DEPARTMENT: MATHEMATICS
NAME OF COURSE: AP COMPUTER SCIENCE PRINCPLES
GENERAL DESCRIPTION:

This full year course introduces students to the central ideas of computer science, instilling the ideas and practices of computational thinking and inviting students to understand how computing changes the world. This AP course promotes deep learning of computational content, develops computational thinking skills, and engages students in the creative aspects of the field.

MAJOR UNITS OF STUDY INCLUDE:

The Internet: Representing and Transmitting Information, Inventing the Internet
Digital Information: Encoding and Compressing Complex Information, Manipulating and Visualizing Data
Algorithms and Programming: Programming Languages and Algorithms
Big Data and Privacy: The implication of Big Data, Data in the Real World, Security and Encryption
Building Apps: Event-Driven Programming, Programming with Data Structures
Performance Tasks

REQUIREMENTS:

Students are expected to maintain a set of well-organized notes, complete daily homework assignments, and read selections from texts as assigned. Regular attendance is expected, and students are to make up work missed due to absences. Students should seek extra help during the school day in the mathematics study center or after school with the teacher when necessary. Appropriate behavior, respect for self and others, and participation in classroom activities are expected.

GRADING PROCEDURES:

The grade for each of the four marking periods is determined by unit exams, projects, quizzes, and timely completion of homework assignments. A departmental midyear exam comprises one-fifth of the second quarter grade. The student's final average will be determined by averaging the four quarter grades and the Final grade equally.