## **CFISD Computer Science III K**

## Scope and Sequence

Course Description:

Computer Science III K is a continuation of Computer Science II AP A and builds upon such topics as object-oriented programming, inheritance, recursion, and classes. Students go on to address advanced topics such as maps, stacks, queues, advanced recursion, linked lists, binary trees, and advanced sorting, and searching topics in preparation for and alignment with college-level computer science. (1 credit)

- Grades 11 and 12
- Required prerequisite: Computer Science II K
- Lab supplies or fee may be required.

## <u>TEKS</u>

Program of Study: Programming & Software Development

Cluster: STEM / Information Technology

Endorsement: STEM / Business & Industry

- Meets advanced course requirement (Y/N): Yes
- Meets foundation requirement for math, science, fine arts, English, LOTE (Y/N-area): Y LOTE

Industry Certification/Credentials: Oracle Certified Associate Java SE 8 Programmer.

Instructional Units	Pace
Matrices	1 <sup>st</sup> Semester
Recursion	
Sets	
Maps	
Stacks	
Queues	
Linked Lists	
Trees	2 <sup>nd</sup> Semester
Heaps	
Hash Tables	
Graphs	
Major Project	

Primary Instructional Materials: Java