COURSE OUTLINE

CSD0207

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Prepared: Bazlur Rasheed   Approved: Corey Meunier

Course Code: Title	CSD0207: INTRO TO C# .NET & DESKTOP APPILICATIONS
Program Number: Name	1120: COMMUNITY INTEGRATN
Department:	C.I.C.E.
Semester/Term:	17F
Course Description:	This course introduces the student to the C# programming language and the .NET framework. Students will design, develop, test and debug applications demonstrating practical knowledge of C# language constructs and the .NET framework and libraries. Desktop applications including Windows Forms and console based applications will be written in the Visual Studio Integrated Development environment. Students will write applications that build on concepts and language constructs developed in this and other courses including structured programming techniques, basic language syntax, data types, file I/O, variable scope, arrays, collection classes, references, sequence, selection, repetition and object oriented programming techniques such as encapsulation, inheritance, polymorphism and UML syntax. This is a lab oriented course with emphasis on practical hands on exercises. Students will be introduced to and gain practical knowledge in the use of git, git clients and cloud based repositories.
Total Credits:	4
Hours/Week:	4
Total Hours:	60
Essential Employability Skills (EES):	#1. Communicate clearly, concisely and correctly in the written, spoken, and visual form that fulfills the purpose and meets the needs of the audience. #2. Respond to written, spoken, or visual messages in a manner that ensures effective communication. #3. Execute mathematical operations accurately. #4. Apply a systematic approach to solve problems. #5. Use a variety of thinking skills to anticipate and solve problems. #6. Locate, select, organize, and document information using appropriate technology and information systems. #7. Analyze, evaluate, and apply relevant information from a variety of sources. #8. Show respect for the diverse opinions, values, belief systems, and contributions of others. #9. Interact with others in groups or teams that contribute to effective working relationships and the achievement of goals.

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	#10. Manage the use of time and other resources to complete projects. #11. Take responsibility for ones own actions, decisions, and consequences.
Course Evaluation:	Passing Grade: 50%, D
Other Course Evaluation & Assessment Requirements:	To successfully pass this course, the student must receive passing grades for both the Test and Evaluation portion of the class and the Laboratory portion. Grade Definition Grade Point Equivalent A+ 90 – 100% 4.00 A 80 – 89% B 70 - 79% 3.00 C 60 - 69% 2.00 D 50 – 59% 1.00 F (Fail) 49% and below 0.00 CR (Credit) Credit for diploma requirements has been awarded. S Satisfactory achievement in field /clinical placement or non-graded subject area. U Unsatisfactory achievement in field/clinical placement or non-graded subject area. X A temporary grade limited to situations with extenuating circumstances giving a student additional time to complete the requirements for a course. NR Grade not reported to Registrar`s office. W Student has withdrawn from the course without academic penalty.

Evaluation Process and Grading System:	Evaluation Type	Evaluation Weight
	Lab Assignments	30%
	Lecture Assignments and Attendance	10%
	Quizzes	10%
	Theory and Lab Tests	50%

Books and Required Resources:	Beginning C# 6 Programming with Visual Studio 2015 by Benjamin Perkins, Jacob Vibe Hammer and Jon D. Reid Publisher: John Wiley & Sons, Inc., Wrox a Wiley Brand. ISBN: 978-1-119-09668-9
Course Outcomes and Learning Objectives:	Upon successful completion of this course, the CICE student, with the assistance of a Learning Specialist will acquire varying levels of skill development relevant to the following learning

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outcomes:

Course Outcome 1.

Introduction to Visual C# and .NET Framework

Learning Objectives 1.

- What is C#?
- What is the .NET Framework?

Course Outcome 2.

Introduction to Visual Studio and Visual Programming

Learning Objectives 2.

- The Visual Studio 2017 Integrated Development Environment
- Navigating the Visual Studio IDE
- Create a simple application (Command Line Programming)
- Create a simple application (Visual Programming)

Course Outcome 3.

Introduction to C# Console and Windows Application Programming

Learning Objectives 3.

- Console Applications
- Desktop Applications
- Web Applications

Course Outcome 4.

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Variables and Expressions

Learning Objectives 4.

- Basic C# Syntax
- Basic C# Console Application Structure
- Variables
- Expressions

Course Outcome 5.

Flow Control

Learning Objectives 5.

- Boolean Logic
- Branching
- Looping

Course Outcome 6.

