



### Course Information

Division	Business
Contact Hours	4
Total Credits	4

**Prerequisites** MATH 092, or higher, or qualifying score on accepted placement tests.

### Course Description

This course focuses on the design stage of computer program development and coding of programs using an object oriented programming language such as C++. Students will design solutions to a variety of computer problems. Documentation will be created using standard methods. Program solutions will be coded, executed and tested.

**This course is a required core course for students pursuing an AAS in Computer Science.**

### Program Outcomes Addressed by this Course

Upon successful completion of this course, students should be able to meet the program outcomes listed below:

- Demonstrate and utilize necessary technical knowledge and skills both in breadth and depth, to pursue the practice or advanced study of computer science.
- Understand the importance of life-long learning, and be prepared to learn and understand new technological developments in their field.
- Understand the ethical and technical context of their computer science contributions and their obligations therein.

### Course Outcomes

In order to evidence success in this course, the students will be able to:

- Create a complete functioning program that solves a problem.  
Applies to Program Outcome
  - Demonstrate and utilize necessary technical knowledge and skills both in breadth and depth, to pursue the practice or advanced study of computer science.
- Describe the advantages of using object oriented programming for program development.  
Applies to Program Outcome
  - Understand the importance of life-long learning, and be prepared to learn and understand new technological developments in their field.
- Describe the importance of program design as it relates to information assurance and security.  
Applies to Program Outcome
  - Understand the ethical and technical context of their computer science contributions and their obligations therein.