backup/restore infrastructure in order to meet agreed upon SLAs.

Will it be worthwhile?

Microsoft	
Position	Software Development Engineer (Posted on 6/1/2007)
Location	Redmond, WA
Company	Microsoft
Part of the Job Description	Our mission is to improve the scalability, reliability, operation costs, and agility of engineering Cloud services at Microsoft. We are working on a broad range of technologies for this space including distributed storage , distributed computation, program analysis, and diagnostics.

Topic Coverage

- 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.
- Covers (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

Course Syllabus

- Prerequisite: OS
- no exams
- Grading
 - Class Participation 20%
 - Proposal 20%
 - Progress Report 20%
 - Presentation 20%
 - Technical Report 20%

Course Syllabus (cont.)

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

Office Hours and Exams

Office hours: Monday 10:00-12:00

Am I going to read papers to you?

- **NO!**
- Papers provide a framework and complete background, so lectures can be more interactive.
 - You do the reading
 - We'll discuss it
- Projects will go “beyond”

Questions

Please ask at any time!

