

Outline 1 Website

2 Goal

3 Prerequisites

4 Instructor

5 Lectures

6 Text

7 Grading

8 Software9 Policies

10 Qualities for Success

11 Immediate Action Items



Website

https://www.swamiiyer.net/cs451

Website

https://www.swamiiyer.net/cs451

What's on the Site?

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



Goal

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

Goal

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

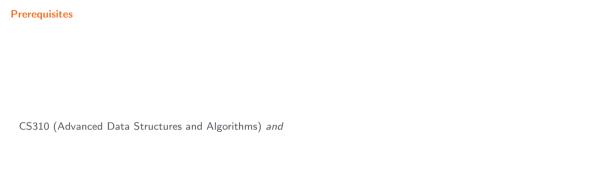
Practice:

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





CS310 (Advanced Data Structures and Algorithms)





CS310 (Advanced Data Structures and Algorithms) and

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 Iyer

Instructor

Name: Swami Iyer

Contact Information:

• Office: M-3-201-14

• Email: siyer@cs.umb.edu

Instructor

Name: Swami Iyer

Contact Information:

- Office: M-3-201-14
- Email: siyer@cs.umb.edu

Office Hours:

- \bullet Tue Thu 9:45 AM 10:45 AM and 2:45 PM 3:45 PM (in-person)
- Wed 10:00 AM 12:00 PM (remote)

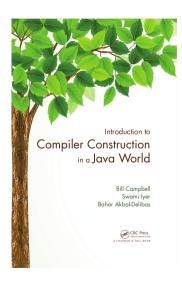


Lectures

	Section	When	Where
-:	1	Tue Thu 4:00 PM - 5:15 PM	M-3-0430



Text





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

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

Project: extensions to the j-- compiler and report

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

Project: extensions to the j-- compiler and report

 ${\sf Exam: \ theoretical \ aspects \ of \ a \ compiler}$

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

Project: extensions to the j-- compiler and report

 ${\sf Exam: \ theoretical \ aspects \ of \ a \ compiler}$

Participation: attendance and involvement in class

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

Project: extensions to the j-- compiler and report

Exam: theoretical aspects of a compiler

Participation: attendance and involvement in class

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

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

Project: extensions to the j-- compiler and report

Exam: theoretical aspects of a compiler

Participation: attendance and involvement in class

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

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

Project: extensions to the j-- compiler and report

Exam: theoretical aspects of a compiler

Participation: attendance and involvement in class

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



Piazza (Q&A)

Piazza (Q&A)

Gradescope (grading)

Piazza (Q&A)

Gradescope (grading)

Programming environment (projects)

Piazza (Q&A)

Gradescope (grading)

Programming environment (projects)

Zoom (remote office hours)



Classroom

Classroom

Piazza

Classroom

Piazza

Collaboration

	Course Staff	CS451/651 Grads	Classmates	Others
Discuss concepts with	✓	✓	√	✓
Acknowledge collaboration with	✓	✓	✓	✓
Expose your code/work to	✓	✓	×	X
View code/work of	Х	X	×	X
Copy code/work from	Х	X	X	X

Classroom

Piazza

Collaboration

	Course Staff	CS451/651 Grads	Classmates	Others
Discuss concepts with	✓	✓	✓	✓
Acknowledge collaboration with	✓	✓	1	✓
Expose your code/work to	✓	✓	×	X
View code/work of	X	X	×	X
Copy code/work from	Х	Х	Х	Х

Academic Honesty

Classroom

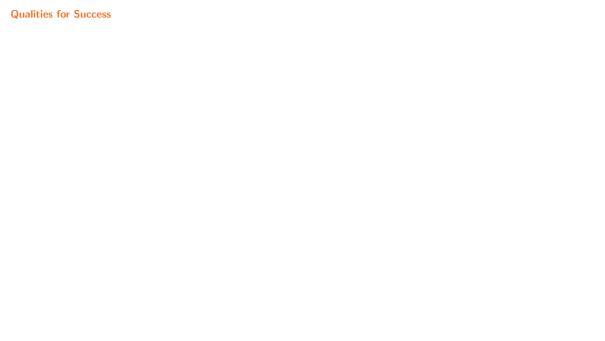
Piazza

Collaboration

	Course Staff	CS451/651 Grads	Classmates	Others
Discuss concepts with	✓	✓	√	✓
Acknowledge collaboration with	✓	✓	✓	✓
Expose your code/work to	✓	✓	×	X
View code/work of	X	X	×	X
Copy code/work from	Х	Х	X	×

Academic Honesty

Accommodations for students with disabilities



Qualities for Success

Qualities needed to succeed in this course and as a programmer in general[†]:

- Curiosity
- Resourcefulness
- Persistence
- Excitement
- Patience
- Concentration
- Independence
- Focus
- Creativity
- Meticulousness

† Taken from the 10 Signs You Will Suck at Programming & by Jonathan Bluks





Sign up for CS account

Sign up for CS account

Sign up for Piazza

Sign up for CS account

Sign up for Piazza

Sign up for Gradescope

Sign up for CS account

Sign up for Piazza

Sign up for Gradescope

Setup the programming environment

Sign up for CS account

Sign up for Piazza

Sign up for Gradescope

Setup the programming environment

Fill out the questionnaire available on Gradescope