



SECTION SYLLABUS

CSE/6013

Data Structures Using Java
Summer 2024 – Online

COURSE OVERVIEW

Instructor

Instructor:

Email address:

Class meetings via Zoom:

Office hours: Via Zoom available Mon, Wed and Fri by appointment

Course description

Subroutines and modular programming; searching; basic data structures; introduction to sequential files.

Course learning outcomes

By the end of this course, students should:

- Be competent with modular design and structured programming techniques
- Be competent with commonly used data structures
- Be competent with how to design and implement abstract data types
- Be competent with sequential file I/O

HOW THIS COURSE WORKS

This course is designed to be taken as a hybrid or completely online course. This course is divided into weekly modules that are released one week ahead of time. The material for each

week includes a set of reading materials, practice assignments and programming assignments. Students are responsible for completing each item before its deadline.

Additionally, there are two days of scheduled online lecture meeting each week (Wednesday & Friday). The lectures will be conducted via Zoom and will be used to review and explain weekly material and answer questions. Attendance and participation is tracked via TopHat.

Every other week a quiz will be taken on Carmen. These quizzes are cumulative over the course of the semester. These quizzes are open book, open note but are expected to be SOLO efforts for each student - other students and outside sources beyond the course materials cannot be consulted. See the collaboration, cooperation, and ethics guidelines at the bottom of these policies for more information.

A final project for this class will be required instead of a final exam. The final project will include both a programming assignment and an associated writing assignment where you will be required to explain your work. More details on this assignment will be given later in the semester.

The final grade for this class is going to be solely based on the grade criteria posted in the Syllabus and total number of points earned throughout the semester.

COURSE MATERIALS AND TECHNOLOGIES

Textbooks

REQUIRED

- The course will be using a zyBooks interactive textbook. This can be purchased online directly from zyBooks or a code can be purchased from the campus bookstore.

RECOMMENDED/OPTIONAL

- Cay Horstmann, Java for Everyone Late Objects (2nd edition), John Wiley & Sons, Inc. ISBN: 978-1-118-06331-6;

Course technology

For help with your password, university email, Carmen, or any other technology issues, questions, or requests, contact the OSU IT Service Desk. Standard support hours are available at <https://ocio.osu.edu/help/hours>, and support for urgent issues is available 24/7.

- **Self-Service and Chat support:** <http://ocio.osu.edu/selfservice>
- **Phone:** 614-688-HELP (4357)
- **Email:** 8help@osu.edu
- **TDD:** 614-688-8743

BASELINE TECHNICAL SKILLS FOR ONLINE COURSES

- Basic computer and web-browsing skills
- Navigating Carmen: for questions about specific functionality, see the [Canvas Student Guide](#).

REQUIRED TECHNOLOGY SKILLS SPECIFIC TO THIS COURSE

- CarmenConnect text, audio, and video chat
- Recording a slide presentation with audio narration
- Recording, editing, and uploading video

REQUIRED EQUIPMENT

- Computer: current Linux, Mac (OS X), or PC (Windows 7+) system with high-speed internet connection.
- Other: a mobile device (smartphone or tablet) or landline to use for BuckeyePass authentication

RECOMMENDED (BUT OPTIONAL) EQUIPMENT

- Webcam: built-in or external webcam, fully installed and tested
- Microphone: built-in laptop or tablet mic or external microphone

CARMEN ACCESS

You will need to use [BuckeyePass](#) multi-factor authentication to access your courses in Carmen. To ensure that you are able to connect to Carmen at all times, it is recommended that you take the following steps:

- Register multiple devices in case something happens to your primary device. Visit the [BuckeyePass - Adding a Device](#) help article for step-by-step instructions.
- Request passcodes to keep as a backup authentication option. When you see the Duo login screen on your computer, click “Enter a Passcode” and then click the “Text me new codes” button that appears. This will text you ten passcodes good for 365 days that can each be used once.

- Download the [Duo Mobile application](#) to all of your registered devices for the ability to generate one-time codes in the event that you lose cell, data, or Wi-Fi service.

If none of these options will meet the needs of your situation, you can contact the IT Service Desk at 614-688-4357 (HELP) and the IT support staff will work out a solution with you.

GRADING AND FACULTY RESPONSE

How your grade is calculated

ASSIGNMENT CATEGORY	POINTS
Lecture Self Checks / Homework / Participation Activities	35
Practice Project Assignments	20
Final Project	15
Weekly Quizzes	30
Total	100

See course schedule below for due dates.

Late assignments

Late submissions will not be accepted. Please refer to Carmen for due dates.

Grading scale

93–100: A

90–92.9: A-

87–89.9: B+

83–86.9: B

80–82.9: B-

77–79.9: C+

73–76.9: C

70–72.9: C-

67–69.9: D+

60 –66.9: D
Below 60: E

Faculty feedback and response time

I am providing the following list to give you an idea of my intended availability throughout the course. (Remember that you can call **614-688-HELP** at any time if you have a technical problem.)

- **Grading and feedback:** For large weekly assignments, you can generally expect feedback within **7 days**.
- **Email:** I will reply to emails within **24 hours on days when class is in session at the university**.
- **Discussion board:** I will check and reply to messages in the discussion boards every **24 hours on school days**.

