# **CSE110 - Principles of Programming Spring 2023**

#### **Instructor Info and Office Hours**

**Instructor:** Dr. Maria Elena (Helen) Chavez Echeagaray

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Office Hours: See Get Help - Instructor Office Hours section in Canvas

**Catalog Description:** Concepts of problem solving using Java, algorithm design, structured programming, fundamental algorithms and techniques, and computer systems concepts, social and ethical responsibility.

**Lecture & Lab:** This course is an introductory course to programming using Java language. The course requires no previous background in programming, but does require considerable dedication and hard work. The course concentrates on programming concepts, problem solving, and basic program design. The course consists of an interactive textbook that includes readings, videos, activities, challenges, and assignments, and lab activity.

Required Textbook: CSE 110 Principles of Programming with Java zyBook. This is an interactive electronic textbook (no physical copy required). This textbook is required for the course, and you cannot complete the assignments without it. You can purchase an access key from the ASU Bookstore or purchase your textbook within your Canvas course in the Let's Get Started module.

Extra material and supplemental material may be made available through Canvas and through other course resources like Inscribe.

**Computer Requirements:** This is a fully online course; therefore, it requires a computer with internet access and the following technologies:

- Web browsers (ChromeLinks to an external site., Mozilla FirefoxLinks to an external site., or SafariLinks to an external site.)
- Adobe Acrobat ReaderLinks to an external site. (free)
- Webcam, microphone, headset/earbuds, and speaker
- Microsoft Office (Microsoft 365 is freeLinks to an external site. for all currentlyenrolled ASU students)
- Reliable broadband internet connection (DSL or cable) to stream videos.

Note: A smartphone, iPad, Chromebook, etc. will not be sufficient for completing your work in ASU Online courses. While you will be able to access course content with mobile devices, you must use a computer for all assignments, quizzes, and virtual labs.

Prerequisites: No courses. Basic computer literacy is useful.

Online Expectations: CSE 110 is far more rigorous and challenging than other 100-level courses. If you are taking the course in a 6-week format, you will require about 27hrs/week. It is highly recommended that you should schedule your hours per week as follows:

- 13 hr/wk Content (reading, videos, activities) in required textbook
- 3 hr/wk Lab work
- 8 hr/wk Individual programming assignments
- 3 hr/wk Study Hall and Office Hours

You may find that you personally require more or less time for the specific components listed above, and your efforts may vary from module to module. However, it is highly recommended that you schedule a full 27 hours per week.

## **Major Topics Covered in the Course**

- Introduction to Computer Science and problem solving
- Variables, data types and expressions
- Console input and output
- Methods (with parameters and return values)
- Flow control structures (decisions and loops)
- Arrays and Array Lists
- Array algorithms (including searching and sorting)
- File input and output
- Introduction to Object Oriented Programming

## **Learning Outcomes**

- 1. Develop Java programs using primitive types
- 2. Use predefined classes in their programs such as Math, String and Random classes

- Read and understand Java programs that include multiple methods, control flow, and arrays
- 4. Develop Java programs with multiple classes and writing methods with control flow
- 5. Develop Java programs applying object oriented programming approach
- 6. Understand the use of static methods and variables
- 7. Understand searching and basic sorting algorithms

**Tips for Success:** One does not learn how to program computers by just reading a book and watching videos; Active practice is essential. Students who are most successful in CSE 110:

- Follow the 27 r/wk for the 6-week format schedule recommended in the Online Expectations section of this syllabus above
- Read the upcoming sections in the textbook ahead of time to first introduce terms and concepts,
- Complete every lab and participate actively, post your questions in our InScribe community.
- Review the material in the text again to make sure it is clear,
- Read and begin assignments early so they may ask questions well ahead of the deadline,
- Use the available help systems when help is needed,
- Go to Study Hall and Office Hours,
- Review and study past assignments, and textbook content in preparation for exams.

Course Web Site: All documents associated with this course will be made available through your My ASU Home page and ASU's Canvas portal system. All students who are registered in CSE 110 course should be able to access the course material through ASU's portal. If you experience any difficulty, please contact the ASU Experience Center for technical support. It is your responsibility to access, complete, and submit your assignments from the course Canvas web site. Start working on the assignment as soon as possible. You should start early on your assignments so you can get help in time, if you need it. You should also check the announcement page often as the semester progresses.

