CS 416 and CS 518: Operating Systems Design (Fall 2024)

people.cs.rutgers.edu/~sk2113/cs416/index.html

CS Department, Rutgers -- The State University of New Jersey
Welcome to CS 416 and CS 518 OS Design Course! This course will introduce you to the principles of Operating system design. The course will be a project-intensive course.

Basic Information

- Lecture: Mon, Wed; Time: 5:40pm - 7pm
- Location: TIL-257 (Livingston)
- Instructor: Sudarsun Kannan
- Office: CoRE 311
- Office Hours Monday 2pm - 3pm (tentative)

Book

Operating Sy

Overview

- This course i programming.
- We will use C cover advanced topics, for wh
- **Topics:** See
- **Exams:** Two
- **Projects:** Fo 2 students. You are welcome
- **Assignment** from Sakai quiz to simple pro
- **Lectures:** R akai.
- **Piazza:** We v ects and other offline discus
- **Communica** d all TAs for faster response. Please add a [CS 416] or [CS 518] prefix to your email's subject.
- **CS 416 vs. CS 518** The course content and the syllabus is same for both classes. CS 518 (graduate) students would likely have additional components for exams, projects, and quizzes. In addition, CS 518 students will only have full letter grades (A, B, C, D, F).

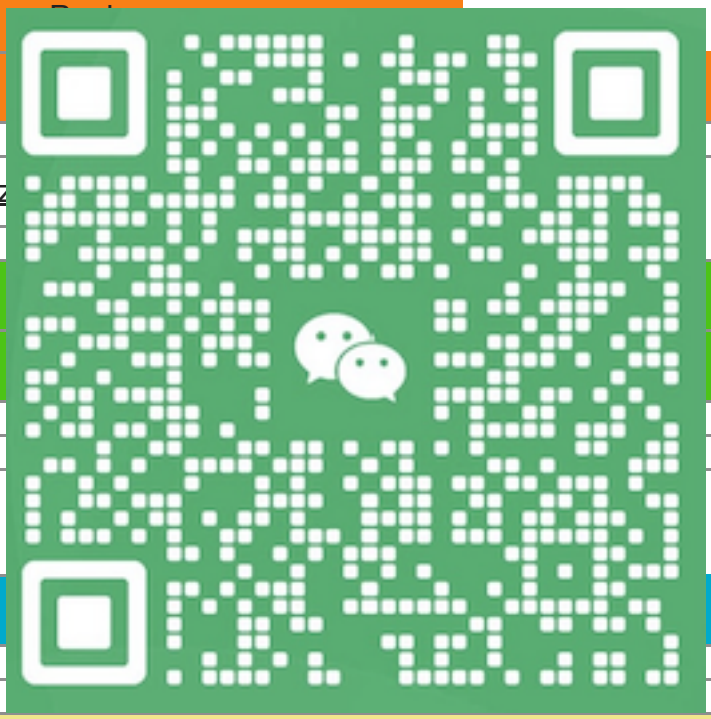
FAQs

- Students are welcome to attend any of the three recitations.
- We will update FAQs as we encounter more questions.

Class News

Syllabus and Tentative Scheduler

Topic		
Virtualization	Intro [code]	CPU virtualization (Chapters 4, 5)
CPU Virtualization	CPU virtualization (chapters 5, 6, 7)	**Warmup Project 1**
Schedulers	Schedulers (chapters 7-11)	Schedulers Continued (chapters 7-11)
Short Online Quiz	Virtualization and Schedulers	
Virtual Memory	Virtual memory	Paging
Virtual Memory		
Virtual Memory		
Short Online Quiz		
Synchronization		
Synchronization		
Midterm Exam (TBA)		
I/O		
File System	File System Basics	File System Impl.
File System	Fast File System	
Crash Consistency	Journaling	LFS



Distributed Systems	MapReduce	Google File System
Acclerators and Trends	TBA	TBA
Final Exam