Master Syllabus

CIS 1111 - Introduction to Problem Solving & Computer Programming

Division: Business and Public Services

Department: Computer Information Systems

Credit Hour Total: 3.0   **Lecture Hrs:** 3.0

Prerequisite(s): MAT 0200

Date Revised: January 2014

Course Description:

Introduction to problem solving techniques used in programming. Students learn to use tools such as flowcharts and pseudocode to plan solutions. Using current programming languages, students will design, code and test programs using the basic structures of sequence, selection, iteration, functions and one dimensional arrays.

General Education Outcomes:

- Critical Thinking/Problem Solving Competency

Course Outcomes:

Constructs of a computer program
Apply the various controls used in Object Oriented Programming. Use constants, variables and expressions for writing code.

Assessment Method: Locally developed exams
Performance Criteria:

Correctly answer 70% of exam questions

The problem solving process
Identify the steps of input, processing, & output for problem solving. Create documentation for the problem solving process, and analyze output.

Assessment Method: Locally developed exams
Performance Criteria:

Correctly answer 70% of exam questions.

Analyze and solve programming logic problems
Create algorithms, flow charts, and pseudocode that use the basic structures of sequence, selection and iteration. Analyze and debug output.

Assessment Method: Locally developed exams
Performance Criteria:

Correctly answer 70% of exam questions.

Outline:

Introduction to object oriented programming
Testing and debugging
Variables, constants, and their data types in programming code
Structures: sequence, selection, and iteration
Flowcharts, pseudocode, algorithms
Introduction to functions
One dimensional arrays