Policy Document Revision - Recommended Updates to the CS/CTE Course Sequence
Below are recommended changes to the Policy Document regarding the
Computer Science program. Changes submitted by David Herring on November 12, 2019.

Rationale: For students who have a deep interest in computer science, this change adds the district's newly approved *Computer Science: Advanced Topics* as an optional third year course. This course is an additional course beyond the CTE two course sequence. Other changes clean up language related to Fundamentals of Information course, which is no longer relevant, and provides clarity about when seniors can enroll in AP CS A.

Section VI.Q. - Computer Science Courses.
The University High School Computer Science sequence of courses shall be as follows: AP Computer Science Principles, ~~then~~ AP Computer Science A, THEN COMPUTER SCIENCE: ADVANCED TOPICS. ~~Students who complete Fundamentals of Information of Technology in 2017-18 should enroll in AP Computer Science A.~~ Seniors ~~graduating in 2019~~ may enroll in AP Computer Science A even if they have not taken ~~Fundamentals of Information Technology~~ AP CS PRINCIPLES IF SPACES ARE AVAILABLE AFTER STUDENTS WHO HAVE COMPLETED AP CS PRINCIPLES ARE ENROLLED. STUDENTS MUST COMPLETE AP CS A TO ENROLL IN COMPUTER SCIENCE: ADVANCED TOPICS.

Overview of Computer Science: Advanced Topics
Computer Science Advanced Topics is a project-based course that provides students who have completed *Computer Science 5-6: AP CS A* an opportunity to explore a variety of advanced topics to help them determine future courses of study or career paths related to computer science. In each unit students develop a strong conceptual knowledge of an important computer science topic as well as learn to apply that knowledge in a practical way. Each unit lasts between eight and sixteen weeks depending on the complexity of ideas. Topics may include data structures, computer design, programmable hardware, artificial intelligence, app development, or quantum computing, among others. Individual topics may change based on availability of resources, student needs, or instructor background.

In addition to the thematic topics, students in this class practice collaboration, effective communication, and professional software development practices, such as Agile iterative development and top-down design. Students also have opportunities to interact with software developers and other technical professionals to learn about career options.