Course Syllabus

Jump to Today

Learning Objectives and Overview¶

This course will focus on data structures, software design, and advanced Java. The course starts off with an introduction to data structures and basics of the analysis of algorithms. Important data structures covered will include arrays, lists, stacks, queues, trees, hash maps, and graphs. The course will also focus on software design and advanced Java topics such as software architectures, design patterns, networking, multithreading, and graphics. We will use Java for the entire course.

Prerequisites and Co-requisites¶

CIT 591 or similar.

Student Computer¶

Because of the heavy reliance on online materials, all students are required to have a computer to use. All software in the class is multi-platform, so Windows, Mac, and Linux systems are accommodated. However, students will need to be able to install software onto their computers. Therefore, more limited devices like Chromebooks and tablets (e.g., iPads, Fire) may not be acceptable.

Cellphones are not allowed during lectures.

Texts and Materials¶

All readings, in-class work, and homework problems are freely available in this Canvas site. There is no separate textbook required for this course.

The course content is available **HERE** **(https://canvas.instructure.com/courses/1518207/modules)** .

The course will also use **Eclipse** **(https://www.eclipse.org/)** for composing and executing programs.

Homework and reading quizzes will be automatically graded.

The course will use **GradeScope** **(https://www.gradescope.com/courses/37981)** to grade all programming assignments (recitation and homework).

Office Hours

Professor Eric	

Fouh	R 3:30-5:00PM (except as announced on Piazza) Levine 603
Jayeeta Datta	R 5:00-7:00PM Levine 6th floor bump space F 5:00-6:00PM Levine GRW 5th bump space
Sheng Hu	M 6:00-7:00PM W 5:00-7:00PM Weiss Tech
Saket Karve	T 12 noon to 1:00 PM T 3:00-4:00PM F 6:00-7:00PM GRW 5th bump space
Yang Liu	M 7:00-8:PM Levine 6th bump space R 7:00-9:00PM Levine 6th bump space
Donghan Zhang	R 5:00pm - 7:00pm Weiss Tech F 4:30pm - 5:30pm DRLB A5
Xuanyu Zhou	W 7:00-9:00pm Weiss Tech R 12:00pm - 1:00pm

	Levine 5th floor bump space

Grading¶

Student performance in the course will be evaluated according to the weights in the following table.

Assignment	Percent	Evaluation
Homework	35%	This work is evaluated based on a credible effort to complete each assignment. For best learning homework should be completed by the Due date shown on each assignment. There will be a penalty for excessive and late submissions. -10 points for any submission within 24hrs after the due date -15 points for any submission within 24-48hrs after the due date No submissions after 48 hrs The grade penalty is cumulative.
Exams	30%	There will be three in-class exams. The exams are closed-book. There is no final exam in this course
Final Project	13%	There is one final group project.
Reading Quizzes	10%	This work is evaluated by credible effort to demonstrate understanding of the required readings. Each reading quiz must be completed before the Due date shown on each assignment.
Recitations	7%	This work is evaluated based on a credible effort to complete recitations tasks and recorded attendance.
Pop Quizzes	5%	Six to eight short (30 mins max) unannounced tests will be given during lecture. This work will be completed in small groups and will be evaluated based on participation (60%), correctness (30%) and completeness (10%).

Receiving a passing grade in the class requires good attendance, consistent effort to complete assigned work, and submission of a credible project. Higher grades require increasingly better completion of assigned work and higher evaluations on the project.

Students with Disabilities¶

If you have a disability for which you are or may be requesting accommodations, please contact both your professor and the Office of Student Disabilities Services as early as possible in the semester.

The Office of Student Disabilities Services is available to assist faculty, academic support staff, and students in reaching a joint determination of academic accommodations, where needed.

Weingarten Learning Resources Center
Office of Learning Resources
Office of Student Disabilities Services

3702 Spruce Street, Suite 300
(Stouffer Commons)
Philadelphia, PA 19104-6027

Academic Integrity

Submitted homework must be your individual work.

It is Not OK to:

- Copying or otherwise looking at someone else's code
- Sharing your code in any way (copy-paste, github, paper and pencil, …)
- Using code from a previous semester

Course staff *will* check for copying. We will use plagiarism detection tools on your code.

It is OK (and encouraged!) to:

- Discussions of concepts
- Discussion of debugging strategies
- Verbally sharing experience

For more information refer to Penn's code of academic integrity:
http://www.upenn.edu/academicintegrity/ai_codeofacademicintegrity.html (http://www.upenn.edu/academicintegrity/ai_codeofacademicintegrity.html)

Course Summary:

Date	Details	
Fri Jan 25, 2019	**Algorithm Analysis (written)** (https://canvas.upenn.edu/courses/1439540/assignments/6827376)	due by 11:59pm
	Recitation Week 2: ArraySet (https://canvas.upenn.edu/courses/1439540/assignments/6857675)	due by 11:59pm

