

Fundamentals of Computing Syllabus

Course Details

Course Code: 502300CW

Subject: CTE

Required Prerequisites: None

Suggested Prerequisites: Algebra I

Recommended Grade Levels: 9-12

Duration: Semester, Yearlong, or Varies

Course Availability: A listing of when this course is offered in the current school year can be found on the <u>VirtualSC Current Course Offerings page (opens in a new window)</u>.

Class Times: This course has scheduled instructional meetings. Information on scheduled meetings for each course is communicated by the teacher. Recordings of these meetings will be available for students unable to attend. Students should expect to spend 7-9 hours a week working on this course independently, in addition to any live meetings, and are expected to meet the deadlines posted in the course pacing guide.

Textbook: No external textbook needed. All required materials are contained in the course.

Required Course Materials: Outside Websites: A list of links to websites and online textbooks used in this course can be found here: <u>VirtualSC Course Links Document</u> <u>Folder (opens in a new window)</u>. Students will need to be able to access all these links to view all course materials.

Final Exam: Students in this course take [a VirtualSC final exam. Details on scheduling and taking final exams can be found on the <u>Final Exam Page (opens in a new window)</u> of the VirtualSC webpage.

Course Description

Fundamentals of Computing is designed to introduce students to the field of computer science through an exploration of engaging and accessible topics. Through creativity

and innovation, students will use critical thinking and problem-solving skills to implement projects that are relevant to students' lives. They will create a variety of computing artifacts while collaborating in teams. Students will gain a fundamental understanding of the history and operation of computers, programming, and web design. Students will also be introduced to computing careers and will examine societal and ethical issues of computing.

The curriculum used in this course is guided by the <u>Fundamentals of Computing</u> <u>Standards</u> (opens in a new window).

Scope and Sequence

- Course Overview & Introduction
- Unit 01: Digital Citizenship and Cyber Hygiene
- Unit 02: What is Computing?
- Unit 03: Programming with Karel
- Unit 04: Continuing Programming with Karel
- Unit 05: Networks and the Internet
- Unit 06: Computer Science Careers
- Unit 07: JavaScript and Graphics
- Unit 08: Web Design
- Unit 09: Web Design with CSS
- Final Project
- Final Exam

Students will be sent a full list of assignments and their due dates at the beginning of the course.

Current pacing guides for this course can be found on the <u>Current Course Offerings</u> page (opens in a new window) on the VirtualSC website.

Course Grades

The final grade in this course results from the following:

- Coursework: 80% (Each unit counts approximately 11% towards the coursework grade)
- Final Project: 15%
- Final Exam: 5%

VirtualSC Details

Information on VirtualSC student guidelines, policies and technology requirements can be found in the <u>VirtualSC Student Support Portal (opens in a new window)</u>.