

CSE 8B Winter 2021

About the Course

Course Description

Welcome to CSE 8B! We are happy to have you in this course! This course is the second course in a two course sequence of Introduction to Computer Science (CSE 8A is the first course). In this course, you will learn Object Oriented Programming (OOP) using the Java programming language. Specifically, you will learn how to design, implement, and use your own data types using classes and objects. You will also be learning many fun topics like memory model (stack and heap), recursion, interfaces, inheritance, polymorphism, collections, generics, exceptions, etc. We hope that you will have a great time learning these topics this quarter!

Prerequisites

It is expected that you have taken CSE 8A or another equivalent introductory programming course. We understand that CSE 8A was taught in Python in Fall 2020, and we do not assume you have any experience with Java. However, you should have basic knowledge and understanding of how to write simple programs in some language using the following: variables, conditionals (if/else), loops (while, for), arrays or lists (1D and 2D), and methods. You should also have experience testing and debugging simple programs.

Learning Outcomes

Students who successfully complete CSE 8B will be able to:

- Read a computational problem and formulate an algorithm to solve that problem
- Write and document simple Java programs that perform a specific task
- Debug and test Java programs that you or someone else has written
- Read basic to intermediate Java programs to determine their purpose
- Learn about the fundamentals of Object Oriented Programming (OOP) in Java
- Use memory models to trace the state of data during a program's execution

Course Logistics

Instructors and Course Staff

Instructors:

- Sections A&B: Christine Alvarado, cjalvarado@eng.ucsd.edu
- Section C: Greg Miranda, g2miranda@eng.ucsd.edu

TAs and Tutors:

We have a large team of eager tutors and TAs this quarter. You will find a document with their names, photos, email addresses and roles on our Canvas site.

Please use the course discussion board for all course-related questions. Use email only when you need to reach a specific staff member to speak to them personally.

All of the course staff will have weekly office or lab hours. The days, times and locations of the offices hours will be listed on the [course calendar](#). If you cannot make it to these times and are unable to get your questions answered on the course discussion board, or you have a personal matter to discuss with your instructor, please email your instructor to set up an appointment to meet.

Course Meeting Times and Locations

This course has three scheduled “lecture” sections, on Monday, Wednesday and Friday at 8am Pacific Time (C00), 9am Pacific Time (A00) and 10am Pacific Time (B00). Each section also has a scheduled discussion time on Wednesdays: 10am (A01), 11am (B01) and 12 noon (C01). All class and discussion sessions will be remote; Zoom links can be found on Canvas. We strongly encourage you to attend your scheduled class session at its scheduled time, but we understand that there are reasons you might not be able to do so. Class sessions will be recorded and posted on Canvas, though there may be a delay of up to a day.

If you would like to attend a session that you are not registered for on a regular basis, please let the course staff know. (If you just want to attend a different section occasionally, you can just do so).

Course Resources

There are five main resources for this course: Canvas, Gradescope, zyBooks, Piazza and Autograder. You also may choose to use your lab account for this course to complete your work.

Canvas

Canvas will be the main tool used in this course. You will find all assignments, class zoom links, etc here, as well as links to all other resources used in this course. You should start here.

Textbook (required)

You will read and complete interactive exercises in an interactive textbook in zyBooks. You must have your own copy of the book.

We have negotiated the reduced price of \$35 for this book. Unlike other zyBooks you might have used, there is no code to purchase the book directly from zyBooks.com. **You MUST acquire the book through Canvas.** You may choose to buy an access code from the UCSD bookstore (which allows you to use your financial aid) or purchase the book directly from zyBooks once you go through the process below:

Step 1 (optional, but allows you to use financial aid): Buy an access code from the bookstore.

Step 2: Access the book through Canvas. Go to the canvas page for CSE 8B and click on the first assignment (Week 1 zyBooks). Follow the instructions here:

<https://zyBooks.zendesk.com/hc/en-us/articles/360019977494-How-to-submit-assignments-to-Canvas>. When you get to the part that sends you to zyBooks, you will be prompted to purchase the textbook. At this point you will be able to enter your access code (if you bought one) or pay for the book directly.