**Getting Help:** This course includes a comprehensive set of help resources to support you and to ensure your success. The list of available help resources is provided on the **Get Help** page in Canvas. It is very important that you should seek appropriate help as

soon as possible. If you are struggling with some concept or assignment, do not expect things to get easier or to make more sense as the semester progresses. Take full advantage of the available help resources. Start early on all assignments so that you have time to use the available help resources when you need them and to get the help you will need to be able to complete the assignments on time.

**Assignments and Assessment** (subject to change): Your course grade in CSE 110 will be based on the distribution below. Each item is elaborated upon in the following sections. There is absolutely no group work allowed in this course unless explicitly stated by the instructor.

Textbook Reading Activities	10%
Lab Challenges	10%
Lab Participation	10%
Individual Coding Assignments	20%
First Quarter Exam	<b>05%</b>
Midterm Exam	15%
Third Quarter Exam	<b>05%</b>
Final Exam	25%
1	4000/
Total	100%

**Textbook Reading Activities:** These Reading Activities have fixed due dates. Reading Activities must be completed before the due date passes in order to receive any credit for them. There is **no make-up for any missed Textbook Reading Activity**.

Lab Participation and Lab Challenges: You will not have scheduled lab sessions. You will still have lab assignments, and these will include video instructions that you must follow to complete the lab participation credit. You must complete the Lab Participation activities each week. Lab Participation will help you to complete the Lab Challenge assignments.

No late lab participations will be accepted for any credit. The lowest Lab Participation and lowest Lab Challenge score will be dropped from your final grade calculation – even if that score is a zero.

**There is no make-up for any missed Lab Challenge.** The lowest Lab Challenge score will be dropped from your final grade calculation – even if that score is a zero.

**Individual Coding Assignments:** These Individual Coding Assignments must be **done individually. You may not collaborate** with other students or use any resources outside

of those provided in the course materials. Any use of outside sources like Google (or other search tools), or sites like Stack Overflow, Chegg, Course Hero, etc. will be considered academic dishonesty (i.e. cheating). **Instances of academic dishonesty will be reported to the Dean's office for disciplinary action**, which may include zeros on assignments, a zero in the course, and suspension or expulsion from the school. See the **Academic Integrity** section in this syllabus (below) for more details.

These individual assignments are designed to help you practice the concepts you need to learn in this class. Everything you need to successfully complete each Individual Coding Assignment is provided in the course materials prior to the actual Assignment. These Individual Coding Assignments are designed to be challenging, and you will often struggle to successfully complete them. This struggle is expected and normal. When you are stuck or struggling without progress, your first course of action should be to review the prior course materials in the textbook. If this does not give you the information you need to resume progress on the assignment, then you should engage the provided course help systems that can be found on the **Get Help** page in Canvas. The best advice is that you should start as early as possible on these Individual Assignments, so that you have time to get any help you may need to successfully complete them before the due date passes. No late assignments will be accepted for any credit.

**The lowest Individual Coding Assignment score will be dropped** from your final grade calculation – even if that score is a zero.

#### **Exams:**

There will be multiple exams. We have a first quarter exam as well as a third quarter exam. Beside this, we have the Midterm and Final exams, these exams are comprehensive. Exams may consist of multiple choice, fill-in-the-blank, short answer, programming problems, or any combination thereof. There is **no make-up for any missed exam**. Any use of outside sources like Google (or other search tools), or sites like Stack Overflow, Chegg, Course Hero, etc. will be considered academic dishonesty (i.e., cheating). **Instances of academic dishonesty will be reported to the Dean's office for disciplinary action**, which may include zeros on assignments, a zero in the course, and suspension or expulsion from the school. See the **Academic Integrity** section in this syllabus (below) for more details.

All exams require you to use Lockdown Browser and Respondus. It is the responsibility of the student to install and check that this software properly works on their computer.

As part of the authentication process for taking an exam, students must show either their ASU ID or an official ID, such as their driver license or state ID. It is the responsibility of the student to get a proper ID at the time of the exam.

## **Makeup Policies**

Makeups could be granted due to illness, quarantine or self-isolation related to illness as documented by a health professional and communicated to the instructor as soon as possible by email.

Accommodations due to illness do not relieve students from responsibility for any part of the course work required during the period of absence. Faculty will provide accommodations that may include make-up work.

If there is a disagreement as to whether an absence should be accommodated, the instructor and student should contact the academic unit chair immediately for resolution.

