

**Course Name:** Object-Oriented Programming: CSCI 2210

**Course Description:** Prereq: Computer Programming Fundamentals CSCI 1210.

This course is an introduction to object-oriented programming. Including: Classes and objects, and associated topics such as constructors, properties, and methods, inheritance, polymorphism, encapsulation, abstraction, exception handling and best practices.

**SLOs:** Students completing this course should be able to:

- Implement object-oriented designs based on project requirements.
- Use encapsulation to write programs that are loosely coupled and easy to debug, maintain, and modify.
- Use inheritance to define simple class hierarchies that allow code to be reused by distinct subclasses.
- Implement and reason about control flow in a program using polymorphism to solve common programming problems.

**Credits:** 4

### **Comparitors**

**CIS 2275 - C++ Programming II (Object-Oriented Programming)**

**3 credit hour(s)**

**Prerequisite:** CIS 1275

Continues coverage of C++ programming. Covers structures, enumerated data types, C++ function enhancements, classes and objects, inheritance and virtual functions. This advanced course provides a solid foundation in object-oriented programming methods.

**CS 234 – Computer Science II (4)**

Advanced procedural programming. Object-oriented programming techniques: abstraction, inheritance and interface polymorphism. Object-orientated analysis and design. Recursion. Basic data structure and basic sorting and searching. Prerequisite: CS 123. (F, S)

**251L. Intermediate Programming. (3)**

An introduction to the methods underlying modern program development. Specific topics will include object-oriented design and the development of graphical user interfaces. Programming assignments will emphasize the use of objects implemented in standard libraries. Three lectures, 1 hr. recitation.

**CS 2450. Advanced Computer Programming (3); Fa, Sp**

Topics include the principles of software engineering, debugging and testing, string processing, internal searching and sorting, simple data structures, such as stacks, queues and lists, recursion, and object-oriented programming. Prerequisite: CS 1440 and CS 1450 with a minimum grade of C. Previous NMHU CS 245.