

University of Rhode Island
Department of Computer Science
Syllabus for CSC106 *The Joy of Programming*
J-Term 2022

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Course Web Site: <https://web.uri.edu/brightspace/>

Description: The art of problem solving through computer programming. Students explore innovative and cutting edge applications that include mobile apps, multimedia, computer games, graphics, and animation.

Student Learning Outcomes. After successfully completing CSC106 a student should be able to:

- Translate an informal problem description into a well-formulated statement.
- Investigate solutions to various computing problems within a specified application domain.
- Design computing solutions for various problems.
- Implement computing solutions using a given programming language.
- Debug computing solutions.
- Communicate a solution strategy for the various problems considered in class.
- Successfully move on to more advanced programming courses.

Time Commitment. This course is offered in J-Term, which is only 3 weeks long (January 3 to January 23). This is a short amount of time to conduct a four credit course so it is important that you **start work early** and do not fall behind. Please expect to spend 6 to 8 hours a day on the coursework during the week and 6 to 8 hours on the coursework over each weekend.

Course Format.

This is an asynchronous online course run through URI's Brightspace learning management system. It can be completed from anywhere with a computer and Internet connection. The course involves the use of a forum, video lectures, readings, assignments, and quizzes that are

organized into Bi-weekly Lessons and can be accessed from the course website. New lessons will be released on Mondays and Wednesdays in the course.

- **Lectures/Readings/Exercises:** CSC106 uses the Khan Academy materials from their online courses:
 - *Intro To JS Drawing and Animation*
 - *Advanced JS Games and Visualizations*

These materials consist of video lectures streamed online, online readings, and exercises done in the Khan Academy online programming environment.

- **Quizzes:** There will be a quiz released typically each Wednesday and Friday during the course on the readings and lectures assigned for that bi-weekly module. Quizzes are open notes; that is, you can use written/typed notes that you take when watching the lectures and doing the readings. Your notes are the only resource you may use to assist you on quizzes. All quizzes are timed (usually 5 minutes) and each quiz will typically be active from 6am until 11:55pm the day of the quiz. All required readings and lectures must be completed before accessing the quiz. No makeup quizzes will be given. You are expected to have a reliable Internet connection while taking the quiz (makeup quizzes will not be given for lost Internet connection).
- **Assignments:** There will be 4-6 homework assignments that require you to demonstrate skills and concepts in the course. Assignments will typically be posted on Mondays and Wednesday and due by 11:55pm 3-4 days later. Assignments are turned in by you uploading them to Brightspace. Assignments will be graded by the teaching assistants with feedback provided by a rubric returned to you in Brightspace.
- **Forum:** You are expected to read the Forum several times per week. There will be required forum posts. You may also post questions and help to answer other student questions. Helpful responses to questions will positively affect your class participation grade.
- **Final Exam:** There will be a final exam on Friday Jan 21, 2022. It will cover all of the concepts that are in the learning objectives for the lessons. It will be approximately 1hr and will use the Brightspace quiz mechanism.

Getting Help.

- Use the Forum for questions on assignments and course material.
- Use the online help sessions described in the Help Sessions section of the Course Materials module in Brightspace.
- Email the TA for questions concerning grading at csc106s1@gmail.com.
- Email the Instructor for all other matters.

Required Texts/Readings.

There is no required textbook for this course. All readings will be available from the course website.

Equipment And Software.

- You must have access to a decent computing device (Windows computer, Mac computer, Linux computer, Chromebook, Tablet - all work) that can get on to the Internet. The device must have sound so you can listen to the video lectures.
- All software runs in a browser, you do not need to install any special software for this course. You must have the Chrome browser installed. We recommend having Firefox installed as a second browser that may be useful. *Safari, Internet Explorer, and Edge are not to be used in this course.*

Course Grading.

Grades will be determined based upon the following weights:

- Assignments: 50%
- Quizzes: 20%
- Final Exam: 20%
- Participation: 10% This is a subjective portion of your grade based on your participation in the forum, your doing the course material, and the assessment by the instructor of your meeting the learning objectives of the course.

Grading Questions.

Your grades will be regularly posted in the online Brightspace Gradebook. Questions on grading should be made in writing (email is acceptable) to the TA within one week of receiving the grade. If the question cannot be resolved with the TA, the question should be made in writing to the instructor. Students have one week from the time the grade is posted to challenge the grade. After one week, these grades become "frozen" and cannot be challenged.

Late Policy.

Assignments must be submitted in Brightspace, in the correct format, by midnight of the due date (unless otherwise specified). If you need an extension on an assignment's due date, you must request it from a CSC106 staff member well in advance of the due date.

Late penalty point deductions:

- 1 day late = 5% of total assignment points
- 2 days late = 10% of total assignment points
- 3 days late = 15% of total assignment points
- 4 + days late - Assignment will not be accepted

No assignment will be accepted more than three days late without a valid excuse (weekends only count as one day). *A computer malfunction is not a valid excuse.* To avoid problems with computer malfunctions, start early, save work regularly, and maintain backup copies in several places.

Typical Grade Scale. This uses the overall weighted average of the graded components in this course using the weights listed above. This scale is just typical, and may be modified by the instructor.

- A = 94-100
- A- = 90-93
- B+ = 87-89
- B = 83-86
- B- = 80-82
- C+ = 77-79
- C = 73-76
- C- = 70-72
- D = 60-69
- F = 0-59

Disability Accommodations.

Any student with a documented disability is welcome to contact me as early in the semester as possible so that we may arrange reasonable accommodations. As part of this process, please be in touch with Disability Services for Students Office at 330 Memorial Union, 401-874-2098.

Academic Integrity.

Assignments are to be the result of your individual efforts, unless you are told otherwise. It is easy to copy material on the computer; such copying constitutes plagiarism. We employ software to check for code plagiarism and the teaching staff actively evaluates student work to determine if it has occurred. See the University Manual for more information about the potential consequences of cheating. <https://web.uri.edu/manual/chapter-8/chapter-8-2/>."

For programming: While you may discuss general solutions and algorithms with classmates, you are not allowed to:

- share code with other students
- look at any other student's code
- use code provided to you by anyone else
- use code that you find on the Internet.

If you use code that has been provided for you by the instructor, or that you have used in a prior assignment, include in your comments where the code came from, and describe how the code works. If you ever have a question about what is acceptable when working on a programming assignment, please contact your instructor.

Expected Course Schedule. This is the initial course schedule. The current course schedule, with specific due dates, will be updated on the course Brightspace site.

- Class starts Monday Jan 3
- Week 1A Intro To Programming, Drawing, Animation, Text - Quiz Wednesday Jan 5, Assignment due Thursday Jan 6

- Week 1B: Math Expressions, Resizing, Functions - Quiz Friday Jan 7, Assignment due Monday Jan 10
- Week 2A: Conditionals, Logic, Debugging - Quiz Wednesday Jan 12, Assignment due Thursday Jan 13.
- Week 2B: Looping, Clean Code, Arrays - Quiz Friday Jan 14, Assignment due Monday Jan 17
- Week 3: Object Oriented Programming | Game Programming | Next In Computer Science - Final Exam Friday Jan 21, Assignment due Sunday Jan 23.