

	AP CSA (and Intro to Programming)	AP CSA (and Data Structures)	Computer Science and Software Engineering	AP CSP (Principles)	Data Science	Computer Information Systems (+ Advanced Computer Information Systems)	Web Design 1 - 2
Course Length	1 year	1 year	1 term	1 term	1 term	1 term	1 term
Brief Course Content	<ul style="list-style-type: none"> • Java • Object Oriented programming • Variability (abstraction) • Code using control structures • Privacy, Security and Ethical Issues as they relate to Computers • Various Coding Structures and their applications • AP EXAM PREP 	<ul style="list-style-type: none"> • ← All content from AP CSA & Intro To Programming • Designing Data Structures • Topics including searching, sorting, hashing, algorithm analysis, lists, stacks, queues, trees, sets and dictionaries 	<ul style="list-style-type: none"> • Introduction to Object Oriented Programming • Programming basics such as control structures, data types, input/output, operators, classes, methods and parameters, inheritance 	<ul style="list-style-type: none"> • Simple App Development • The Internet • Basic coding structures and their applications • Data filtering for use within an App • Abstraction • Privacy, Security and Ethical Issues as they relate to Computers • AP EXAM (and PROJECT) PREP 	<ul style="list-style-type: none"> • R - language for statistical computing and graphics • Design a research question • Capture large data sets • Analyze data • Create Statistical Models • Make predictions • Identify and account for error 	<ul style="list-style-type: none"> • Word processing • Spreadsheets • Slides • Photo Editing • Data Findings • Google Suite • Microsoft Office • Some Adobe • Intro to coding <ul style="list-style-type: none"> ○ App ○ Web <p><i>**easy to join at any point in the term</i></p>	<ul style="list-style-type: none"> • Code based web design (HTML, CSS) • Use of github • Create various websites on topics of your choice • Design logos / art to include on your own websites • Apply linking structure to multiple self-created websites • Explore 'responsiveness' of sites (how sites look on different sized screens, phones, tablets etc)
Course Credit	Math	Math	TBA	Science	Math	Elective (Business)	Elective (Business)
Prerequisite	NONE	NONE - but should have desire / motivation to excel quickly	TBA	NONE	Integrated III	NONE	NONE