Date	Details	
Fri Feb 1, 2019	ArrayList Multimap (https://canvas.upenn.edu/courses/1439540/assignments/6826622)	due by 11:59pm
	Recitation Week 3: LinkedSet (https://canvas.upenn.edu/courses/1439540/assignments/6860676)	due by 11:59pm
Fri Feb 8, 2019	Algorithm Analysis Reading Quiz (https://canvas.upenn.edu/courses/1439540/assignments/6862044)	due by 11:59pm
	Recitation Week 4: Linked-Stack (https://canvas.upenn.edu/courses/1439540/assignments/6860691)	due by 11:59pm
Sat Feb 9, 2019	Linked-List Multimap (https://canvas.upenn.edu/courses/1439540/assignments/6826672)	due by 11:59pm
Wed Feb 13, 2019	Pop Quiz 1 (https://canvas.upenn.edu/courses/1439540/assignments/6912914)	due by 4:30pm
Fri Feb 15, 2019	Recitation Week 5: Deque (https://canvas.upenn.edu/courses/1439540/assignments/6891812)	due by 11:59pm
Sat Feb 16, 2019	Linear Data Structures Homework (written) (https://canvas.upenn.edu/courses/1439540/assignments/6891822)	due by 11:59pm
Fri Feb 22, 2019	Linear Structures Reading Quiz (https://canvas.upenn.edu/courses/1439540/assignments/6862063)	due by 11:59pm
	Midterm 1 (https://canvas.upenn.edu/courses/1439540/assignments/6857756)	due by 11:59pm
Fri Mar 1, 2019	Recitation Week 7: Binary Tree (https://canvas.upenn.edu/courses/1439540/assignments/6917383)	due by 11:59pm
Wed Mar 13, 2019	Pop Quiz 2 (https://canvas.upenn.edu/courses/1439540/assignments/6951087)	due by 4:30pm
Fri Mar 15, 2019	Binary Tree Reading Quiz (https://canvas.upenn.edu/courses/1439540/assignments/6916153)	due by 11:59pm
	Recitation week 8 (https://canvas.upenn.edu/courses/1439540/assignments/6928524)	due by 11:59pm
Sat Mar 23, 2019	File Compression (https://canvas.upenn.edu/courses/1439540/assignments/6826778)	due by 11:59pm
Wed Mar 27, 2019	Midterm 2 (https://canvas.upenn.edu/courses/1439540/assignments/6857757)	due by 11:59pm

Date	Details	
Fri Mar 29, 2019	Recitation Week 10 : UML Class Diagrams (https://canvas.upenn.edu/courses/1439540/assignments/6966146)	due by 11:59pm
Fri Apr 5, 2019	Design Patterns (https://canvas.upenn.edu/courses/1439540/assignments/6958248)	due by 11:59pm
	Recitation Week 11: Hashing (1) (https://canvas.upenn.edu/courses/1439540/assignments/6976567)	due by 11:59pm
Fri Apr 12, 2019	Final Project: Proposals (https://canvas.upenn.edu/courses/1439540/assignments/6974846)	due by 11:59pm
	Recitation Week 12: Hashing (2) (https://canvas.upenn.edu/courses/1439540/assignments/6984680)	due by 11:59pm
Mon Apr 15, 2019	Hashing reading quiz (https://canvas.upenn.edu/courses/1439540/assignments/6972512)	due by 11:59pm
	URL Shortener - Hashing homework (https://canvas.upenn.edu/courses/1439540/assignments/6826783)	due by 11:59pm
Fri Apr 19, 2019	Recitation Week 13: Indexing (https://canvas.upenn.edu/courses/1439540/assignments/6991057)	due by 11:59pm
Mon Apr 22, 2019	Pop Quiz 3 (https://canvas.upenn.edu/courses/1439540/assignments/6993893)	due by 4:30pm
	Final Project: Design (https://canvas.upenn.edu/courses/1439540/assignments/6842540)	due by 11:59pm
Fri Apr 26, 2019	Midterm 3 (https://canvas.upenn.edu/courses/1439540/assignments/6857760)	due by 11:59pm
Sun Apr 28, 2019	Final Project: Interfaces, Tests, and Documentation (https://canvas.upenn.edu/courses/1439540/assignments/6991008)	due by 11:59pm
Mon Apr 29, 2019	Final Project Demo 1 (https://canvas.upenn.edu/courses/1439540/assignments/6988130)	due by 3pm
	Graphs Reading Quiz (https://canvas.upenn.edu/courses/1439540/assignments/6991046)	due by 11:59pm
	Indexing Reading Quiz (https://canvas.upenn.edu/courses/1439540/assignments/6991044)	due by 11:59pm
Wed May 1, 2019	Final Project Demo 2 (https://canvas.upenn.edu/courses/1439540/assignments/6988133)	due by 3pm

Date	Details	
Fri May 3, 2019	**Final Project: Implementation** (https://canvas.upenn.edu/courses/1439540/assignments/6991011)	due by 11:59pm
	Recitation Week 1: Unit Testing, Debugging, OOP Review (https://canvas.upenn.edu/courses/1439540/assignments/6840592)	
	Roll Call Attendance (https://canvas.upenn.edu/courses/1439540/assignments/6831746)	