If you cannot afford the textbook even with your financial aid, please contact the instructors ASAP.

Autograder

We will use autograder.ucsd.edu to manage tutoring hours. We will add you to the class early in Week 1 (before the first tutoring hour). We will post instructions on Piazza about how to use Autograder and what to do if you do not have an account.

Course Discussion Board

We will use Piazza for our course discussion board. (Unfortunately, Canvas's discussion board is not the most user friendly.) Please ask all questions via the course discussion board. Make your post public unless it contains personal information. This will help you get the fastest response possible to your post.

- Sign up link: piazza.com/eng.ucsd/winter2021/cse8b
- Discussion board homepage: piazza.com/eng.ucsd/winter2021/cse8b/home

Gradescope

You will use gradescope (www.gradescope.com) (along with Canvas) to submit your assignments and for some quizzes. You will be added to our course on gradescope automatically sometime during week 1 (before HW1 is due). You should not need to take any action to see the course when you log on.

Coursework and Grades

Assignments/Coursework

Class Sessions (a.k.a. Lectures)

Class sessions will be more than lecture and will include many interactive exercises. The focus of class is to help you understand and make progress on your weekly homework assignments and to reinforce the concepts from the zyBooks pre-class reading.

Discussion Sections

Discussion sections will be led by TAs. They will be a review session to help you prepare for the upcoming weekly quiz, as well as a review of some of the previous week's quiz questions.

Pre-class Reading/Exercises (zyBooks)

In order to facilitate an interactive class session, you will have weekly assignments from zyBooks, which you must access through Canvas. These assignments are graded on correctness, but you get as many chances as you like to get the answers correct. These assignments are due at 8am PST, usually on Mondays at 8am, except in week 1 and when Monday falls on a holiday.

IMPORTANT: Deadlines for zyBooks assignments are listed in Canvas. The deadline listed in zyBooks is the late submission deadline, which will only earn a small fraction of the points.

Weekly Programming/Reflective Assignments

Each week you will have an assignment that will involve programming, testing and reflecting on or explaining your code and your experience. More information will be given in each assignment.

Assignments are due typically on Mondays at 11:59pm. However, each student gets two free "slip days" that allow an automatic 24-hour extension on any single assignment. You do not have to ask to use a slip day. Just submit your assignment after the deadline (but before 24 hours after the deadline) and it will be automatically deducted from your account. You may use only one slip day per assignment.

There will be some assignments or parts of assignments that will be designated as individual only, but for most assignments we encourage you to work together with a partner using a [Pair Programming approach](#) on the programming part of the assignment. If you choose to work with a partner using pair programming, you will submit only one assignment between the two of you. You will also be allowed to submit the assignment up to 24 hours after the deadline without penalty and without using a slip day. You may NOT use an additional slip day beyond this 24 hour automatic extension.

For more details on what collaboration is allowed on programming assignments, see the Collaboration section below.

Star points

Programming assignments are designed to be very open ended. You can usually satisfy the requirements in many ways. If your submitted assignment was particularly innovative, ambitious or creative, you will be awarded a star point for your work.

Star points are not extra credit. If you do "enough" star points and are "close enough" to the boundary, you may be moved up to the higher grade, but do these star point extensions because you are intellectually curious and want a challenge. Not for the grade.

In addition to the Star Points that can be earned on the weekly assignments, we will also reward the top student answerers on Piazza with a Star Point. If you are among the top set of students who answer questions on Piazza, you will earn a Star Point. (We won't get specific about what "top" means, but every quarter there's a few students who rise well above the others in terms of their Piazza response activities).

Weekly Quizzes

Each week you will be given a quiz. You will have 24 hours to complete the quiz from Thursday 8am through Friday 8am, though the quiz itself will be only 1 hour and we expect it to take much less time than that. Quizzes will be on the material from the previous week.

Final Exam

There will be one final exam. It will be a three hour exam, and you will have a 24 hour period in which to complete it. The 24 hour period will start at the scheduled exam time.

