

**NORTHEASTERN TECHNICAL COLLEGE  
ON-LINE COURSE OUTLINE**

<b>COURSE:</b>	<b>PREFIX NO:</b>	<b>EFFECTIVE DATE</b>	<b>NEXT REVIEW DATE</b>		
	CPT 168	SEPTEMBER, 2005	SEPTEMBER, 2006		
<b>TITLE:</b>	<b>CREDITS</b>	<b>CONTACTS</b>			
		<b>CLASS - LAB - TOTAL</b>			
PROGRAMMING LOGIC AND DESIGN	3	3	0	3	
<b>CO/PREREQUISITES:</b> CPT 114 - COMPUTERS AND PROGRAMMING I - with a grade of "C" or better					

**DESCRIPTION:** This course examines problem-solving techniques applied to program design. Topics include a variety of documentation techniques as means of solution presentation.

LEVEL II: This course is designed to provide instruction in problem solving as the basis for all computer programming tasks. Topics will include the use of the following problem solving tools: Algorithms, Pseudocode, Data Flow Diagrams, Nassi-Schneiderman Diagrams, Control Structures, and Modularization.

**TEXTBOOK(S) OR ALTERNATIVE:** SIMPLE PROGRAM DESIGN, by Lesley Anne Robertson; 4<sup>th</sup> Edition, Thompson/Course Technology

**MATERIALS (specifying those to be purchased by student):**  
Flowcharting Template

**COLLATERAL READING:** NONE

**CLASS MANAGEMENT ACTIVITIES (ATTENDANCE, TARDIES, TESTING, ETC.):**

ATTENDANCE:

Since this is an on-line course, the student is responsible for allocating the suggested hours of study (as shown on the weekly course outline) to successfully complete this course. The student is encouraged to contact the instructor with any problems encountered early in the term so that guidance may be provided to the student in a timely manner.

NOTE: If you receive financial assistance through the Veterans Administration, we are required to make contact with you each week. If this applies to you, please e-mail me at [Hmilligan@Netc.Edu](mailto:Hmilligan@Netc.Edu).

NETC WITHDRAWAL POLICY:

If the student wishes to withdraw from the class, the student must complete a Withdrawal form (please contact your local advisor or On-Line Liaison at your Host Institution). The student will receive a grade of "W" if the work completed to date is acceptable; a grade of "WF" will be assigned if the work is unacceptable.

WRITTEN ASSIGNMENTS:

All documents MUST be typed using either Microsoft Word, WordPerfect, or WordPad. The instructor reserves the right to refuse any paper which is messy or unreadable or appears to be

copied/plagiarized. Incorrect grammar and spelling errors will be noted. Papers will be graded on the basis of content, organization, grammar, spelling, and neatness. Papers containing any plagiarized material will result in a grade of "F" on the paper.

CLASS POLICY:

Any acts of impropriety or collusion during testing or projects will be unacceptable. If such an event occurs, the Student will receive a grade of "F" for the project or test.

DISABILITIES STATEMENT:

Students with disabilities are encouraged to contact the Vice President for Student Services to discuss needs or concerns as they pursue an academic program and participate in campus life. The Vice President for Student Services will provide guidance regarding official documentation of disabilities and/or accommodation of needs. (See College Catalog)

RESOURCES (A-V, persons, tools/equipment):

COURSE TOPICAL OUTLINE (List topics and sub-topics of course) and Calendar or approximate length of time devoted to topic.

Handouts will be posted on the website during the semester.

OBJECTIVES OF COURSE: Upon successful completion of this course, the student should be competent to demonstrate the use of the following problem-solving tools and techniques:

1. Algorithms
2. Pseudocode
3. Data Flow Diagrams
4. Nassi-Schneiderman Diagrams
5. Control Structures
6. Modularization

INSTRUCTIONAL METHODS TO COMPLETE OBJECTIVES:

Handouts  
Projects  
Tests

EVALUATIVE METHODS TO APPRAISE OBJECTIVES:

**Part 1: Handouts:**

Tests will be given on the textbook material including handouts posted on the website during the term. These tests will be primarily objective with some short problems depending on the materials being covered.

**All testing will be administered by a proctor at your Host Institution.**

**Part 2: Projects:**

In order to fully comprehend the subject matter, a variety of hands-on projects will be assigned to cover most topics.

There will be no retests or make-up tests given. A grade of "F" will be recorded for any test missed. If a problem arises, a test may be taken early at an agreed upon time.

All projects will be given a due date. TEN (10) points will be subtracted from the grade for late projects.

No project will be accepted more than 1 week later than assigned. A grade of "F" will be assigned the work if the time schedule is not met.

**GRADING SCALE:**

A = 100 - 93  
B = 92 - 85  
C = 84 - 78  
D = 77 - 70  
F = 69 and below

**COLLEGE-WIDE COMPETENCY:**

Through testing and projects, the student will be able to demonstrate the ability to identify and use sources of information by utilizing information processing skills compatible with job demands in a computer-literate society.