CHARLESTON SOUTHERN UNIVERSITY

Syllabus | CSCI 235 *Procedural Programming*

Spring of 2026

General Information

Department: Computer Science
Course Name: Procedural Programming
Course Number: CSCI 235
Credit Hours: 4
Major/Minor Credit: Computer Science, Cybersecurity, Applied Computing
LAC Requirement: Computer and Information Sciences
Prerequisites: CSCI 215/217 or instructor's permission, and MATH 110 or higher
Instructors: Prof. Julie Henderson, Dr. Jonathan Sun, and Dr. Sean Hayes

Course Description

In this course, we will study the concepts of computer science using the C++ language. This will include problem-solving techniques, developing algorithms, program design, and testing. Additional topics include the history of computing and ethical issues in computing. Programming constructs include control, repetition, functions, arrays, data types, and file handling. While C++ is an object-oriented language, for this introductory course, we will focus on the procedural aspects of the language only.

Course Materials

Required Materials

Textbook

Malik, D. S. (2018). *C++ Programming: Program Design Including Data Structures*. 8th edition. Stamford, CT: Cengage Learning. ISBN: 978-1-337-11756-2. URL: https://www.cengage.com/c/student/9781337117562/.
You may also choose to purchase the cheaper 7th edition for this course.

Topic materials are expected to be *read before* the in-class discussions. See the Course Schedule.

Free Resources

C++ programming — wikibooks. (2012). [Computer software]. Wikibooks. https://en.wikibooks.org/wiki/C%2B%2B_Programming

C++ reference. (n.d.). Retrieved August 12, 2025, from https://en.cppreference.com/

C++ tutor - visualize c++ code execution to learn c++ online. (n.d.). Retrieved August 12, 2025, from https://pythontutor.com/cpp.html

No other outside sources may be used for assignments unless explicitly approved by the instructor.

Course Objectives

By the conclusion of this course, students will be able to:

- Define an algorithm.
- Develop algorithms for basic computing functions involving iteration, control-flow, files, and functions.
- Analyze a problem description and refine a solution into an algorithm.
- Take a large problem, break it down into smaller parts, solve it, and code it using C++.
- Understand the basic imperative syntax and semantics of C++.
- Translate an algorithm into C++.
- Demonstrate basic debugging capabilities.
- Express the issues involved in an ethical situation involving computing.

ABET Student Outcomes

The following student outcomes are supported by this course. Students completing this course will have an ability to:

1. Analyze a complex computing problem and to apply principles of computing and other relevant disciplines to identify solutions.
2. Design, implement, and evaluate a computing-based solution to meet a given set of computing requirements in the context of the program's discipline.
3. Communicate effectively in a variety of professional contexts.
4. Recognize professional responsibilities and make informed judgments in computing practice based on legal and ethical principles.
5. Function effectively as a member or leader of a team engaged in activities appropriate to the program's discipline.
6. Apply computer science theory and software development fundamentals to produce computing-based solutions.

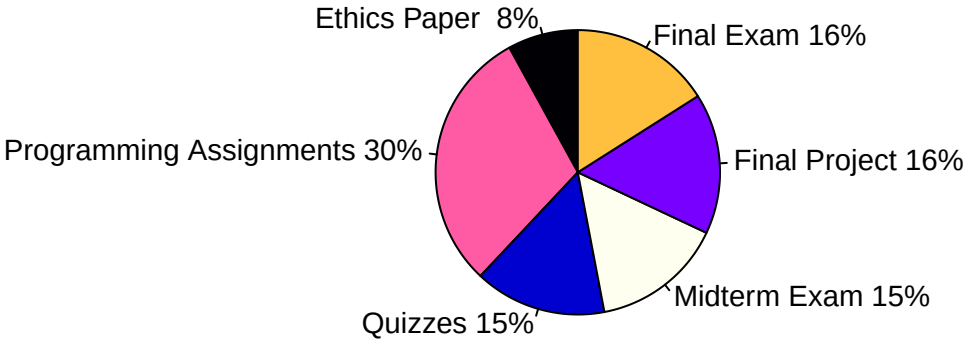
Tentative Weekly Schedule

The weekly schedule is subject to change.

