What is Exploring Computer Science?

Computing is involved in nearly every field of study, career and industry today. Exploring Computer Science (ECS) is a high school course that provides students with an introduction to the world of computer science. ECS is a college prep (A-G) and Career Technical Education approved course.

The course consists of 6 units which are approximately 6 weeks each. Assignments and instruction are inquiry and equity based and designed to be socially relevant and meaningful for diverse students. Units utilize a variety of tools/platforms, and culminate with creative final projects around the following topics:

**Unit 1 Human Computer Interaction**
Students are introduced to the concepts of computer and computing while investigating the major components of computers and the suitability of these components for particular applications.

**Unit 2 Problem Solving**
Students become “computational thinkers” by applying a variety of problem-solving techniques as they create solutions to problems in a variety of contexts.

**Unit 3 Web Design**
Students are prepared to take the role of a developer by expanding their knowledge of programming and Web page design and applying it to the creation of Web pages, programs, and documentation for users and equipment.

**Unit 4 Introduction to Programming**
Students are introduced to some basic issues associated with program design and development. Students design programming solutions to a variety of computational problems including animated stories, video games and community based projects.

**Unit 5 Computing and Data Analysis**
Students explore how computing facilitates new methods of managing and interpreting data. Students use computers to translate, process and visualize data in order to find patterns and test hypotheses.

**Unit 6 Robotics**
Students apply previous concepts to the study of robotics and work in small groups to build and program a robot to perform a required task.

For more information, please see Mr. Tan in room 102 or visit the course website at [csinquiry.org](http://csinquiry.org)