

COURSE DESCRIPTIONS – COMPUTER SCIENCE

COMPUTER PROGRAMMING II (JAVA)- 0516

*Grades 10, 11, 12
(1 credit)*

Purpose: This course will enable students to understand the JAVA programming language and to use it to solve problems. We suggest that students take the "A" version of the AP Computer Science Exam.

Course Description: Some programs will be assigned but the student will choose a programming project approved by the instructor. He/she then researches the material, writes the program and ascertains that it will run, error free, on the computer. The student will also investigate software packages.

Requirements: The student will be required to submit some high level, error free programs. The number required will depend on the complexity of the programs submitted. Tests and quizzes will be given periodically.

Prerequisites: Successful completion of Computer Programming I, (QBASIC) and Algebra I.

NOTE: Computer Programming II and Advanced Programming may be scheduled with the Computer Programming I class.

A.P. COMPUTER SCIENCE - 0517

*Grades 11, 12
(1 credit)*

Purpose: This course will enable students to understand and enhance their knowledge of the computer as a tool. Students will also review for the AP Computer Science Test, and it is recommended that students take either AP Computer Science A or AB.

Course Description: This course will enable students to understand and enhance their knowledge of the computer as a tool using the JAVA programming language to solve problems. The students will learn to follow the software development cycle from specifications to design, implementation, testing and verification using JAVA as the coding tool. The students will review case studies for A.P. Computer Science test, and select independent programming projects approved by the instructor.

Requirements: The students will have to complete a journal daily and demonstrate a working knowledge of each JAVA package through written tests, verbal explanations, and completed projects.

Prerequisites: Successful completion of Computer Programming I and II is required.

ADVANCED JAVA: PROGRAMMING AND PROBLEM-SOLVING - 0507

*Grades 11, 12
(1 credit)*

Purpose: To enable students to write programs in Java.

Description: This course covers the essence of Java programming in a multilevel approach using programming problems designed to challenge students to apply what they have learned. The content includes case studies that reinforce software development. Students will learn to use standard Java applications, which build up to HTML and applets, allowing Java programs to be run in Web browsers. The course is intended for 11th and 12th grade students - advanced level.

Prerequisite: Computer Programming I (QBASIC) and JAVA: Computer Programming II.