School of Information Technology

Computer Science

Pathway to Completion

Course Listing *(Must Complete 4 Courses)* :

☐ (100) **Digital Literacy OR Computer Literacy**

*** *Students will use a computer and application software including word processing, presentation, database, spreadsheet, internet, and email to prepare elementary documents and reports. The impact of computers on society and ethical issues are presented. Leadership development will be provided through FBLA (Future Business Leaders of America).*

☐ (100) **Computational Thinking**

*** *Computational Thinking promotes understanding of computer programming and logic by teaching students to think like a computer. It covers skills needed to develop and design language-independent solutions to solve computer-related problems. Instruction covers development and design basics including use of variables, control and data structures, and principles of command-line and object-oriented languages.*

☐ (200) **JAVA Programming I**

*** *Java Programming I introduces students to fundamental programming concepts using the Java programming language. Topics include data types, control structures, simple data structures, error-handling, object-oriented programming, graphical user interfaces, and modular programming.*

☐ (300) **AP Computer Science Principles**

*** *AP Computer Science Principles is designed to introduce students to the central ideas of computer science, to instill ideas and practices of computational thinking, and to have students engage in activities that show how computing changes the world. The course is rigorous and rich in computational content, includes computational and critical thinking skills, and engages*
students in the creative aspects of the field. Through both its content and pedagogy, this course aims to appeal to a broad audience.

☐ (300) **JAVA Programming II**

*** *Java Programming II provides students with an extensive overview of designing and developing advanced object-oriented applications using the Java programming language. Topics include input and output streams (file processing), polymorphism, inheritance, multithreading, recursion,*
mobile computing, and other advanced topics.

End of Program Assessments:

Oracle Certified Associate: Java SE 7 Programmer

or

Microsoft Technology Associate: Intro. To Programming Using JavaScript

Oracle Junior Associate: Java Foundations