CIS 10A – Spring 2023
Introduction to Programming

Instructor

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Office Hour: Mon 2:30 – 3:50 PM Online

Course Description

Catalog Description

This is an introductory course on programming using the C++ language. Students will learn how to specify, design, implement, test, debug, maintain and document well-structured computer programs.

Specific topics include software engineering, control structures, functions, and arrays. Intended for both computer science majors and for those seeking a general introduction to computer programming.

Course Details

Term: Spring 2023
Course name: Introducing to Programming
Course number: CS 10A
Section number: 5311
Lectures: Online
Labs: Online
Prerequisite: The ability to work with computers and access to the internet.
Recommended: Math equivalency to Algebra II (e.g., MATH 155 at **SRJC**).

This is a fully online ***asynchronous*** class, allowing the student to work according to their schedule to meet the weekly requirements outlined by the course instructor.

Course Objectives

Students will be able to:

1. Create correct and efficient algorithms.
2. Describe the software-development life cycle.
3. Employ the basic elements of the C++ language.
4. Implement algorithms using C++ flow-control constructs.
5. Write descriptive and helpful program documentation.
6. Implement algorithms using arrays.

Student Learning Outcomes

Upon successful completion of this course, a student will be able to:

1. Describe the principles of structured programming and be able to describe, design, implement, and test structured programs using currently accepted methodology.
2. Explain what an algorithm is and its importance in computer programming.

Required Textbook

Starting Out with C++ From Control Structures to Objects (9 Edition) by Tony Gaddis.

Textbook is available at the College Bookstore.

Software Requirement

For this course you will need access to an ANSI compatible C++ compiler. I will be using the Gnu C++ compiler (Linux). You may want to use MicrosoftVisual Studio/C++ for Windows user and Xcode for Mac users. If you are facile on another **I**ntegrated **D**evelopment **E**nvironment (IDE), you are welcome to use that instead.

Grading Policy

There will be ten requirement programming assignments. There is one optional eleventh programming assignment that can be used to replace a prior low programming assignment score. Assignments will be turned in online.

Your grade is determined by:

Activity	Points	Percentage
Programming labs (10 @ 20 points)	200	45%
Quizzes (2 @ 10 points)	20	4.5%
Graded Discussions (2 @ 10 points)	20	4.5
Midterm Exam1 (1 @ 100 points)	100	23%
Final Exam (1 @ 100 points)	100	23%
Total Points	440	100%

Grading Scale

Letter Grade	Lower %	Upper %
A	90%	100%
B	80%	89%
C	70%	79%
D	60%	69%
F	0%	59%

Course Expectations

Attendance Policy

Regular attendance is required. Students may be dropped as a ***no-show*** for not postinga first week sign-in introduction.
Students may be dropped for non-participation as measured by the following:

- Not submitting the first assignment
- Missing two consecutive lab submissions
- Missing a midterm exam
- Missing three total lab submissions

Withdrawal from a class or classes must be completed by the student. It is the student's responsibility to be aware of deadlines.

Late Work

Late labs are accepted up to 2 days late with a two-point penalty for each day late. This is a way to help keep you on track to meet our course learning objectives.

Late quizzes and exams are not accepted so please plan accordingly.

Course Logistics

Course material will be provided in Canvas including announcements, discussions, lecture notes, video links, programming assignments, and exams. There are no required on-campus meetings. Starting the 2nd week, an assessment (programming assignment, quiz, graded discussion or exam) will be due weekly.

Course Communication

Active online forum topic and lab discussions are available weekly. I am available daily weekdays via the Canvas discussion forums and Canvas Inbox Private message.

Private Messages

Please use "public" Discussions for any question or comment that relates to the class – this helps everyone to learn. If you have a confidential question (grades or registration)use the Canvas Inbox Private Message Tool.

Checking my Messages

The best way to get a hold of me is through sending a "private message" via the Canvas Conversation Inbox tool.

