SCOTTSDALE COMMUNITY COLLEGE
A MARICOPA COMMUNITY COLLEGE

Syllabus

Course Information

- Semester and Year: Fall 2026
- Course Title: Object Oriented Programming and Data Structures
- Course Prefix and Number: CSC 205AB
- Section Number: 18670 (online)
- Credit Hours: 4
- Start Date: Tuesday, 9/8/2026
- End Date: Friday, 12/18/2026
- Section 18670 (Online)
    - Room Number: N/A – Class is held in Canvas (please see due dates in Canvas)
    - Meetings Days/Times: N/A – Class is held in Canvas (please see due dates in Canvas)
    - Class Format: Online, Asynchronously

Instructor Information

- Instructor: Professor Chris L. Santo
- Email: c.santo@scottsdalecc.edu
- Phone: 480-423-6123 (please use Canvas Inbox instead)
- Office Location: Room CM-425, Google Meet, or Discord
- Office Hours: Please see my faculty profile page for Office Hours https://directory.scottsdalecc.edu/santo-chris

Course Description

Covers Object-Oriented design and programming; elementary data structures; arrays; lists; stacks; queues; binary trees; recursion; searching and sorting algorithms.

Note: Students may receive credit for only one of the following: CSC205 OR CSC205AA OR CSC205AB OR CSC205AC OR CSC205AD

Prerequisites and/or Corequisites

Prerequisites: A grade of C or better in CSC110, or CSC110AB, or permission of Instructor.

Course Competencies

1. Describe how modern Software Engineering techniques are used in program development.
2. Implement programs that use Object-Oriented Programming techniques: classes, aggregate classes, inheritance, interfaces, abstract classes, and polymorphism.
3. Write applications that handle run-time errors by using Exception Handling techniques.
4. Write programs using basic data structures such as arrays, ArrayLists, and Vectors.
5. Implement linked lists, stacks, and queues using Object- Oriented techniques.
6. Implement Binary Search Trees and use recursive methods as part of the implementation.
7. Analyze and compare the efficiency of different searching and sorting algorithms, including algorithms that are implemented recursively.
8. Write applications that read and write text and Object files.
9. Discuss social and ethical issues related to Computer Science.
10. Implement a simple Graphical User Interface as part of an application.

Texts and Course Materials

CSC205AB: Object Oriented Programming and Data Structures
zyBook ISBN: 979-8-203-32261-6
Registration for zyBooks costs $104. Instructions for registration are in Canvas at https://learn.maricopa.edu

zyBooks is a web-based, interactive learning platform that provides textbooks for STEM subjects like computer science, engineering, math, and statistics. zyBooks are designed to replace traditional textbooks with interactive activities and animations and are based on the idea that students respond better to less text and more interactivity.

The following items are required for this class:

- Headphones or working speakers connected to your computer, for viewing videos and communicating with the instructor during online office hours.
- High-speed internet access. A connection capable of streaming audio and video.
- A Windows or Macintosh-based computer capable of installing an IDE that will run the Java programming language. Supported IDEs include Visual Studio Code, Eclipse, Netbeans, Textpad, jGRASP.

Course Policies

The following are policies specific to this course. Students are also responsible for the college policies included on the Student Regulations page of the Maricopa Community College District website.

Late work is not accepted and will be scored as a zero. The due dates for all assignments are listed in Canvas. Assignments directly copied from other students or internet websites will be scored as zero.

Attendance Policy

Participation is required in on-line classes a minimum of once per week. Participation includes academic activities such as: submission of any assignment or posting to a discussion board.

Participation does NOT include: e-mailing the teacher, logging on to Canvas. You may be withdrawn from the course if you do not submit an assignment during any 7-day period.

Instructional Contact Hours and Minimum Course Expectations

Instructional contact hours are the weekly time students spend directly learning with their instructor or course activities. These activities include, but are not limited to, lectures, discussions, labs, group work, and viewing recordings. Instructional contact hours vary by course; refer to the MCCCD course bank for your course's details.

Minimum course expectations include the number of hours students are expected to spend outside of class (weekly) completing coursework. Students are encouraged to use the Time Management Calculator to help estimate their weekly time commitment for classes.

Course Technologies

View the Accessibility Statements & Privacy Policies of the technologies used in this course.

Maricopa Systems

This course uses key Maricopa systems for course management and communication.

- Canvas Learning Management System
- zyBooks
- Student Maricopa Gmail Account

Synchronous Communication Tools

This course implements the use of web conferencing and/or other synchronous course tools.

- This course may use Google Meet, WebEx or Discord web conferencing to meet with the instructor or other students as needed.

Streaming Media/Audio/Video Tools

This course uses webcasting, lecture capture systems, YouTube, and/or other streaming media services.

Student Assignment Tools

Homework such as textbook activities and lab programming assignments are completed on-line through zyBooks. Some lab assignments and all weekly quizzes are completed in Canvas.
This course requires students to participate in or submit assignments using desktop or cloud-based applications.

