# COURSE DESCRIPTIONS BY COURSE DISCIPLINE PREFIX

## ADVANCED C# PROGRAMMING

**CSC-253** **Advanced C# Programming** **3 (2-3)** **Fall**
**Prerequisites:** CSC-153[S]
**Corequisites:**
This course is a continuation of CSC 153 using the C# programming language with object-oriented programming principles. Emphasis is placed on event-driven programming methods, including creating and manipulating objects, classes, and using object-oriented tools such as the class debugger. Upon completion, students should be able to design, code, test, debug, and implement objects using the appropriate environment. (2006 SP)

## ADVANCED JAVA PROGRAMMING

**CSC-251** **Advanced JAVA Programming** **3 (2-3)** **Fall**
**Prerequisites:** CSC-151[S]
**Corequisites:**
This course is a continuation of CSC 151 using the JAVA programming language with object-oriented programming principles. Emphasis is placed on event-driven programming methods, including creating and manipulating objects, classes, and using object-oriented tools such as the class debugger. Upon completion, students should be able to design, code, test, debug, and implement objects using the appropriate environment.(2006 SP)

## ARTIFICIAL INTEL. FUNDAMENTALS

**CSC-113** **Artificial Intel. Fundamentals** **3 (2-2)** **Fall**
**Prerequisites:**
**Corequisites:**
This course provides a survey of artificial intelligence and machine learning. Topics include the history, development, and current applications of artificial intelligence and machine learning. Upon completion, students should be able to demonstrate general artificial intelligence and machine learning concepts.(2025 FA)

## ARTIFICIAL INTELLIGENCE I

**CSC-114** **Artificial Intelligence I** **3 (2-3)** **AND**
**Prerequisites:**
**Corequisites:**
This course covers the study of intelligent agent design and rational decision making. Topics include goal-driven agents, search techniques, optimization, basic problem-solving methods, logic, knowledge-based agents, statistical and probabilistic reasoning, and the basics of machine learning. Upon completion, students should be able to demonstrate artificial intelligence design concepts. (2020 FA)

## C# PROGRAMMING

**CSC-153** **C# Programming** **3 (2-3)** **Spring**
**Prerequisites:** MAT-025[L]
**Corequisites:**
This course introduces computer programming using the C# programming language with object-oriented programming principles. Emphasis is placed on event-driven programming methods, including creating and manipulating objects, classes, and using object-oriented tools such as the class debugger. Upon completion, students should be able to design, code, test, debug, and implement objects using the appropriate environment at the beginning level. (2006 SP)

## C++ PROGRAMMING

**CSC-134** **C++ Programming** **3 (2-3)** **Summer**
**Prerequisites:** MAT-025[L]
**Corequisites:**
This course introduces computer programming using the C++ programming language with object-oriented programming principles. Emphasis is placed on event-driven programming methods, including creating and manipulating objects, classes, and using object-oriented tools such as the class debugger. Upon completion, students should be able to design, code, test and debug at a beginning level. (2006 SP) This course has been approved to satisfy the following requirement(s): | Premajor and/or Elective course for A.A. and A.S. | Other Gen. Ed. and Premajor Elective Hours course for A.E.

## ETHICAL HACKING WITH PYTHON I

**CSC-211** **Ethical Hacking With Python I** **3 (2-3)** **Fall**
**Prerequisites:**
**Corequisites:**
This course introduces students to investigative ethical hacking techniques using the Python programming language. Emphasis is placed on using Python in gaining system access, cryptography, reconnaissance, enumeration, and buffer overflows. Upon completion, students should be able to understand system vulnerabilities and applications of the Python computer programming language to ethical hacking.(2018 SU)

## INTRO TO ETHICAL HACKING

**CSC-111** **Intro to Ethical Hacking** **3 (2-2)** **Fall**
**Prerequisites:**
**Corequisites:**
This course introduces computer programming students to the foundations of ethical hacking. Topics include security policies, common vulnerabilities, penetration testing methodology, and hacking concepts using computer programming and scripting techniques. Upon completion, students should be able to describe the computer programming aspects of ethical hacking in an organization's overall security framework.(2025 FA)

## JAVA PROGRAMMING

**CSC-151** **JAVA Programming** **3 (2-3)** **Spring Summer**

**Prerequisites:** MAT-025[L]
**Corequisites:**
This course introduces computer programming using the JAVA programming language with object-oriented programming principles. Emphasis is placed on event-driven programming methods, including creating and manipulating objects, classes, and using object-oriented tools such as the class debugger. Upon completion students should be able to design, code, test, debug JAVA language programs. (2006 SP) This course has been approved to satisfy the following requirement(s): | Premajor and/or Elective course for A.A. and A.S. | Other Gen. Ed. and Premajor Elective Hours course for A.E.

## PROGRAMMING CAPSTONE PROJECT

**CSC-289** **Programming Capstone Project** **3 (1-4)** **Spring**
**Prerequisites:** CTS-115[S], CTI-110[S], CTI-120[S]
**Corequisites:**
This course provides an opportunity to complete a significant programming project from the design phase through implementation with minimal instructor support. Emphasis is placed on project definition, testing, presentation, and implementation. Upon completion, students should be able to complete a project from the definition phase through implementation. (2016 FA)

## SWIFT PROGRAMMING I

**CSC-118** **Swift Programming I** **3 (2-3)** **Fall**
**Prerequisites:**
**Corequisites:**
This course introduces the development of iOS applications and Apple applications using Swift programming language. Emphasis is placed on syntax, object-oriented principles, memory management, and functional concepts of Swift programming. Upon completion, students should be able to develop fully functional iOS and Apple applications using Swift programming language. (2018 SU)

## SWIFT PROGRAMMING II

**CSC-218** **Swift Programming II** **3 (2-3)** **Spring**
**Prerequisites:** CSC-118[S]
**Corequisites:**
This course introduces advanced iOS application development using the Swift programming language. Emphasis is placed on navigation, data manipulation, web services, prototyping, debugging, and project planning. Upon completion, students should be able to develop advanced multifunctional iOS and Apple applications using the Swift programming language. (2018 SU)

# VISUAL BASIC PROGRAMMING

**CSC-139** **Visual BASIC Programming** **3 (2-3)** **AND**
**Prerequisites:** MAT-025[L]
**Corequisites:**
This course introduces computer programming using the Visual BASIC programming language with object-oriented programming principles. Emphasis is placed on event-driven programming methods, including creating and manipulating objects, classes, and using object-oriented tools such as the class debugger. Upon completion, students should be able to design, code, test and debug at a beginning level. (2006 SP) This course has been approved to satisfy the following requirement(s): | Premajor and/or Elective course for A.A. and A.S.