



Course Syllabus
Computer Science Discoveries
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Course Description

Computer Science Discoveries is an introductory, classroom-based course designed with the new-to-CS student and teacher in mind. The course takes a wide lens on computer science by covering topics such as programming, physical computing, web development, design, and data. The course inspires students as they build their own websites, apps, games, and physical computing devices.

Curriculum

We will be using code.org curriculum, which has . The AP Computer Science A course teaches fundamental programming topics that include problem solving, design strategies and methodologies, organization of data (data structures), approaches to processing data (algorithms), analysis of potential solutions, and ethical and social implications of computing.

Unit Topics

Unit 1 - Problem Solving and Computing

Unit 2 - Web Development

Unit 3 - Interactive Animations and Games

Unit 4 - The Design Process

Unit 5 - Data and Society

Unit 6 - Physical Computing

What You Can Expect of Your Instructor

The course instructor serves more as a facilitator of learning than as a traditional lecturer. The instructor is sensitive to the needs of new learners of sophisticated computer applications and has an understanding of the challenges associated with teaching and learning software applications.

What is Expected of Students

- Respect other students in the classroom
- Respect classroom and equipment
- Participate in class activities and discussions (verbally, through chat, symbolically, etc.)

- Class Computers – Please do not change any settings, do not download anything from the Internet (Instant Messenger, games, etc.), and only use the Internet for approved activities from the instructor
- Follow expectations and guidelines of UCHS students

Assessment

Grading is based on various class activities, coding activities, review questions, student journaling, larger coding activities, and group projects. Summative Assessments count for 70% of a student's grade and Formative Assessments count for 30% of a student's grade. Students may re-do/re-take assignments or projects to improve upon their learning.

NAF Track Certification

Successful completion of AP CSA satisfies one of the three major requirements for students to earn NAF Track Certification.

This syllabus is subject to change at the teacher's discretion.