Required Courses

CSC 145- Information Security Fundamentals – 3 credits
Introductory course in which students explore the principles of information assurance, with emphasis on current threats and vulnerabilities to develop an information security plan to mitigate risk. Information security and assurance issues are explored and a multidisciplinary approach is discussed that examines security policies, models, and mechanisms for confidentiality, integrity, and availability. Theory/Lab

CSC 150- Computer Science I – 3 credits
An introduction to computer programming. Focus on problem solving, algorithm development, design, and programming concepts. Topics include sequence, selection, repletion, functions, and arrays.

CSC 234- Software Security – 3 credits
This course will make use of hands-on exercises in compiled and web-based software to illustrate attack methodologies and techniques that lead to software vulnerabilities that violate fundamental security principles. Attacks and mitigation strategies related to filter evasion, session management, input validation, buffer overflows, and related areas will be emphasized. Prerequisite: CSC 150

CSC 250- Computer Science II – 3 credits
Problem solving, algorithm design, standards of program style, debugging and testing. Extension of the control structures and data structures of the high-level language introduced in CSC 150. Elementary data structures and basic algorithms that include sorting and searching. Topics include more advanced treatment of functions, data types such as arrays and structures, and files. Prerequisite: CSC 150