Help Resources

Computer Science Support

SRJC Tutorial Centers

- The Santa Rosa Junior College Tutorial Centers provide tutoring for SRJC students needing assistance with coursework.
- **Step-by-step guide** on how to access.
- **Online Tutoring at SRJC video**

NetTutor - Students needing academic assistance outside of the SRJC Tutorial Center hours, will continue to have access to NetTutor online tutoring 24-7.

Online Learning Support

SRJC Online Learning provides a **student help desk** with topics such as how to get a student email account, how to register for an online class, where your online class website is located, how to find your class homepage, how to contact your instructor, etc.

Disability

This course is designed to be welcoming to, accessible to, and usable by everyone, including students who have a variety of learning styles, have disabilities, or are new to online learning. To obtain disability-related accommodations, new students entering college who need assistance should contact the **Disability Resource Center** for a pre-enrollment interview to determine support services needed.

Equity

The faculty at Santa Rosa Junior College affirm that students are entitled to an equitable learning environment that celebrates their voice, fosters their agency, and develops their capacity for self-advocacy, and that is free of unfair practices. If you feel you are in an environment that is not conducive to your learning or, you want to learn more about educational equity, please contact me. You may also contact the college **Office of Student Equity** to explore your options.

Course Outline

Week	Dates	Reading Assignment (Gaddis Textbook)	Lecture Topic	Tasks (Assignments/Quizzes/Exams) Deadline to Submit 11:59PM
1	1/18 – 1/22	Handouts	Course Introduction Compiler Installation	***Welcome!***
2	1/23 – 1/29	Ch 1	Introduction to Computers and Programming	Graded Discussion 1 due 1/24
3	1/30 – 2/05	Ch. 2	C++ Basics	Quiz 1 due 1/31
4	2/06- 2/12	Ch. 3	Expressions	Assignment 1 due 2/07
5	2/13 – 2/19	Ch. 3	Interactivity	Quiz 2 due 2/14
6	2/20 – 2/26	Ch. 4	Introduction to Making Decisions	Assignment 2 due 2/21
7	2/27 – 3/05	Ch. 4	Making Decisions in more Depth	Assignment 3 due 2/28
8	3/06 – 3/12	Ch. 1-4	Review Chapters 1-4	Assignment 4 due 3/07
9	3/13 – 3/19	Ch. 5	Introduction to Loops	**Midterm 3/14**
	3/20 – 3/26		***Spring Break!***	
10	3/27 – 4/02	Ch. 5	Loops Continued; Introduction to File Processing	Discussion 2 3/28
11	4/03 – 4/09	Ch. 6	Introduction to Functions	Assignment 5 due 4/04
12	4/10 – 4/16	Ch. 6	Data Passing; User Defined Functions	Assignment 6 due 4/11
13	4/17 – 4/23	Ch. 7	Introduction to Arrays	Assignment 7 due 4/18
14	4/24 - 4/30	Ch. 7	Multi-dimensional Arrays	Assignment 8 due 4/25
15	5/01 – 5/07	Ch. 13	Introduction to Classes	Assignment 9 due 5/02
16	5/08 – 5/14	Ch.14.1	Object-Oriented Programming Design Strategies	Assignment 10 due 5/09
17	5/15 – 5/21	Ch.5-7; 13	Review Chapters 5-7; 13	Optional Assignment 11 due 5/16
18	5/22 – 5/26			**Final due 5/23**

College Policies

Academic Honesty

Your lab, quiz and exam submissions must be your own work.

The following guidelines apply:

You are encouraged to discuss in the forum course questions but you may not examine nor reuse any other student's code. You are not allowed to copy code from **any** source — other students, the Web, etc.

If you have any questions and / or need further clarification please feel free to reach out to me or view the college **Academic Integrity** page.

Changes

This syllabus is subject to changes, additions, deletions, and/or corrections.
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