

## **Computer Programming Foundations Certificate 20 credits**

This short certificate provides students with the solid foundation that's necessary to succeed in computer programming, either on the job or after they've transferred to a four-year college/university. Students master fundamental computer programming topics, such as control structures, functions and procedural programming, object-oriented programming, sorting and searching algorithms, recursion, abstract data types (e.g., stacks and queues), linked lists, and binary trees.

## **CERTIFICATE REQUIREMENTS 20 CREDITS Course ID Course Name** Lec Lab Other Credits IT-CS 115 Intro To Programming 55 5.0 IT-CS 116 5.0 Scripting 55 IT-CS 142 **Intermediate Programming** 55 5.0 IT-CS 143 Programming – Data Structures 55 5.0