**Course Mechanics** 

# Outline

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### Website

### Website

https://www.swamiiyer.net/cs451

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https://www.swamiiyer.net/cs451

What's on the Site?

- Announcements (landing page)
- Course Info
- Calendar
- Lecture Material
- Projects
- Resources

Goal

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Theory:

- Scan a program into a stream of tokens
- Parse a program making its syntactic structure explicit
- Analyze and generate code for various programming constructs
- Allocate physical registers to a program expressed in terms of virtual registers

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Practice:

• Develop a compiler (called *j*--) in Java for a subset language (also called *j*--) of Java

# Prerequisites

## Prerequisites

CS310 (Advanced Data Structures and Algorithms)

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CS310 (Advanced Data Structures and Algorithms) and

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CS420 (Intro. to the Theory of Computation) or CS622 (Theory of Formal Languages)

CS310 (Advanced Data Structures and Algorithms) and

CS420 (Intro. to the Theory of Computation) or CS622 (Theory of Formal Languages); or

CS310 (Advanced Data Structures and Algorithms) and

CS420 (Intro. to the Theory of Computation) or CS622 (Theory of Formal Languages); or

Permission of the instructor

Name: Swami lyer (Senior Lecturer, Computer Science Department)

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Academic Interests: Evolutionary dynamics on complex networks, machine learning, programming language design, pedagogy

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Contact Information:

- Office: M-3-201-14
- Email: siyer@cs.umb.edu (start subject line with [CS451])

Name: Swami lyer (Senior Lecturer, Computer Science Department)

Academic Interests: Evolutionary dynamics on complex networks, machine learning, programming language design, pedagogy

Other Interests: Being present, books, food, music, travel

Contact Information:

- Office: M-3-201-14
- Email: siyer@cs.umb.edu (start subject line with [CS451])

Office Hours:

- Tue Thu 10:00 AM 12:00 PM (in-person)
- Wed 10:00 AM 12:00 PM (remote)

## Lectures

## Lectures

Section	When	Where
1	Tue Thu 4:00 PM – 5:15 PM	Y-2-2110

Text



Assessment	% of Final Grade
Projects (1, 2, 3, 5, and best of 4 and 6)	35
Exams (1 and 2)	60
Attendance	5

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Project: extensions to the *j*-- compiler

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Exam: theoretical aspects of a compiler

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If both exam scores  $\geq$  80%, the higher score will be the exam average

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Up to 0.01x% extra points if x% of the class completes the end-of-semester course evaluation

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Exams (1 and 2)	60
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Exam: theoretical aspects of a compiler

If both exam scores  $\geq$  80%, the higher score will be the exam average

Up to 0.01x% extra points if x% of the class completes the end-of-semester course evaluation

If overall score is within 0.5% of a higher grade, it will be elevated to that grade

iClicker

iClicker

Piazza

iClicker

Piazza

Gradescope

iClicker

Piazza

Gradescope

Programming environment

iClicker

Piazza

Gradescope

Programming environment

Zoom

Classroom

Classroom

Piazza

Classroom

Piazza

Excused Absence and Makeup Exam

Classroom

Piazza

Excused Absence and Makeup Exam

Collaboration

Classroom

Piazza

Excused Absence and Makeup Exam

Collaboration

Late Days

Classroom

Piazza

Excused Absence and Makeup Exam

Collaboration

Late Days

Regrade Request

Classroom

Piazza

Excused Absence and Makeup Exam

Collaboration

Late Days

Regrade Request

Accommodations for students with disabilities

#### **Immediate Action Items**

## **Immediate Action Items**

Sign up for CS account

Sign up for iClicker

Sign up for iClicker

Sign up for Piazza

Sign up for iClicker

Sign up for Piazza

Sign up for Gradescope

Sign up for iClicker

Sign up for Piazza

Sign up for Gradescope

Setup the programming environment

Sign up for iClicker

Sign up for Piazza

Sign up for Gradescope

Setup the programming environment

Fill out the questionnaire available on Gradescope