### **Grade Breakdown**

The following scale will be used to determine your final grade:

Final Grade	<u>Percentage</u>				
A+	>=	98%			
Α	>=	90%	and	<	98%
B+	>=	88%	and	<	90%
В	>=	80%	and	<	88%
C+	>=	78%	and	<	80%
C	>=	70%	and	<	78%
D	>=	60%	and	<	70%
E	<	60%			

**No curving or rounding** will be applied to your grades. All students must have a passing grade in both the exam component of the class and the assignments component of the class in order to pass the class.

The grade of "I" (incomplete) can be given ONLY when a student, who is doing otherwise acceptable work (passing grade), is unable to complete a part of work (e.g., the final exam) because of documented illness or other conditions beyond the student's control. In the latter case, the student must discuss with the instructor and complete an

application form from the department before the part of work is due or as soon as the circumstances are known. Please see ASU grading policies at: http://students.asu.edu/grades-grading-policies.

**Grading Appeals:** Any discrepancy or disagreement in grading must be presented to the instructor by email **within one week** (7 days) of your receipt of your graded materials (the due date); otherwise, no grade change will be made. Your email must include the following: Your full name, Your ASU-Rite, your ASU ID#, your CSE 110 course section number, your CSE 110 Lab section #, the name of the assignment in question, and your justification for challenging the grade you received on this assignment.

If the dispute is not resolved with the instructor, the student may appeal to the department chair per the <u>University Policy for Student Appeal Procedures on Grades</u>.

Assignment Submissions: Individual Assignments, Lab Participations, and Lab Challenges will be submitted electronically through the required interactive textbook and/or Cavnas. Please note that submissions by email will not be accepted for any credit. Instructions for submitting assignments will be provided.

Assignment due dates follow Arizona Standard time. Click the following link to access the <u>Time Convertor</u> to ensure you account for the difference in Time Zones. Note: Arizona does not observe daylight savings time.

**Important Note:** The instructor reserves the right to change this grading system as the course progresses and various circumstances develop.

**Withdrawing from the course:** This course adheres to a compressed schedule and may be part of a sequenced program, therefore, there is a <u>limited timeline</u> to drop or add the course.

Consult with your advisor and notify your instructor to add or drop this course. If you are considering withdrawal, review the following ASU policies: <u>Withdrawal from Classes</u>, <u>Medical/Compassionate Withdrawal</u>, and a <u>Grade of Incomplete</u>.

**Communicating With the Instructor:** This course uses a discussion board for general questions about the course. Prior to posting a question, please check the syllabus, announcements, and existing posts. If you do not find an answer, post your question in the relevant channel. You are encouraged to respond to the questions of your classmates.

ASU email is an official means of communication among students, faculty, and staff. Students are expected to read and act upon email in a timely fashion. Students bear the responsibility of missed messages and should check their ASU-assigned email regularly. Email questions of a personal nature to your instructor or assigned TA. You can expect a response within 48 hours. All instructor correspondence will be sent to your ASU email account.

Requirements for Success in this Course: The instructor assumes that you are mature and responsible adults, that you are enrolled in this course because you wish to learn the material, that you will read any assigned readings before class begins, that you will come to class prepared to discuss the reading and ask questions, that you will complete the assignments to the best of your ability on time, that you will actively participate in class discussions, and that you will ask questions about material you find confusing.

The instructor believes that college students must be actively involved in their own learning process, that they cannot just sit and listen to lectures and expect to learn the material, that one of the purposes of college education and the Arizona State University mission is for the student to self-develop skills such as problem solving, independent learning, critical thinking, and effective written and spoken communication. To succeed in this course, you must:

- Be prepared for every class, complete every lab, and pay attention.
- Read the textbook and any assigned readings prior to class.
- Begin and complete the programming assignments well before the due date.
- Prepare thoroughly for and complete every exam.
- Do any additional exercises you must to understand the material.
- If you do not complete an assignment by the deadline, complete it anyway later.
- If you miss points on an assignment or exam, determine why your answer was graded incorrect and learn the correct answers.
- Seek help from the resources available on the **Get Help** page in Canvas, before you are too far behind on your understanding of the subject.
- Check the course Canvas website every day for new announcements, material, and updates.

**Technical Support:** This course uses Canvas to deliver content. It can be accessed through MyASU at http://my.asu.edu or the Canvas homepage at https://canvas.asu.edu.

To monitor the status of campus networks and services, visit the System Health Portal at http://syshealth.asu.edu, To contact the helpdesk call toll-free at 1-855-278-5080.

## **University Policies**

**Student Code of Conduct:** Students are entitled to receive instruction free from interference by other members of the class. An instructor may withdraw a student from the course when the student's behavior disrupts the educational process per Instructor Withdrawal of a Student for Disruptive Classroom Behavior.

