C# Programming (ITSE 1440)

Credit: 4 semester credit hours (3 hours lecture, 2 hours lab)

Prerequisite/Co-requisite: None.

Course Description
A study of C# syntax including data types, control structures, functions, syntax, and semantics of the language, classes, class relationships, and exception handling..

Required Textbook and Materials
1. Introduction to C# Joes 2 Pros (C# Exam Prep 70-536) by Peter Bako.
2. Visual Studio.net

Course Objectives
Upon completion of this course, the student will be able to:
1. Implement C# classes, objects, and class relationships. (SCANS: C6, F2, F7)
2. Develop and write programs applying Object Oriented principles using C#. (SCANS: C7, C15, F2, F10)
3. Create member functions using C# syntax and exception handling. (SCANS: C8, C16, C17, C18, C19, C20, F7)

SCANS Skills and Competencies
Beginning in the late 1980’s, the U.S. Department of Labor Secretary’s Commission on Achieving Necessary Skills (SCANS) conducted extensive research and interviews with business owners, union leaders, supervisors, and laborers in a wide variety of work settings to determine what knowledge workers needed in order to perform well on a job. In 1991 the Commission announced its findings in What Work Requires in Schools. In its research, the Commission determined that “workplace know-how” consists of two elements: foundation skills and workplace competencies..

Course Outline
A. C# Introduction
   1. What is C#
   2. IDE Overview
   3. Basic C# Code
   4. Saving Projects
B. Variables
   1. Naming Conventions
   2. Numeric Data Types
   3. User Input
C. Decisions
   1. IF’s
   2. IF Else
   3. Nested IF’s
D. More Math
   1. Boolean Login
   2. Binary Math
E. Loop’s
   1. Do While

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2. Do Until
3. For Next

F. Intermission
   1. Comments
   2. Debugger’s

G. Array’s
   1. One Dimensional Array’s
   2. Multi-Dimensional Array’s

H. Strings
   1. Escape Sequences
   2. Concatenation
   3. Manipulation

I. Fun w/ Variables
   1. Data Conversions
   2. Overflow & Underflow
   3. Variable Scope

J. Methods Part I
   1. Method Parameters
   2. Return Value

K. Anatomy of a C# Program

L. Methods: Part II
   1. Overloading
   2. Passing by Value
   3. Passing by Reference

M. Intermission
   1. Formatting Output
   2. Date Formatting
   3. Command Line Parameters

N. Classes
   1. Constructors
   2. Static Classes
   3. Constructors & Structs

O. Error Checking
   1. Logical Errors
   2. Syntax Errors
   3. Other Error Types

Grade Scale
90 – 100    A
80 – 89      B
70 – 79      C
60 – 69      D
0 – 59       F

Course Evaluation
Final grades will be calculated according to the following criteria:
1. Daily Work 10%
2. Home Work 30%
3. Quizzes & Test 30%
4. Final Project 30%

Course Requirements
1. Use structured programming techniques
2. Develop executable programs
3. Create appropriate documentation
4. Create applicable graphical user interfaces

Course Policies
1. No food, drinks, or use of tobacco products in class.
2. Cellphones, MP3 players, Tablet, Laptops, Notebooks and any other electronic devices must be turned off while in class.
3. Do not bring children to class.
4. No late assignments will be accepted.
5. Tests. Students that miss a test are not allowed to make up the test. Students that miss a test will receive a grade of ‘0’.
6. Attendance Policy. Two absences are allowed. If a student is tardy to class or departs early three (3) times, it will be equal to one (1) absence. Each absence beyond two absences will result in a 5 point deduction from your final grade.
7. If you wish to drop a course, the student is responsible for initiating and completing the drop process. If you stop coming to class and fail to drop the course, you will earn an ‘F’ in the course.
8. Additional class policies as defined by the individual course instructor.

Disabilities Statement
The Americans with Disabilities Act of 1992 and Section 504 of the Rehabilitation Act of 1973 are federal anti-discrimination statutes that provide comprehensive civil rights for persons with disabilities. Among other things, these statutes require that all students with documented disabilities be guaranteed a learning environment that provides for reasonable accommodations for their disabilities. If you believe you have a disability requiring an accommodation, please contact the Special Populations Coordinator at (409) 880-1737 or visit the office in Student Services, Cecil Beeson Building.

Course Schedule

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### Contact Information:
- **Instructor:** Josh McNamara
- **Office:** Office 227, Technology Center
- **Telephone:** (409) 839-2914
- **E-mail:** jsmcnamara@lit.edu
- **Office Hours:** 10-11 a.m. MWF; 3-4 p.m. MW; 11-3 p.m. TR