- zyBooks/zyLabs platform from a standard web browser.
- Java IDE: MS Visual Studio, jGRASP, Textpad, eclipse, Netbeans or similar.
- CSC Discord Server – for collaborating with other students and getting assistance from the instructor or tutors. Link to join the Discord Server: https://discord.gg/bjeebSyPQy

Generative Artificial Intelligence (AI) Policy

The World Economic Forum defines generative AI as “a category of artificial intelligence (AI) algorithms that generate new outputs based on the data they have been trained on. Unlike traditional AI systems that are designed to recognize patterns and make predictions, generative AI creates new content in the form of images, text, audio, and more.”

Some examples of generative AI tools include but are not limited to: ChatGPT, Google Gemini, Microsoft Copilot, Stable Diffusion, GrammarlyGo, and Adobe Firefly.

Some Generative Artificial Intelligence (AI) Allowed in Specific Circumstances

There are situations and contexts within this course where you may be permitted to use generative AI tools. In these cases, specific guidelines will be provided in the assignment details. If you are unsure if the tool or website you are using is a generative AI tool or if it is permitted on a specific assignment, please contact the instructor for further clarification before submitting your work.

All uses of Generative AI to assist with assignments need to be cited in a submission comment. Uncited uses of AI may be considered a violation of academic integrity.

Grading Standards and Practices

Grade Scale

Table 1 Course Grading Scale

Letter Grade	Points Range
A	90 – 100%
B	80 – 89%
C	70 – 79%
D	60 – 69%
F	0 – 59%

Assignments

Table 2 List of Assignments

Assignment Name	Percent of Grade
zyBooks Activities (Ch. 6-19)	10%
zyBooks Labs (Ch. 1-18, 4 GUI Labs)	25%
Discussions (Various, in Canvas)	10%
Projects (Various, in Canvas)	15%
Quizzes (Ch. 6-19)	15%
***Final Exam (in Canvas) (due by 12/15/2026)**	25%
TOTAL:	100%

* - Although the final exam is worth 25% of your overall course grade, it is a required course component. Students who do not complete the final exam will receive a failing grade for the course, regardless of their grade average prior to the exam.

Student/Instructor Interaction

In this course, you can expect regular and substantive interaction (RSI) that aligns with Scottsdale Community College's mission to provide challenging and supportive learning experiences and the US Department of Education's requirement for regular and substantive interaction (RSI) for online courses. My commitment to your success includes the following:

- Being available during regularly scheduled student support hours as stated in the syllabus.
- Sharing weekly information about the course materials, including key information, explanations, examples, and resources via in-person, recorded, and/or text-based lectures.
- Engaging in weekly discussions about course content within discussion boards in Canvas.
- Providing group or individual feedback regularly on assignments.
- Promptly responding to student questions about the course sent via email, or Canvas inbox.
- Regularly posting announcements about the course content and activities.
- Monitor your academic progress and communicate concerns, as needed.

Response Time

Students can expect a response time of **24-48 hours** for the instructor to respond to messages sent via the Canvas Learning Management System. Students can expect assignments to be graded within **one week** of the assignment's due date.

Tutoring

SCC's tutors are available online to help with your courses. You may work with an SCC tutor remotely using Google Meet, your phone, or email. Visit the Tutoring & Learning Centers page for detailed information on the five learning centers' hours and procedures.

If you need to work with a tutor outside regular hours, online and hybrid students now have access to a 24/7 online tutoring service called Brainfuse. To access Brainfuse and begin working with a tutor, visit the SCC Online Tutoring Services Through Brainfuse page.

Informal tutoring from your fellow students and your instructor is available on the CSC (Computer Science) Discord Server. Join the Discord at the following link: https://discord.gg/bjeebSyPQy

MCCCD Policies

MCCCD is committed to providing a safe, fair, and accessible environment for all students. This includes laws such as the ADA and Title IX, which protect against discrimination. These statements explain your rights, available support, and where to go for help or more information. Please review the following policies:

Classroom Accommodations for Students with Disabilities

In accordance with the Americans with Disabilities Act (ADA), the Maricopa County Community College District (MCCCD) and its associated colleges are committed to providing equitable access to learning opportunities to students with documented disabilities (e.g. physical, sensory, neurological, chronic illness, mental health, learning disabilities, or other health concerns). If you require accommodation for this course, please contact Disability Resources and Services (DRS) at your college.

Contact with DRS should be made as soon as possible to ensure academic needs are met in a reasonable time. Additional information can be found in the Non-Discrimination Statement and MCCCD Non-Discrimination Policies.

Addressing Incidents of Title IX Sexual Harassment

Students are responsible for the information contained in this syllabus, the Syllabus page in the Canvas course, and the College Policies & Student Services page located under SCC Student Resources in the Canvas course navigation menu. The instructor will notify students of any changes to course to course requirements or policies.