

# Computer Science I

## Elective Revision Proposal

1 Credit | CIS-116 at FMCC | Computer Science | Offered on DL Network

\*\*This is an update to the currently offered Computer Science I - Intro to Programming, this update adds content to better align with the FMCC syllabus for Computer Science I.

### Overview:

This full-year college level course is a rigorous introduction to programming via the Python programming language. Students will build graphics based applications that encourage a deep understanding of programming concepts. Similar to Explorations in Programming this course will lean heavily on the end of unit creative tasks. These projects will allow students to flex their creative and technical muscles to build an application of their own design. This course is the gateway to a plethora of further computer science courses including; Computer Science II (CIS-216), Database Design and Development (CIS-160), Website Development (CIS-170), and Game Design & Development (CIS-238).

*(Course Description from CIS-116 at FMCC)*

This course covers the fundamentals of computer problem solving and programming – techniques, concepts, and vocabulary. Topics include: program development process, differences between the procedural and object-oriented programming methodologies, phases of language translation (compiling, interpreting, linking, executing), and error conditions associated with each phase, primitive data types, memory representation, variables, expressions, assignment, fundamental programming constructs (sequence, selection, iteration), algorithms for solving simple problems, tracing execution, subprograms/ functions/ methods, and parameter passing.

**Prerequisites:** Algebra I

**Other Notes:** This course is intended to be offered to students locally and via distance learning. This course will be offered for FMCC credit to both local and distance learning students. For additional context I have included the proposed course progression of AHS Computer Science courses to the right. Note that CSII and Intro to A.I. are courses to be proposed for future school years.

