



The Coding program of study (POS) is designed for students interested in computer programming. Computer programming is either a stand-alone career or it can be used with other computer applications as a major aspect of broader computer science occupations. Students will develop standard programming techniques and learn the logic tools and methods typically used by programmers to create simple computer applications. Proficient students will be able to solve problems by planning multistep procedures; write, analyze, review, and revise programs, converting detailed information from workflow charts and diagrams into coded instructions in a computer language; and able to troubleshoot/debug programs and software applications to correct malfunctions and ensure their proper execution. This POS also challenges students to develop advanced skills in problem analysis, construction of algorithms, and computer implementation of algorithms as they work on programming projects of increased complexity. In doing so, they develop key skills of discernment and judgment as they must choose from among many languages, development environments, and strategies for the program life cycle. Course content is reinforced through numerous short- and long-term programming projects accomplished both individually and in small groups. These projects are meant to hone the discipline and logical thinking skills necessary to craft error-free syntax for the writing and testing of programs.