Grading

Each component of the course will factor into your grade as follows:

- Weekly (Programming) Assignments: 50%
- zyBooks assignments: 20%
- $\max(\text{Quiz average}, \text{Final exam})^*$: 30%

* Explained below

Grading cutoffs: Full letter grades will be assigned on a standard scale: 90-100=some kind of A; 80-89.9=some kind of B, 70-79.9=some kind of C, 60-69.9=D, Below 60=F. Plusses and minuses will be given at the edges of each range, with exact boundaries determined at the end of the course. For P/NP grading, 70 or above will earn a grade of pass (P), and below 70 will earn a NP. Completion of star points can potentially affect students near the border between two grades and will be considered in assigning A+ grades.

Important grading policies, dropped grades, and ways to make up grades

In this class our goal is for you to learn the material by the end of the quarter. Thus we have many ways for you to earn back lost points as you demonstrate this learning. However, at the end of the day, you must demonstrate proficiency to pass the class.

Ways to recover points:

- 30% of your grade will be based on *either* the average of your quiz scores *or* your final exam score, whichever is higher.
- If you miss an assignment or do very poorly, there will be ways for you to earn back some of the lost credit. These ways will be explained more as class progresses.

How you must demonstrate proficiency to pass: Your grade is calculated as described above, with two exceptions:

- You must score at least 55% on the final exam/quiz average to pass the course. If you score lower than 55% on the final/quiz average, you will receive an F/NP for the course, regardless of your overall average.
- You must score at least 55% on the programming assignments of this course. If you score lower than 55% on the assignments, you will receive an F/NP for the course, regardless of your overall average.

Course Policies

Academic Integrity

In this course we expect students to adhere to the [UC San Diego Integrity of Scholarship Policy](#). This means that you will complete your work honestly, with integrity, and support and environment of integrity within the class for which you are tutoring. Some examples of specific ways this policy applies to CSE 8B include:

- Students may collaborate freely on zyBooks assignments, but may not directly copy answers. Answers entered into zyBooks must reflect the understanding of the student doing the work.
- When pair programming is allowed, students may work collaboratively on assignments with one other student using pair programming. Assignments should be done together over zoom and should reflect the collaborative understanding of both partners. Some

portions of the assignments must be completed individually (this will be indicated on the assignment).

- Except when otherwise indicated (e.g. on exams), students may help each other debug and discuss ideas generally.
- Students may never not copy any portion of code from another student or from the web.
- All work on quizzes and exams must be the student's work individually. Students may use only the resources indicated on the quiz or exam. No unauthorized aids may be used during quizzes or exams.
- Students may NOT look at solutions from any assignments from previous versions of the course. Students may NOT look at exams from previous versions of the course.
- Students may not post any problems or solutions from any homework or exam to any repository or website.

Violating any of the academic integrity policies for this course may result in a reduced grade or a grade of an F/NP.

Collaboration Policy

The main goal of the programming assignments is for you to become a better programmer. You must experience writing your own code for this to really happen.

Pair programming on programming assignments is strongly encouraged. Students who pair program must work together over zoom during all development of the program. If you choose to pair program, you may not work on the assignment without your partner participating, with the exception of doing small amounts of debugging or getting help from the TAs or tutors.

You may discuss your assignment with other students who are not your partner, and you may help them debug, but all code that you submit must be written by you (and your partner) alone.

You may not discuss quiz or exam problems with *anyone* until after the exam or quiz has been graded and returned to you.

Regrade Policy

If you feel that an assignment or exam question has been graded incorrectly, you must submit a regrade request via the gradescope interface within 3 days of receiving your grade. We will consider your request and adjust your score if necessary.

Late or Missed Assignments/Missed Exam Policy

We understand that remote learning and the pandemic has made completing assignments on time challenging for some students. While we expect students to submit work by the deadline, we recognize there are good reasons that students cannot submit on time. (To be clear, there are also bad reasons for this). Here are the policies for late-work:

- zyBooks assignments: zyBooks assignments are typically due on Mondays at 8am PST. Assignments submitted late will lose 15% per day until 5 days after the deadline. Assignments submitted after 96 hours after the deadline will earn no credit.
- Slip days make it possible for you (and your partner, if applicable) to submit your assignment up to 24 hours after the deadline. If you need an extension on an assignment past your allotted slip days, you must contact your (and/or your partner's) pod leader. Together you will make a plan to submit your assignment late and demonstrate your understanding.
- Quizzes and exams must be completed during the 24-hour window in which they are given. They may not be made up.