Appropriate online behavior (also known as netiquette) is defined by the instructor and includes keeping course discussion posts focused on the assigned topics. Students must maintain a cordial atmosphere and use tact in expressing differences of opinion. Inappropriate discussion board posts may be deleted by the instructor.

The Office of Student Rights and Responsibilities accepts incident reports from students, faculty, staff, or other persons who believe that a student or a student organization may have violated the Student Code of Conduct.

**ASU Online Course Policies:** This is an online course. There are no face-to-face meetings. You can access your course via MyASU. To learn more about online courses please visit <u>ASU Online Course Policies</u>.

All university and college policies concerning withdrawal deadlines, incompletes, audits, and other procedures are in effect for this course. All students are advised to be aware of and to carefully follow these guidelines.

Academic Integrity: Students in this class must adhere to ASU's academic integrity policy, which can be found at <a href="https://provost.asu.edu/academic-integrity/policy">https://provost.asu.edu/academic-integrity/policy</a>). Students are responsible for reviewing this policy and understanding each of the areas in which academic dishonesty can occur. In addition, all engineering students are expected to adhere to both the <a href="ASU Academic Integrity Honor Code">ASU Academic Integrity Honor Code</a> and the Fulton Schools of Engineering Honor Code. All academic integrity violations will be reported to the Fulton Schools of Engineering Academic Integrity Office (AIO). The AIO maintains records of all violations and has access to academic integrity violations committed in all other ASU colleges/schools.

The Student Academic Integrity Policy of Arizona State University requires each student to act with honesty and integrity and to respect the rights of others in carrying out all academic assignments. There are a number of actions that constitute a violation of the policy. These actions in this course include, but are not limited to:

practicing any form of academic deceit;

- referring to materials or sources or employing devices (e.g., audio recorders, crib sheets, calculators, solution manuals, or commercial research services) not specifically authorized by the instructor for use during tests, quizzes, homework, and class activities;
- acting as a substitute for another person in any academic evaluation or using a substitute in any academic evaluation;
- possessing, buying, selling, or otherwise obtaining or using, without appropriate authorization, a copy of any materials intended to be used for academic evaluation in advance of its administration;
- depending on the aid of others to the extent that the work is not representative of the student's abilities, knowing or having good reason to believe that this aid is not authorized by the instructor;
- providing inappropriate aid to another person, knowing or having good reason to believe the aid is not authorized by the instructor;
- submitting the ideas or work of another person or persons without customary and proper acknowledgment of sources (i.e., engaging in plagiarism);
- permitting one's own ideas or work to be submitted by another person without the instructor's authorization, or attempting to influence or change any academic evaluation or record for reasons having no relevance to class achievement
- turning in work/code done by someone else or another pair/group
- copying work/code done by someone else or another pair/group
- writing code together with someone else or with another pair/group (unless expressly allowed by the instructor).

Students should not release (to GitHub, friends, etc.) any of their completed assignments, in order to ensure that they do not cause an AIP violation during a future semester. If a student in a later class submits your work, you and they will be held accountable.

**Copyright:** Course content, including lectures, are copyrighted materials and students may not share outside the class, upload to online websites not approved by the instructor, sell, or distribute course content or notes taken during the conduct of the course (see ACD 304–06, "Commercial Note Taking Services" and <u>ABOR Policy 5-308</u> F.14 for more information).

You must refrain from uploading to any course shell, discussion board, or website used by the course instructor or other course forum, material that is not the student's original work, unless the students first comply with all applicable copyright laws; faculty members reserve the right to delete materials on the grounds of suspected copyright infringement.

In general, the instructor believes learning is a collaborative activity - that students learn best when they work together - and that students should be encouraged to learn from and teach each other.

In completing the Lab Challenges, student collaboration is encouraged and will be permitted as long as each student contributes equally to the work. Failure to abide by these rules will result in a score of zero being assigned to one or more students (if I have a reasonable hunch that one student did all of the work on a Lab Challenge and the other student(s) simply copied it, then the student who did all of the work will receive the assignment score and the other students will be given a score of zero).

**Collaboration on Individual assignments and exams are not permitted**; each Individual assignments and exams must be completed by the individual student.