Week	Lecture Topics	Textbook
1A	Syllabus, Schedule, etc.; Creating Algorithms to Solve Problems	CH 1
1B	Computers & Programming Languages	CH 1
2A	Creating & Understanding Simple C++	CH 2
2B	More C++ Basics	CH 2
3A	Standard Input and Output	CH 3
3B	File Input and Output	CH 3
4A	Conditional Expressions (Branching)	CH 4
4B	Boolean Logic, Readability, and Error Checking	CH 4
5A	Repetition (Looping)	CH 5
5B	Randomness and Looping Through Files	CH 5
6A	Midterm Exam	CH 1-5
6B	Creating Functions	CH 6
7A	Scope and Parameter	CH 6
7B	Recursion	CH 6
8A	Function Overloading, Default Parameters, and Static Variables	CH 6
8B	Enumeration (`enum`) Types	CH 7
9	*Spring Break* (No Class)	
10A	The `string` Type	CH 7
10B	Namespaces	CH 7
11A	Introduction to Arrays	CH 8
11B	Applications of Arrays	CH 8
12A	Parallel and 2D Arrays	CH 8
12B	Arrays as Strings and IDEs	CH 8
13	Records (`structs`)	CH 9
14	Review and Final Project	
16A	Final Exam (See CSU's exam schedule for your section's exam time.)	CH 1-9

Grading

Weights



Grading Scale for Letter Grade

Letter grades will be calculated from the following ranges.

Late Work

Deadlines are an inevitable part of life. Meeting deadlines is an important part of becoming a professional computer scientist. To further instill this within each of you, I am making a concerted effort to stick to all deadlines for programming exercises. *Late work will **not** be accepted for a grade.*

The lowest assignment problem grade and the lowest quiz grade will be dropped at the end of the semester. Therefore, if you are a conscientious student and turn in all homework, you will benefit by dropping the lowest score. If you miss one deadline, that grade of zero will be dropped. If you miss multiple deadlines, your grade will be affected. I will look at your late work and let you know how you did if you bring it to me; however, *any and all late work will receive a grade of zero*.

Teamwork

Teamwork is a highly valued skill in the workplace and society. For team projects, the professor will use his/her discretion as to the team members and will direct each team to produce a single solution. The goal is to develop an understanding of what makes teams successful and to be able to be an effective teammate.

Academic Integrity and the Honor Code

All students must adhere to Charleston Southern University's Academic Integrity Policy and the Computer Science Departmental Guidelines. **All assignments** are individual assignments unless explicitly specified by the professor. Do not collaborate, search for posted solutions, or post code online. **You must write every line of your programs.** Do not use **ANY** outside sources of code. Referencing code written by someone else (including AI) or sharing your code (online or in-person) violates the Academic Integrity Policy and will be reported. **Publicly posting related code is prohibited** (e.g., **don't** post to forums, public repositories, chegg.com, etc.). Do NOT look at your neighbor's screen for hints or ask, "How did you do that?", unless you talk to me **beforehand**.

- **NEVER** use an AI tool to generate code for use in an assignment or exam without explicit permission from the instructor for that particular task. As an example, Visual Studio Code extensions that generate code (like GitHub Copile, Tabnine, and Cody) are prohibited.
- **NEVER** look at someone else's code in person or online (chegg.com, forums, email, etc.).
  Do ask your professor if you have questions or get stuck.
- **NEVER** search online for assignment solutions.
  Do only reference code given by the instructor or resources in the Course Materials list.
- **NEVER** exchange code in any manner or tell someone what code they need.
  You may talk to classmates about C++ or assignments without sharing ideas for solutions.

AI Policy for CSCI 235

Level 1. Use of generative AI is *prohibited* in this course.

To ensure development and mastery of the concepts and skills in this course, the use of generative artificial intelligence (AI) tools is prohibited. Students who are unsure of this policy or any assignment-specific directions, including whether a given technology is considered AI, should consult the course instructor before using such technology to complete their assignment.

While proper AI use is an important skill that will be emphasized in other courses, AI misuse short-circuits the learning process to give the illusion of proficiency without the necessary depth. It is unethical to take full credit for work created with the help of AI. This principle is the same as using someone else's idea without citing it.

Review the departmental policies for AI use in Computer Science coursework.

A Community of Honor

> As a liberal arts university committed to the Christian faith, Charleston Southern University seeks to develop ethical men and women of disciplined, creative minds and lives, focusing on leadership, service, and learning. The Honor System of Charleston Southern University is designed to provide an academic community of trust in which students can enjoy the opportunity to grow both intellectually and personally. For these purposes, the following rules and guidelines will be applied.

Academic Dishonesty

> "*Academic Dishonesty*" is the transfer, receipt, or use of academic information, or the attempted transfer, receipt, or use of academic information in a manner not authorized by the instructor or by university rules. It includes, but is not limited to, cheating, plagiarism, and forgery as well as aiding or encouraging another to commit academic dishonesty.