OTHER COURSE POLICIES

Discussion and communication guidelines

The following are my expectations for how we should communicate as a class. Above all, please remember to be respectful and thoughtful.

- **Writing style:** While there is no need to participate in class discussions as if you were writing a research paper, you should remember to write using good grammar, spelling, and punctuation. A more conversational tone is fine for non-academic topics.
- **Tone and civility:** Let's maintain a supportive learning community where everyone feels safe and where people can disagree amicably. Remember that sarcasm doesn't always come across online.
- **Citing your sources:** When we have academic discussions, please cite your sources to back up what you say. (For the textbook or other course materials, list at least the title and page numbers. For online sources, include a link.)
- **Backing up your work:** Consider composing your academic posts in a word processor, where you can save your work, and then copying into the Carmen discussion.

Academic integrity policy

POLICIES FOR THIS ONLINE COURSE

All assignments in this course are SOLO efforts. You may not get assistance from other students for these activities. Read the chapter excerpts, watch the videos, and do your own work!

- The one possibly ambiguous area involves talking to others about homework assignments and about the design, logic, and implementation of a program. You are encouraged to talk with others (especially others in the class) about these things. But do not give anyone or take from anyone written or recorded material, and in all cases please write up your own solution without assistance. If you feel the need to cheat on these rules or are not sure whether some activity would constitute cheating, please discuss your questions with your instructor first!

And just in case it is not clear from the statements above:

- You may not ask for any help on the internet to solve any assignments.
- You may not search on the internet for any solutions to any of the assignments.
- You may not use any partial or complete solution found on the internet to any of the assignments for any reason or purpose.
- All programming must be done using techniques presented and learned in class. Failure to do this will result in zero (0) points. Use of code generators, Chat GPT / any other AI tools or similar is prohibited and will be treated as an academic misconduct. Students can reference online materials as part of additional research but should only reference materials provided in course shell when completing course related work.

The above rules pertain especially to so-called "homework help" websites (eg., chegg.com) that provide answers to problems for a fee. Note that we do know that these sites exist and can compare your answers to solutions provided by these sites. Use of any part of solutions to homework, projects, or labs taken from these websites is considered a violation of the course policies and will need to be reported to the Committee on Academic Misconduct. The fact that the solutions are posted online does not qualify as an excuse to utilize them. Students are expected to follow OSU policies and complete and submit their own work. Please refer to this link for detailed information about the policies: <https://oaa.osu.edu/academicintegrity-and-misconduct/student-misconduct>. As OSU employees, your TAs and instructors are required to follow this policy and to report all potential COAM related incidents to the committee for their evaluation and determination. Students may be notified by e-mail if such an incident is discovered.

I want to remind us that this course is designed to allow all the students a lot of flexibility and support. All learning activities and assignments are posted far in advance and students are

given flexibility in timing on completing the work. Students are given the opportunity to drop some of the lowest scores in case an assignment is missed or cannot be completed (see the syllabus for details). We provide support via email and a wide range of office hours. Students who need help and cannot complete assignments on their own are expected to utilize those support mechanisms.

There is one other rule about professional ethics:

- You may not turn in an assignment solution from a previous semester's offering of the course.

Please note that this last rule applies even if you have previously taken the course and you think it might save you some time to turn in an old solution. Lab assignments may change in subtle ways from one semester to the next. Any homework or lab submission that gives evidence of having been prepared for a previous semester's course offering will receive zero credit. Moreover, if there is reason to suspect you got the questionable solution from someone else who took the course in a previous semester, it will be treated as academic misconduct just as if you had gotten it from someone else who is taking the course this semester.

For other information about the appropriate use of the laboratory computing facilities, please see the official policies for the departmental computing facilities.

OHIO STATE'S ACADEMIC INTEGRITY POLICY

Academic integrity is essential to maintaining an environment that fosters excellence in teaching, research, and other educational and scholarly activities. Thus, The Ohio State University and the Committee on Academic Misconduct (COAM) expect that all students have read and understand the University's [*Code of Student Conduct*](#), and that all students will complete all academic and scholarly assignments with fairness and honesty. Students must recognize that failure to follow the rules and guidelines established in the University's *Code of Student Conduct* and this syllabus may constitute "Academic Misconduct."

The Ohio State University's *Code of Student Conduct* (Section 3335-23-04) defines academic misconduct as: "Any activity that tends to compromise the academic integrity of the University, or subvert the educational process." Examples of academic misconduct include (but are not limited to) plagiarism, collusion (unauthorized collaboration), copying the work of another student, and possession of unauthorized materials during an examination. Ignorance of the University's *Code of Student Conduct* is never considered an excuse for academic misconduct, so I recommend that you review the *Code of Student Conduct* and, specifically, the sections dealing with academic misconduct.