**Professional and Ethical Behavior:** All students in this class are expected to treat others fairly, with respect and courtesy, regardless of such factors as race, religion, sexual orientation, gender, disability, age, or national origin. In this class, you are expected to contribute to the overall campus climate such that others feel welcome, are respected, and are able to develop to their full potential. This will allow each person to contribute to the success of the class as a whole. ASU and the College of Engineering are committed to maintaining a productive, enjoyable and diverse campus environment.

Students are expected to effectively communicate ideas. Inappropriate language (written and oral) does not effectively communicate your ideas to an audience. Inappropriate language includes not only profanity, but also words that are demeaning to a person or group (racially, sexually, ethnically, etc.). You are expected to participate in the various classroom activities, including:

- coming to each class on time and staying until dismissed;
- following instructions given by the instructor, including actively working on whatever assignment has been given;
- not consuming any food or drink while in the ASU classrooms, and not bringing any open containers of food or drink into the classrooms; and
- avoiding disruptive side conversations.

You are expected to make appropriate use of ASU facilities and property, including:

- leaving a clean work space tables, floors and chairs; all trash picked up and disposed of; treating walls, furniture and floors properly –putting feet on tables and chairs, etc., not writing upon or disfiguring furniture; and
- leaving computers as you would furniture clean and ready to use, without any remaining software, links, screen savers or settings that will offend or impede the efforts of subsequent users.

These are consistent with university-wide behavioral expectations described in the various codes of conduct and policies administered through ASU Office of Student Life - Student Judicial Affairs.

Classroom (remote or in-person) Behavior: Students, faculty, staff, and other individuals do not have an unqualified right of access to university grounds, property, or services. Interfering with the peaceful conduct of university-related business or activities or remaining on campus grounds after a request to leave may be considered a crime. All incidents and allegations of violent or threatening conduct by an ASU student (whether on- or off-campus) must be reported to the ASU Police Department (ASU PD) and the Office of the Dean of Students.

The ASU Student Services Manual (SSM 201-10) permits the instructor to withdraw a student from a course for disruptive behavior with a mark of W (withdrawal) or E (failure). Note that "disruptive behavior" is defined by the instructor, not by the University or the student. Violation of conventional and acceptable classroom behavior will result in the offender being asked to exit the classroom and notification of the offense to the Fulton Schools of Engineering's Dean's Office. A warning may or may not be provided. Any violent or threatening conduct by an ASU student in this class will be reported to the ASU Police Department and the Office of the Dean of Students.

Note that in general, you may sit where you wish. However, the instructor has the right to ask you to sit in a specific seat or move to a different seat at any time during the semester. In the past, I have moved students whom I suspected were cheating during an exam, and I will do so in this course if I believe you are looking at another student's paper or sharing answers during an exam.

Harassment and Sexual Discrimination: Arizona State University is committed to providing an environment free of discrimination, harassment, or retaliation for the entire university community, including all students, faculty members, staff employees, and guests. ASU expressly prohibits discrimination, harassment, and retaliation by employees, students, contractors, or agents of the university based on any protected status: race, color, religion, sex, national origin, age, disability, veteran status, sexual orientation, gender identity, and genetic information.

Title IX is a federal law that provides that no person be excluded on the basis of sex from participation in, be denied benefits of, or be subjected to discrimination under any education program or activity. Both Title IX and university policy make clear that sexual violence and harassment based on sex is prohibited. An individual who believes they have been subjected to sexual violence or harassed on the basis of sex can seek support, including counseling and academic support, from the university. If you or someone you know has been harassed on the basis of sex or sexually assaulted, you can find information and resources at https://sexualviolenceprevention.asu.edu/fags.

As a mandated reporter, I am obligated to report any information I become aware of regarding alleged acts of sexual discrimination, including sexual violence and dating violence. ASU Counseling Services, https://eoss.asu.edu/counseling is available if you wish to discuss any concerns confidentially and privately. ASU online students may access 360 Life Services: <a href="https://goto.asuonline.asu.edu/success/online-resources.html">https://goto.asuonline.asu.edu/success/online-resources.html</a>

Statement on Accommodations: The Student Accessibility and Inclusive Learning Services (SAILS) (480-965-1234 at Matthews Center, email: Student.Accessibility@asu.edu) is the central location for students requiring accommodation. Any student requiring accommodation must contact and register with SAILS before any accommodation requests can be granted by the instructor. If you require accommodation, please contact the Center as soon as possible so the instructor can work with you to ensure your success.

Suitable accommodations will be made for students having disabilities. Students needing accommodations must register with the ASU disabilities resource Center and provide documentation of that registration to the instructor. Students should communicate the need for an accommodation in sufficient time for it to be properly arranged.