Coding 1 - Course Syllabus

Collegiate School of Medicine and Bioscience

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Course Description

This course is designed to offer an introduction to computer science. Students will learn the basics of computer programming along with the basics of computer science. The material emphasizes computational thinking and helps develop the ability to solve complex problems. This course covers the basic building blocks of programming along with other central elements of computer science. It gives a foundation in the tools used in computer science and prepares students for further study in computer science, including AP Computer Science Principles and AP Computer Science A courses.

Course Units

Fall Semester

Unit 1: Introduction to Programming (Scratch & Python)

Culminating Project: Building an Intermediate Program in Scratch or Python

Unit 2: Game Design (Scratch & Python)

Culminating Project: Building a Game in Scratch or Python

Unit 3: Web Development (Building Websites in HTML, CSS, JavaScript)

Semester Final: Building a Portfolio Website

Spring Semester

Unit 4: Physical Computing with MakeCode Arcade & Circuit Playground

Culminating Project: Building a Game in MakeCode

Unit 5: Coding in Minecraft for Education

Culminating Project: Building a Minecraft World

Unit 6: *Games for Change* Student Challenge

Culminating Project: Game Submission for $10,000 G4C National Competition

Unit 7: Independent Hack-a-thon Expo Preparation & Presentations

Semester Final: Choice Project

Last Revised 18 August 2022

Grading Formula

Daily Classwork: 40%
Culminating Projects: 40% (2/semester)
Semester Final Project: 20%

A	90-100%
B	80-89%
C	70-79%
D	60-69%
F	Less than 60%

Expectations:

Be Respectful. This applies to the teacher and to your fellow students. Being respectful means that you follow directions, stay awake and on task, pay attention, use appropriate language, and respect the classroom and supplies. This includes never having food or drink at any desk area in the computer lab area.

Be Prepared. You must come to class on time every day with your required supplies. Your homework should be completed when you come to class, ready to be collected. Take careful notes and keep track of the class calendar so that you are prepared for upcoming assignments and exams.

Be Responsible. If you feel that you do not understand a new topic, reach out to me for help. Take care of the items you are using in your classroom. Ask for help when you need it, and seek out resources. Take ownership of your learning.

Participate. The best way to learn is to **try**! It is **OK** to be wrong, that is why we are in class. Please be willing to ask questions when you need clarification and be proactive in class by doing your best to answer questions.

Practice Integrity. Always turn in your own work. Don't tell people the answers; explain the process to them so they can learn how to find the answers themselves.

Semester Final Project: The culmination of this course is the semesters' final projects. Both semester final projects are your opportunity to take your newfound savvy with programming out for a spin and develop your very own piece of software. Parameters for the semester final project are centered upon students' interests, and more comprehensive details will be provided in the weeks ahead of the final project. As software development is rarely a one-person effort, you are allowed an opportunity to collaborate in groups for this final project.

Homework Policy: You will be assigned projects that require work over several class periods. You will be provided sufficient time in-class to complete assignments. Students who need access to technology outside of class time to complete work can make arrangements to visit the Computer Science Lab outside of class time.

If Absent: If you miss class, you can find your missed homework assignments on Google Classroom. It is your responsibility to find out if there is any in-class work you

need to make up. You will be able to turn in missed assignments within one week of your absence at no penalty.

Tutoring: If you are having trouble and need extra help, please let me know, and we can make arrangements. Visit my classroom and/or send me an e-mail.

Late Work: Unless the student is absent or there are extenuating circumstances, any late work will carry a **20%** penalty if submitted within a week from its due date. If you are having issues, please make arrangements with me **ahead** of time
Academic Integrity: All of a student's work is expected to be his or her own. Cheating, in any form, will not be tolerated. If a student is caught cheating, he or she will receive a zero on the assignments and parents/guardians will be contacted. All snippets of code that are not original must be cited with the proper credit given.

Core Values

Strong Academic Habits
Collegiate School of Medicine and Bioscience is dedicated to teaching academic habits, which will sustain lifelong learning in students. Students learn how to learn -- whether it be taking notes, studying, or writing -- prepares students for success in college and in life. Our teachers nurture confident and critical thinkers who have mastered academic skills and competencies across a variety of academic disciplines.

Respect
Collegiate School of Medicine and Bioscience offers a safe and inclusive school community where individuals are expected to respect themselves, one another, and our environment. Through personal relationships with diverse groups and individuals, we learn to understand others and ourselves and work effectively as part of a team.

Compassion & Ethics
Collegiate School of Medicine and Bioscience believes that the development of compassion and being of ethical mind –- and the desire to make a positive difference in the lives of others – is essential to being a productive member of a community. Through the study of multiple viewpoints and the act of service, students develop empathy for those around them.

Integrity
Collegiate School of Medicine and Bioscience encourages all members of its community to hold themselves to the highest code of conduct, which includes academic honesty. Led by a commitment to the common good, we strive to do what is right -- even when nobody is looking.

Self-Discipline

Hard work and self-discipline are essential components for success. CSMB challenge students to develop a strong work ethic and the internal motivation to persevere through times of challenge.

Intellectual Curiosity
Collegiate School of Medicine and Bioscience encourages students' natural inquisitiveness and wonder about the world. Asking questions and taking risks is as important as searching for the right answer. With the desire and courage to move confidently into the future, students can adapt to an ever-changing future in pursuit of their dreams.