> "*Cheating*" is defined as wrongfully giving, taking, or presenting any information or material borrowed from another source (including the Internet) by a student with the intent of aiding themself or another in academic work. This includes, but is not limited to, a test, examination, presentation, experiment, or any written assignment, which is considered in any way in the determination of the final grade. Using AI in violation of a course or assessment's stated AI protocol is cheating.
>
> "*Plagiarism*" is the taking or attempted taking of an idea, a writing, a graphic, music composition, art, or datum of another person or Artificial Intelligence (AI) tool without giving proper credit and presenting or attempting to present it as one's own, with or without intent. It is also taking written material of one's own that have been used for a previous course assignment and using it without reference to it in its original form. Any use of AI models without proper citation is plagiarism.
>
> Students are encouraged to ask their instructor(s) for clarification regarding their academic dishonesty standards. Instructors will include academic dishonesty/integrity standards, including explicit permissible AI use, on their course syllabi and each individual assignment.

Violations of this policy will result in academic discipline, up to and including University expulsion.

For more information on procedures and violation appeals, refer to the Student Handbook. Click here for additional guidance on academic integrity for Computer Science coursework.

Department and University Policies

LockDown Browser + Webcam Requirement

This course requires the use of LockDown Browser and a webcam for online quizzes and exams. The webcam can be the type that's built into your computer or one that plugs in with a USB cable.

Watch this brief video to get a basic understanding of LockDown Browser and the webcam feature.

Instructions

1. Download and install LockDown Browser.
2. Once installed, start LockDown Browser
3. Log into Blackboard Learn
4. Navigate to the test

Note: You won't be able to access tests with a standard web browser. If this is tried, an error message will indicate that the test requires the use of LockDown Browser. Simply start LockDown Browser and navigate back to the test to continue.

Guidelines

When taking an online test, follow these guidelines:

- Ensure you're in a location where you won't be interrupted.
- Turn off all other devices (e.g., tablets, phones, other computers) and place them out of reach.
- Ensure that you've allotted sufficient time to complete the test before starting.
- Clear your workspace of all unpermitted external materials – books, papers, other devices
- Remain at your computer for the duration of the test
- Run the "Webcam Check" and "System & Network Check" before beginning a test on a different computer, Wi-Fi network, or location.
- To produce a good webcam video, do the following:
  - Avoid wearing baseball caps or hats with brims

  - Ensure your computer or device is on a firm surface (a desk or table). Do NOT have the computer on your lap, a bed, or other surfaces where the device is likely to move.
  - If using a built-in webcam, avoid readjusting the screen's tilt after the webcam setup.
  - Have a well-lit room, but avoid backlighting (e.g., having your back to a window)
- Remember that LockDown Browser will prevent you from accessing other websites or applications; you will be unable to exit the test until all questions are completed and submitted.

Getting Help

Several resources are available if you encounter problems with LockDown Browser:

- The Windows and Mac versions of LockDown Browser have a "Help Center" button located on the toolbar. Use the "System & Network Check" to troubleshoot issues. If a test requires you to use a webcam, also run the "Webcam Check" from this area
- You may Chat with CSU Tech Help 24/7 about any issues you run into.
- Respondus has a Knowledge Base available from support.respondus.com. Select the "Knowledge Base" link and then select "Respondus LockDown Browser" as the product. If your problem is with a webcam, select "Respondus Monitor" as your product
- If you're still unable to resolve a technical issue with LockDown Browser, go to support.respondus.com and select "Submit a Ticket". Provide detailed information about your problem and what steps you took to resolve it.

Weather & Campus Emergencies

In case of adverse weather or other campus emergencies, critical information will be posted on the CSU homepage and pushed to email addresses and phone numbers of those people who have updated their contact information within the BUC Alert System and Blackboard announcements. If you have not yet updated your contact information, or set up course notifications within Blackboard, you should do so immediately.

Continuity of Instruction

During a pandemic or catastrophic event, and after all face-to-face instruction has been suspended, communication for our class will continue to take place through BUC mail and Blackboard. In the event of such an emergency, check your BUC mail account and Blackboards course announcements page for instructions. Students are required to use their BUC mail account to officially communicate with faculty members and university offices regarding coursework and grades.

Attendance

Student participation is crucial for academic success. Students are also expected to check their BUCmail daily and review Blackboard for course announcements.

There will be a class announcement at the beginning of each week detailing the week's work. Stay up to date on these assignments; the more behind you get the less likely it becomes that you will pass the course. Email me as soon as you hit a problem; I am more than happy to help you.

