Course Name: Computer Programming Fundamentals: CSCI 1210

Course Description:
This course is an introduction to problem-solving methods and algorithm development. Students will learn how to design, code, debug, and document programs. Students will explore basic programming concepts including variables, data types, operators and expressions. Students will learn about input/output mechanisms, including command prompt interaction, and reading and writing data to files. Students will be introduced to control structures such as branching, conditionals, iteration, and loops and arrays. They will also learn how to define and use functions/methods to structure code and improve code reuse.

SLOs: Students completing this course should be able to:

- Demonstrate an understanding of procedural programming techniques
- Implement control flow structures to execute statements in a specified order, repeat sequences of statements, and execute different statements based on conditions.
- Apply modularization principles by defining and using functions/methods to structure code and improve code reuse and maintainability.
- Write code utilizing data structures such as arrays and simple classes and objects, to provide useful access to, and operations on, data.
- Use input/output mechanisms to collect user input and display data, including implementing error handling mechanisms.
- Describe the concept of recursion and identify base case and inductive step

Credits: 4

Comparitors

UNM - 152L. Computer Programming Fundamentals. (3)
Introduction to the art of computing. The course objectives are understanding relationships between computation, problem solving, and programming using high-level languages. Prerequisite: 105L or 108L or ECE 131L.

ENMU - C S 123 – Computer Science I (4)
Imperative and object-oriented programming, including: I/O, operators and expressions, APIs, simple class definition, control structures, arrays. Prerequisite: CS 120 or MATH 1220 or placement. (F, S)

MCC - CS 205 JAVA PROGRAMMING (4)
Throughout this course the student will learn the general concept of Java programming. The student will be guided as a beginning programmer in developing applications and applets using the Java programming language. A step by-step approach will be used in exercises that

illustrate the concepts being explained, reinforcing the students? understanding and retention of the material.

NMJC - CS 214J Java Programming 3 Credit Hours
This course provides students with a comprehensive knowledge and hands-on experience with the Java programming environment and features. Students will design, write, debug, and run Java stand-alone programs and Java applets. Topics covered include Java language syntax, elements, operators, statements, arrays, string manipulation classes, graphics, graphical user interface, common classes, and basic I/O operations. Prerequisite: CS 113 or experience/knowledge of a programming language.

Dine - CSC 150 – Programming Fundamentals (3)
An introduction to computers programming in computer science. The course takes ta balanced approach using object-oriented programming style to reaching programming paradigms, principles, and language mechanisms while focusing on language constructs and programming skills. Lectures and labs are designed to improve critical thinking skills, communications, and problem-solving capabilities. Topics include file managements, branching iteration, data types, functions, and arrays. Since computer programming involves computational modes of thing it will help to have mathematical skills and logical aptitude. Three hours lecture and two hours laboratory per week.

SJC - COSC-218 Computer Programming Fundamentals II 3
Intermediate level object-oriented programming course with emphasis on the underpinnings of objected-oriented design. The fundamental tenets of object-oriented program such as inheritance, polymorphism, pointers, templates, and dynamic memory management are covered in depth. The Standard Template Library is presented as an introduction to data structures.
Prerequisites: COSC-118.
Offered: Spring
Fee - Course/Program (F) $13.00

NMHU - CS 1450. Introduction to Object-Oriented Programming (3); 2, 2 Fa, Sp
This course is an introduction to object oriented programming with software engineering emphasis. Major emphasis is placed on object-oriented programming techniques with focus on encapsulation and simple data structures implemented with classes and arrays. Prerequisite: MATH 1215 with a minimum grade of C, or ACT MATH score of 24, or permission of instructor. Previous NMHU CS 145.

CCC - CIS 128 Java Programming – 3 Credits
Prerequisite: CIS 125 or consent of instructor
An introduction to Java programming language that focuses on object-oriented techniques in developing Java applets and applications using an integrated development environment. This course covers control structures, classes, constructors, arrays and exception handling.

NMSU - C S 152. Java Programming 3 Credits
(2+2P)
Programming in the Java language. May be repeated up to 3 credits.
Prerequisite(s): MATH 1215 or higher.