### COMPUTER SCIENCE - CSC

**CSC 511 Introduction to Programming**  
3 Credits  
This foundational course will teach you the basics of computer programming using the Python language. You will design, code, test, and debug computer programs for textual and graphical applications.  
Corequisite: CSC 511L.  
Offered: every fall, spring, & summer.

**CSC 511L Introduction to Programming Lab**  
0 Credits  
Required lab for CSC 511.  
Corequisite: CSC 511.  
Offered: every fall, spring, & summer.

**CSC 512 Data Structures and Algorithms**  
3 Credits  
Introduction to object-oriented programming, recursion, and data structures, including lists, stacks, queues, trees and maps. Rudimentary discussion of analysis of algorithms. Python language used.  
Prerequisite: CSC 511 or CSC 111. Corequisite: CSC 512L.  
Offered: every fall, spring, & summer.

**CSC 512L Data Structures and Algorithms Lab**  
0 Credits  
Required lab for CSC 512.  
Corequisite: CSC 512.  
Offered: every fall, spring, & summer.

**CSC 530 Operating System Design**  
3 Credits  
The design of operating system software, including processor scheduling, memory management, storage and resource allocation, and security issues.  
Prerequisite: A minimum grade of C in CSC 512 & CSC 512L.  
Offered: every fall.

**CSC 610 Database Management**  
3 Credits  
Databases, SQL, and NOSQL systems, along with concepts of normalization and database design. Rudimentary discussion of data ethics and security. MySQL and MongoDB used.  
Prerequisite: CSC 112 or CSC 512; may be taken concurrently.  
Offered: every fall & spring.

**CSC 610L Database Management Lab**  
0 Credits  
Required lab for CSC 610.  
Prerequisite: CSC 512L. Corequisite: CSC 610.  
Offered: every fall & spring.