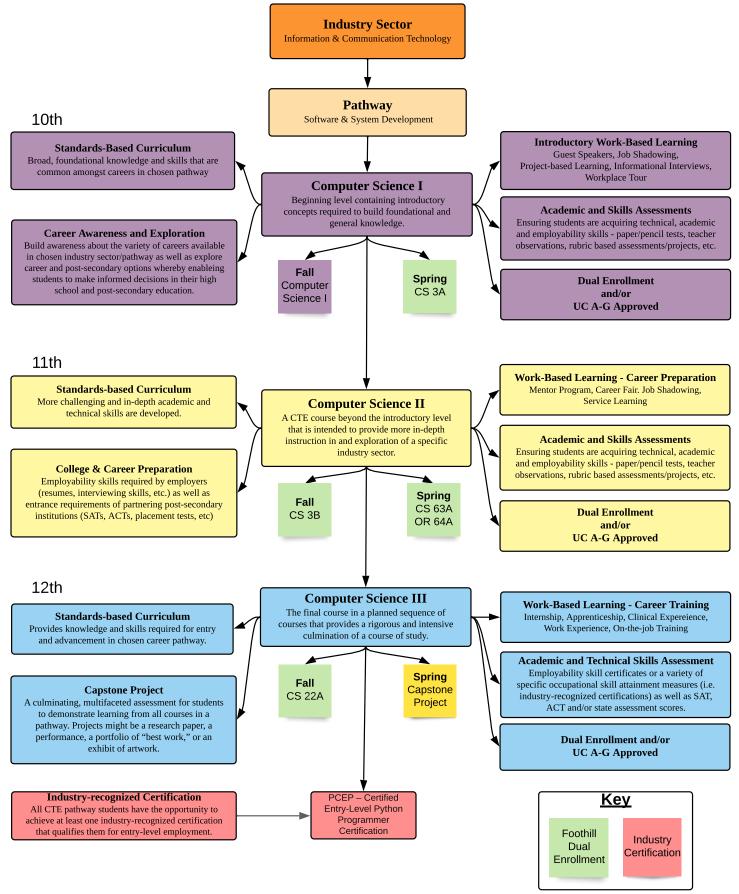


Computer Science: Mobile App Development



Dual Enrollment Courses

10th Grade

Spring: CS 3A Object-Oriented Programming Methodologies in Python, 4.5 units

Description: Systematic introduction to fundamental concepts of computer science through the study of the Python programming language. Coding topics include control structures, functions, classes, string processing, lists, tuples, dictionaries, working with files, and elementary graphics. Concept topics include algorithms, recursion, data abstraction, problem solving strategies, code style, documentation, debugging techniques and testing.

11th Grade

Spring - CS 3B Intermediate Software Design in Python, 4.5 units

Description: Systematic treatment of intermediate concepts in computer science through the study of Python object-oriented programming (OOP). Coding topics include Python sequences, user-defined classes and interfaces, modules, packages, collection classes, threads, lambda expressions, list comprehensions, regular expressions and multi-dimensional arrays. Concept topics include OOP project design, recursion, inheritance, polymorphism, functional programming, linked-lists, FIFOs, LIFOs, event-driven parsing, exceptions and guarded code.

Fall: CS 63A Developing Applications for iOS, 4.5 units

Description: An introduction to programming the iPhone, iPad and iPod Touch devices. Covers Swift, Cocoa Touch, and the Model/View/Controller architecture. Students will learn the basics of Swift and will acquire practical experience with the tools, techniques, and concepts needed to build a basic iOS app from scratch.

OR

Note: Course offered will depend on Foothill's schedule/instructor availability

Fall: CS 64A Writing Apps for Android, 4.5 units

Description: Introduction to mobile apps programming in Java for the Android. Coding topics include the Android SDK for Eclipse, the ADT Plugin, XML fundamentals and a survey of API methods and objects used to control the Android user interface. Concept topics include layouts, activity lifecycles, runtime binding, intents, location awareness, audio, video, OpenGL ES, and monetizing apps.

12th Grade

Spring: CS 22A Javascript for Programmers , 4.5 units

Description: Introduction to object oriented programming in JavaScript. Topics include: client and server side programming, Model/View/Controller architecture, current tools and testing methods, interaction with HTML and CSS, Document Object Model, XML and JSON. Students will have practice writing programs for mobile web browsers and creating dynamic web pages including animation.