Other sources of information on academic misconduct (integrity) to which you can refer include:

- The Committee on Academic Misconduct web pages ([COAM Home](#))
- *Ten Suggestions for Preserving Academic Integrity* ([Ten Suggestions](#))
- *Eight Cardinal Rules of Academic Integrity* (www.northwestern.edu/uacc/8cards.htm)

Copyright disclaimer

The materials used in connection with this course may be subject to copyright protection and are only for the use of students officially enrolled in the course for the educational purposes associated with the course. Copyright law must be considered before copying, retaining, or disseminating materials outside of the course.

Statement on Title IX

Title IX makes it clear that violence and harassment based on sex and gender are Civil Rights offenses subject to the same kinds of accountability and the same kinds of support applied to offenses against other protected categories (e.g., race). If you or someone you know has been sexually harassed or assaulted, you may find the appropriate resources at <http://titleix.osu.edu> or by contacting the Ohio State Title IX Coordinator, Kellie Brennan, at titleix@osu.edu

Your mental health

A recent American College Health Survey found stress, sleep problems, anxiety, depression, interpersonal concerns, death of a significant other, and alcohol use among the top ten health impediments to academic performance. Students experiencing personal problems or situational crises during the quarter are encouraged to contact Ohio State University Counseling and Consultation Service (614-292-5766; www.ccs.osu.edu) for assistance, support and advocacy. This service is free and confidential.

Religious Accommodations

It is Ohio State's policy to reasonably accommodate the sincerely held religious beliefs and practices of all students. The policy permits a student to be absent for up to three days each academic semester for reasons of faith or religious or spiritual belief. Students planning to use religious beliefs or practices accommodations for course requirements must inform the instructor in writing no later than 14 days after the course begins. The instructor is then responsible for scheduling an alternative time and date for the course requirement, which may be before or after the original time and date of the course requirement. These alternative

accommodations will remain confidential. It is the student's responsibility to ensure that all course assignments are completed.

ACCESSIBILITY ACCOMMODATIONS FOR STUDENTS WITH DISABILITIES

Requesting accommodations

If you would like to request academic accommodations based on the impact of a disability qualified under the Americans with Disabilities Act and Section 504 of the Rehabilitation Act of 1973, contact your instructor privately as soon as possible to discuss your specific needs. Discussions are confidential.

In addition to contacting the instructor, please contact the Student Life Disability Services at [614-292-3307](tel:614-292-3307) or ods@osu.edu to register for services and/or to coordinate any accommodations you might need in your courses at The Ohio State University.

Go to <http://ods.osu.edu> for more information.

Accessibility of course technology

This online course requires use of Carmen (Ohio State's learning management system) and other online communication and multimedia tools. If you need additional services to use these technologies, please request accommodations with your instructor.

- [Carmen \(Canvas\) accessibility](#)
- Streaming audio and video
- Synchronous course tools

COURSE SCHEDULE

This schedule is tentative and may change as the semester progresses. The actual schedule will be posted and maintained in Carmen.

Week	Dates	Topics, Readings, Assignments, Deadlines
1	05/11 – 05/15	<p>Course Introduction, Objects and Classes Review</p> <p>Reading: Ch6, Homework 1</p>

Week	Dates	Topics, Readings, Assignments, Deadlines
2	05/18 – 05/22	<p>Objects and Classes Extended</p> <p>Reading: Ch 8, Homework 2</p> <p>Lab: Classes Review Lab</p>
3	05/25 – 05/29	<p>Classes and Inheritance</p> <p>Reading: Ch 9, Homework 3</p> <p>Lab: Product Class</p> <p>Project: Enhanced Clock due</p>
4	06/01 – 06/05	<p>Interfaces, Catch-up/Review</p> <p>Homework 4</p> <p>Lab: Classes, Inheritance and Polymorphism</p>
5	06/08 – 06/12	<p>Queues and Stacks</p> <p>Reading: Ch 15.1-2, 15.5-6, Homework 5</p> <p>Lab: Classes, Inheritance and Interfaces</p> <p>Project: Product Class and Inventory Report</p>
6	06/15 – 06/19	<p>Queues and Stacks, Sets and Iterators</p> <p>Reading: Ch 15.3 – 15.4, Homework 6</p> <p>Lab: Queues and Stacks Lab</p>
7	06/22 – 06/26	<p>Sets and Iterators, Maps</p> <p>Homework 7</p> <p>Lab: Sets and Iterators</p> <p>Project: Music Play List</p>
8	06/29 – 07/03	<p>Priority Queues</p> <p>Reading: 15.5, Homework 8</p> <p>Lab: Maps</p>
9	07/06 – 07/10	<p>Priority Queues, Testing, Exam Review</p> <p>Homework 9</p> <p>Lab: Priority Queues</p> <p>Project: Queues and Stacks</p>

Week	Dates	Topics, Readings, Assignments, Deadlines
10	07/13 – 07/17	<p>Recursion</p> <p>Readings: 5.9, 13, Homework 10</p> <p>Lab: Testing</p>
11	07/20 – 07/24	<p>Recursion, Sorting</p> <p>Reading: Ch 14</p> <p>Lab: Recursion and Trees</p> <p>Project: Shortest Path</p>
12	07/27 – 07/31	<p>Sorting, Searching</p> <p>Homework: 12</p> <p>Lab: Sorting</p> <p>Final Project due during exam week: Recursion and Trees</p>