

North Central Michigan College

NCMC MASTER COURSE SYLLABUS

Last Date Revised 11/21/2006

DIVISION/AREA: Occupational

DEPARTMENT: CIS

ASSOCIATE DEAN: Robert J. Marsh

ORIGINATOR: Hwee-Joo Kam

DEAN OF INSTRUCTION: Timothy Dykstra

HOURS OF INSTRUCTION: 3.0

Credit hours: 3.0

Lecture: 3

Lab: 0

Contact hours: 52.8

COURSE TITLE: Introduction to Programming Logic

COURSE ALPHA: CIS

COURSE NUMBER: 104

CATALOG DESCRIPTION:

Provides the beginning programmer with a guide to developing structured program logic. This course assumes no programming experience and does not focus on any one particular language. It introduces programming concepts and enforces good style and logical thinking. Students will learn basic programming structure, flowcharts and documentation, and how to solve difficult structuring problems.

PREREQUISITE(S): None

COREQUISITE(S):

GENERAL EDUCATION/PROGRAM OUTCOMES:

- Think critically and analytically
- Write and speak effectively
- Select and use mathematical tools for problem solving and decision making

COURSE OBJECTIVES AND OUTCOMES:

At the successful conclusion of the course, the student will

- Understand the basics of programming concepts and techniques.
- Be familiar with a practical hands-on approach when examining programming techniques.
- Practice good programming style and structure
- Develop problem-solving skills using logical thinking.

METHODS OF INSTRUCTION: Lecture, in class exercises and presentations, homework projects

METHODS OF EVALUATION: Exams, project presentations, in class exercises, homework projects

REQUIRED TEXT AT TIME OF COURSE ADOPTION/REVISION:

TEXTS:

An Object-Oriented Approach to Programming Logic and Design; Joyce Farrell; Course Technology: Boston, MA; 2005; ISBN 0-619-21563-1

OPTIONAL SUPPLEMENTARY MATERIALS:

Reasonable accommodations can be provided to students with documented disabilities. Please contact Learning Support Services at 348-6817 to arrange these.

SUGGESTED TIME ALLOWANCE AND SEQUENCE OF INSTRUCTION:

(List general content description of what is being covered each week)

WEEK 1	a. Course Overview b. Chapter 1 – An Overview of Computer and Logic (Part I)
WEEK 2	a. Chapter 1 – An Overview of Computer and Logic (Part II) b. Hands-On Exercise 1
WEEK 3	a. Chapter 2 – Understanding Structure (Part I) b. Hands-On Exercise 2
WEEK 4	a. Hands-On Assignment 1 Due b. Chapter 2 – Understanding Structure (Part II) c. In-Class Exercise
WEEK 5	a. Exam I (Chapter 1 & 2) b. Chapter 3 - Modules, Hierarchy Charts, and Documentation (Part I)
WEEK 6	a. Chapter 3 - Modules, Hierarchy Charts, and Documentation (Part II) b. Hands-On Exercise 3
WEEK 7	a. Chapter 4 – Writing and Designing a Complete Program (Part I) b. Hands-On Assignment 2 Due
WEEK 8	Exam II (Chapter 3)

WEEK 9	a. Chapter 4 – Writing and Designing a Complete Program (Part II) b. Hands-On Exercise 4
WEEK 10	a. Chapter 5 – Making Decisions (Part I) b. Hands-On Assignment 3 Due
WEEK 11	a. Exam III (Chapter 4) b. Chapter 5 – Making Decisions (Part I)
WEEK 12	a. Chapter 5 – Making Decisions (Part II) b. Hands-On Exercise 5 c. Hands-On Assignment 4 Due
WEEK 13	a. Chapter 6 – Looping (Part I) b. Chapter 6 – Looping (Part II)
WEEK 14	a. Exam IV (Chapter 5 – 6) b. Hands-On Exercise 6
WEEK 15	a. Chapter 7 – Control Breaks b. Hands-On Assignment 5 Due
WEEK 16	Final Exam

APPROVED FOR ADOPTION/REVISION BY THE CRD/AP COMMITTEE ON 12/6/06