

## 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

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#### 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