On-Ground

Students are expected to attend course meetings and complete assignments.

Any student who has missed 25% of course meetings will be awarded a grade of FA (Failure due to Absences). In this course, **FA is awarded after missing 7 class meetings**. Three (3) instances of tardiness or leaving class early are equal to one absence. For more information, please see the CSU

Excessive Absence Policy. If you arrive after the roll is called, check in with the professor directly after class so that you will be recorded as tardy instead of absent.

Online

Participation is crucial in an online course. Students are expected to access their course(s) daily and complete readings and assessments. Students are also expected to check their BUCmail daily.

Any student who does not **participate** in this course's academic activities for 28 consecutive days will be awarded a grade of FA (Failure due to Absences). Academic activities include completing assignments, quizzes, and exams (simply logging in does not count as attendance). For more information, please see the CSU's Excessive Absences policy.

Course Evaluations

To pursue our mission of *Academic Excellence in a Christian Environment*, we must receive feedback from students. The student-feedback survey is online and will be available to students in the second half of the semester. Students are strongly encouraged to complete the short evaluation survey, which is anonymous. Your professor will let you know when the survey is available. The survey will be available through your MyCSU account. We greatly value your opinion!

Student Representatives

These are students who are designated by letter to represent the University on official business (e.g., athletic, music, and similar events). If officially scheduled absences cause these students to miss tests, assignments, or similar academic activities, university policy allows these to be made up without penalty. Student Representatives may opt to either make-up tests *before* departure or supplanting missed tests with the final exam grade. Final exams must always be taken *before* departure to avoid an Incomplete for the course. Scheduled assignments remain subject to the lateness policy and must be turned in before departure to avoid lateness penalties. Student Representatives are responsible to inform the instructor of official absences and to make all appropriate arrangements.

Internet Etiquette

Charleston Southern University (CSU) holds students, faculty, and staff to the highest standards of conduct and expects to demonstrate courteous behaviors and practices in online communications. This policy includes guidelines and recommendations for online communications. Being respectful, thoughtful, meaningful, and ethical are fundamental to good netiquette.

CSU's basic netiquette rules are:

- Course communications are for internal use only and considered confidential. Do not forward or quote discussion posts, emails, or other course communications to outside parties.
- Never share personal login usernames, IDs, or passwords.
- Do not type in all capital letters. It is perceived online as shouting.
- Use proper capitalization, grammar, spelling, and punctuation conventions for professional communications.
- Avoid texting jargon or abbreviations without explanation.
  - Incorrect: "CSU is a wonderful university."
  - Correct: "Charleston Southern University (CSU) is a wonderful university."
- Be mindful of sending emails. Ensure that content is relevant and pay attention to *Reply* versus *Reply All*.

- BucMail is the only email allowed for course communications. Other platforms (Yahoo, Gmail, etc.) are prohibited.
- In video conferencing, mute your microphone when not speaking.
- Differing views are natural and welcome in discussion boards. Be respectful in your comments, even if you disagree or dislike someone's position.
- Respect the time and availability of students, faculty, and staff. Address emails within 24 hours of receipt. Keep in mind that traditional faculty work hours are 8 a.m. – 5 p.m. EST.

Accessibility Services

Any student who may need accommodations should review the requirements/procedures on the Accessibility Services website. Once approved to receive accommodations, the student must contact the instructor.

Title IX: Confidentiality and Responsible Employee Statement

Charleston Southern University is committed to maintaining a safe learning environment for everyone. In accordance with Title IX of the Education Amendments of 1972, the university prohibits any form of sexual harassment, including quid pro quo harassment, hostile environments, sexual assault, dating/domestic violence, and stalking. This policy applies to all students, employees, and visitors.

Additionally, Title IX prohibits discrimination against students based on pregnancy, childbirth, false pregnancy, termination of pregnancy, or recovery from these conditions. Pregnant or parenting students may receive accommodations to ensure their full participation in educational programs. These adjustments can be arranged through the university's Title IX Coordinator or their designee.

Under Charleston Southern University's Title IX Policy, all faculty members, including teaching assistants, are required to report any disclosures of sex or gender-based discrimination or violence to the Title IX Coordinator. The Title IX Coordinator will provide support and resources while maintaining privacy. If you or someone you know needs assistance, please contact the Title IX Coordinator:

Summer Cora
(843)-863-7374
titleix@csuniv.edu
Office Location: 2nd floor of the Student Center

Please visit the CSU Title IX webpage for more information on Title IX procedures, anonymous reporting, or available support.

See all course, department, and university policies located in Blackboard and the CSU Student Handbook.