If you are facing extreme circumstances, please talk to your instructor to see what arrangements can be made.

Technology/Zoom Policy

We expect you to participate in this remote class in the same way that you participate in person, but it can be harder with everyone spread out. Here's what we ask to make the remote classroom experience as productive as possible:

- Keep your camera ON when in breakout rooms. If you cannot do so because of bandwidth or other issues, please let your instructor know. We encourage you to keep your camera on in the full group session as well.
- Be an active participant in class and breakout rooms. Chat to instructors when you have questions or when the instructor asks a question. Use zoom reactions liberally. Don't be afraid to raise your zoom hand. TALK to each other in your breakout room.
- Keep your interaction professional and respectful.

Classes will be recorded and posted on our Canvas site. They will not be posted publicly.

It is critical that you focus during the short period of our classes. Use of technology for any activity not directly related to what is going on in class **MUST** be avoided. This includes, but is not limited to, the following:

- Texting/instagram/snapchat/etc.
- Playing games
- Web surfing
- Watching videos
- Doing homework (including for CSE 8B) or engaging in work for other classes

Outside Tutoring

Individuals are not permitted to approach students to offer services of any kind in exchange for pay, including tutoring services. This is considered solicitation for business and is strictly prohibited by University policy.

Resources for Students

Getting Help

We expect that all students will need help at some point during the quarter. Many resources are available including tutor, TA and instructor office hours (posted on the [course calendar](#)), as well as the course discussion board. We also encourage you to form study groups, but make sure that you adhere to the collaboration policy listed above in this syllabus.

The IDEA Engineering Student Center, located just off the lobby of Jacobs Hall, is a hub for student engagement, academic enrichment, personal/professional development, leadership, community involvement, and a respectful learning environment for all. The Center offers a variety of programs, listed in the IDEA Center Facebook page at <http://www.facebook.com/ucsdidea/> (you are welcome to Like this page!) and the Center web site at <http://idea.ucsd.edu/>. The IDEA Center programs support both undergraduate students and graduate students.

Diversity and Inclusion

We are committed to fostering a learning environment for this course that supports a diversity of thoughts, perspectives and experiences, and respects your identities (including race, ethnicity, heritage, gender, sex, class, sexuality, religion, ability, age, educational background, etc.). Our goal is to create a diverse and inclusive learning environment where all students feel comfortable and can thrive.

Our instructional staff will make a concerted effort to be welcoming and inclusive to the wide diversity of students in this course. If there is a way we can make you feel more included please let one of the course staff know, either in person, via email/discussion board, or even in a note under the door. Our learning about diverse perspectives and identities is an ongoing process, and we welcome your perspectives and input.

We also expect that you, as a student in this course, will honor and respect your classmates, abiding by the UCSD Principles of Community (<https://ucsd.edu/about/principles.html>). Please understand that others' backgrounds, perspectives and experiences may be different than your own, and help us to build an environment where everyone is respected and feels comfortable.

If you experience any sort of harassment or discrimination, please contact the instructor as soon as possible. If you prefer to speak with someone outside of the course, please contact the Office of Prevention of Harassment and Discrimination: <https://ophd.ucsd.edu/>.

Students with Disabilities

We aim to create an environment in which all students can succeed in this course. If you have a disability, please contact the Office for Students with Disability (OSD), which is located in University Center 202 behind Center Hall, to discuss appropriate accommodations right away. We will work to provide you with the accommodations you need, but you must first provide a current Authorization for Accommodation (AFA) letter issued by the OSD. You are required to present their AFA letters to Faculty (please make arrangements to contact me privately) and to the OSD Liaison in the department in advance so that accommodations may be arranged.

Basic Needs/Food Insecurities

If you are experiencing any basic needs insecurities (food, housing, financial resources), there are resources available on campus to help, including The Hub and the Triton Food Pantry. Please visit <http://thehub.ucsd.edu/> for more information.

