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.

    a. ISBN number is 13**:** 9781451581713.

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 **S**ecretary's **C**ommission on **A**chieving **N**ecessary **S**kills (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

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
   4.

1. Namespace
2. Class
3. Static vs. Non-Static
4. Adding Additional Files

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

Week of	Topic	Reference
Week 1	Course introduction and policies	
	C# Introduction	Chapter 1
Week 2	Variables	Chapter 2
Week 3	Decisions	Chapter 3
	Test I	Chapter(s) 1 – 3
Week 4	More Math	Chapter 4
Week 5	Loops	Chapter 5
Week 6	Intermission: Part I	Chapter 6
	Test II	Chapter(s) 1 – 6
Week 7	Arrays	Chapter 7
Week 8	Strings	Chapter 8
Week 9	Fun w/ Variables	Chapter 9

Week of	Topic	Reference
	Test III	Chapter 1 – 9
Week 10	Methods: Part I	Chapter 10
Week 11	Anatomy of a C# Program	Chapter 11
Week 12	Methods: Part II	Chapter 12
	Test IV	Chapter(s) 1 – 12
Week 13	Intermission: Part II	Chapter 13
Week 14	Classes	Chapter 14
Week 15	Error Checking	Chapter 15
	Test V	Chapter(s) 1 - 15
Week 16	Review	Chapter(s) 1 – 15
	Final Exam	

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