More about Variables

Learning Objectives 6.

- Type Conversion
- Complex Variable Types
- String Manipulation

Course Outcome 7.

Functions

Learning Objectives 7.

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- Defining and Using Functions
- Variable Scope
- The Main() Function
- Struct Functions
- Overloading Functions

Course Outcome 8.

Debugging and Error Handling

Learning Objectives 8.

- Debugging in Visual Studio
- Error Handling

Course Outcome 9.

Introduction to Object-Oriented Programming

Learning Objectives 9.

- What Is Object-Oriented Programming?
- OOP Techniques
- OOP in Desktop Applications
- Defining Classes
- Class Definitions in C#
- System.Object
- Constructors and Destructors
- OOP Tools in Visual Studio
- Class Library Projects
- Interfaces Versus Abstract Classes
- Struct Types
- Shallow Copying Versus Deep Copying

Course Outcome 10.

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Defining Class Members

Learning Objectives 10.

- Member Definitions
- Additional Class Member Topics
- Interface Implementation
- Partial Class Definitions
- Partial Method Definitions

Course Outcome 11.

Class Designer in Visual Studio using Unified Modeling Language (UML) Syntax

Learning Objectives 11.

- Understand the physical structure of the software objects and their relationships
- How to design UML class diagram
- Generate C# code using visual studio

Course Outcome 12.

Basic Desktop Programming

Learning Objectives 12.

- Windows Forms
- Windows Presentation Foundations (WPF)
- Events
- Controls (Forms, Labels, TextBox, buttons, etc.) Properties and Layout
- GroupBoxes and Panels
- Checkboxes and RadioButtons
- PictureBoxes

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Course Outcome 13.

Advanced Desktop Programming

Learning Objectives 13.

- Menus
- MonthCalendar control
- DateTimePicker control

Course Outcome 14.

Git, Git clients and cloud based repositories

Learning Objectives 14.

- Git a version control system (VCS)
- Git Basics
- Git Clients
- GitHub a Web-based Git

CICE Modifications:

Preparation and Participation

1. A Learning Specialist will attend class with the student(s) to assist with inclusion in the class and to take notes.
2. Students will receive support in and outside of the classroom (i.e. tutoring, assistance with homework and assignments, preparation for exams, tests and quizzes.)
3. Study notes will be geared to test content and style which will match with modified learning outcomes.
4. Although the Learning Specialist may not attend all classes with the student(s), support will always be available. When the Learning Specialist does attend classes he/she will remain as inconspicuous as possible.

A. Further modifications may be required as needed as the semester progresses based on individual student(s) abilities and must be discussed with and agreed upon by the instructor.

B. Tests may be modified in the following ways:

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1. Tests, which require essay answers, may be modified to short answers.
2. Short answer questions may be changed to multiple choice or the question may be simplified so the answer will reflect a basic understanding.
3. Tests, which use fill in the blank format, may be modified to include a few choices for each question, or a list of choices for all questions. This will allow the student to match or use visual clues.
4. Tests in the T/F or multiple choice format may be modified by rewording or clarifying statements into layman's or simplified terms. Multiple choice questions may have a reduced number of choices.

C. Tests will be written in CICE office with assistance from a Learning Specialist.

The Learning Specialist may:

1. Read the test question to the student.
2. Paraphrase the test question without revealing any key words or definitions.
3. Transcribe the student's verbal answer.
4. Test length may be reduced and time allowed to complete test may be increased.

D. Assignments may be modified in the following ways:

1. Assignments may be modified by reducing the amount of information required while maintaining general concepts.
2. Some assignments may be eliminated depending on the number of assignments required in the particular course.

The Learning Specialist may:

1. Use a question/answer format instead of essay/research format
2. Propose a reduction in the number of references required for an assignment
3. Assist with groups to ensure that student comprehends his/her role within the group
4. Require an extension on due dates due to the fact that some students may require additional time to process information
5. Formally summarize articles and assigned readings to isolate main points for the student
6. Use questioning techniques and paraphrasing to assist in student comprehension of an assignment

E. Evaluation:

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	Is reflective of modified learning outcomes. **NOTE:** Due to the possibility of documented medical issues, CICE students may require alternate methods of evaluation to be able to acquire and demonstrate the modified learning outcomes
Date:	Wednesday, September 6, 2017
	Please refer to the course outline addendum on the Learning Management System for further information.