Consent to Participate in Educational Research

University of California, San Diego

Consent to Act as a Research Subject

Investigating the Impact of Pedagogical Choices on University Student Learning and Engagement

Who is conducting the study, why you have been asked to participate, how you were selected, and what is the approximate number of participants in the study?

Gabriele Wienhausen, Director of the Teaching and Learning Commons, together with her education research colleagues is conducting a research study to find out more about how pedagogical choices affect student learning and experience in the classroom. You have been asked to participate in this study because you are a student in a class that is being studied or used as a control. There will be approximately 500,000 participants in this study.

Why is this study being done?

The purpose of this study is to create knowledge that has the potential to improve the learning and educational experience of students at UC San Diego and beyond.

What will happen to you in this study and which procedures are standard of care and which are experimental?

If you agree to be in this study, the following will happen:

- Your data from this class including grades, homework and exam submissions, and survey responses will be included in the analysis to determine the effectiveness of the pedagogical techniques used in this course compared to other similar courses.

How much time will each study procedure take, what is your total time commitment, and how long will the study last?

Your participation involves only agreeing to let us use your data in our analysis. It will require no time on your part above the time you put into this course without agreeing to the study.

What risks are associated with this study?

Participation in this study may involve some added risks or discomforts. These include the following:

1. A potential for the loss of confidentiality. We will not share your personally identifying data with people outside our research team. Data will only be kept in anonymized form for research purposes. Course data will not be used for this research study until after final grades have been posted and will be rendered confidential by removing any identifiers before analysis. Your instructor will not know whether or not you are participating in this study until after final grades have been posted. Data from students who opt out of the study will be removed prior to data analysis. Research records will be kept confidential to the extent allowed by law. Research records may be reviewed by the UCSD Institutional Review Board.

Since this is an investigational study, there may be some unknown risks that are currently unforeseeable. You will be informed of any significant new findings.

What are the alternatives to participating in this study?

The alternatives to participation in this study are not to participate. If you choose to opt-out of participating in this research study, we will exclude your data from analysis. Whether you participate will have no impact on your experience or grade in the associated class as the professor will not know who is or is not participating in the study until after final grades are assigned.

What benefits can be reasonably expected?

There is no direct benefit to you for participating in the study. The investigator, however, may learn more about how to improve student learning, and society may benefit from this knowledge.

Can you choose to not participate or withdraw from the study without penalty or loss of benefits?

Participation in research is entirely voluntary. You may refuse to participate or withdraw or refuse to answer specific questions in an interview or on a questionnaire at any time without penalty or loss of benefits to which you are entitled. If you decide that you no longer wish to continue in this study before the end of the quarter, simply respond to the online opt-out form here: <https://goo.gl/forms/JSBRjEmkES6W6xYc2>. If you decide to opt out after the quarter has ended, you must contact Laurel Nelson (laureln@ucsd.edu) and give the quarter and the course from which you would like your data withdrawn.

You will be told if any important new information is found during the course of this study that may affect your wanting to continue.

Can you be withdrawn from the study without your consent?

The PI may remove you from the study without your consent if the PI feels it is in your best interest or the best interest of the study. You may also be withdrawn from the study if you do not follow the instructions given you by the study personnel.

Will you be compensated for participating in this study?

You will not be compensated for participating in this study.

Are there any costs associated with participating in this study?

There will be no cost to you for participating in this study.

Who can you call if you have questions?

Gabriele Wienhausen and/or her colleague has explained this study to you and answered your questions. If you have other questions or research-related problems, you may reach Gabriele Wienhausen at gwienhausen@ucsd.edu or (858) 534-3958.

You may call the Human Research Protections Program Office at 858-246-HRPP (858-246-4777) to inquire about your rights as a research subject or to report research-related problems.

Your Consent

If you consent to participate in this study and are at least 18 years old, no action is needed.

If you DO NOT consent to participate in this study, or you choose to opt-out at any time during the quarter, please submit this form online at

<https://goo.gl/forms/JSBRjEmkES6W6xYc2>. Your instructor will not have access to the list of students who opted out until after grades are posted. Note that you must separately opt-out of the study for each course involved in this study.