GREENVILLE TECHNICAL COLLEGE

Business and Technology Division
Computer Technology
Course Syllabus
C# Programming II CPT 231

Credit/Contact Hours
Prerequisite
Co-requisite
Course Description
Purpose of Course
Required Texts
Additional Materials
Course Outcomes
Program Student Learning Outcomes
Greenville Technical College Core Competencies
Instructional Agreement
Grading Scale
Course Policies

Credit/Contact Hours:
3.0

Prerequisite:
CPT 230

Co-requisite:
None

Course Description:
This course introduces designing, coding, testing and debugging C# programs. Topics include procedural, functional and object oriented techniques; programming; IDEs; .NET; processing data; data types; I/O; decision processing; control structures; modularized coding with methods; and arrays.

Purpose of Course:
This course introduces the student to the syntax and coding of the C# programming language. This includes the design, coding, testing, and debugging of code as well as exception handling and validation to prevent errors.

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Required Texts:

1. Title : C# 2015, Author : J. Murach; ISBN: 9781890774943

2. Must access Blackboard for course-related information.

Additional Materials:

There are no specific course requirements other than attachment 1.

Course Outcomes:

Students who successfully complete this course will have demonstrated the skills required to accomplish the following objectives with a minimum competence level of 70 percent.

1. Students will be able to demonstrate the ability to design, write, debug and test C# programs according to specifications.

2. Students will be able to demonstrate the ability to take initiative by completing a lab assignments with minimal supervision.

3. Students will be able to demonstrate the ability to work under pressure, and show responsibility by completing lab assignments.

4. Students will be able to demonstrate the ability to use Microsoft Visual Studio.NET for developing C# applications.

5. Students will be able to demonstrate a basic proficiency in the use of C# syntax to include data types, control structures, arrays, event procedures, functions, methods and classes.

The objectives of the CPT 231 course are intended to meet the CPT/Programming program level student learning outcomes numbered 2 and 6 below.

Program Student Learning Outcomes:

Upon successful completion of the CPT/Programming program, the graduate will be able to:

1. Students will be able to analyze, design, develop, and document solutions that will satisfy the information needs of business users using established design methodologies and standards.
2. Students will be able to design, create, test, and document logical programming solutions to prescribed specifications following established

standards and using current development environments and languages for application development and database management.

3. Students will be able to demonstrate the knowledge and ability to install and maintain microcomputer hardware and operating system software.
4. Students will be able to demonstrate the use of a minimum of three business application software packages.
5. Students will be able to demonstrate fundamental team building, project management, and presentation skills by participating in team projects that include team goals and values, a development methodology for documentation and coding, group presentations, and exposure to topics such as diversity, time management, and goal setting.
6. Students will be able to demonstrate the ability to take initiative, assume responsibility, and work under pressure with minimum supervision by successfully completing "hands-on" computer lab assignments.

Greenville Technical College Core Competencies:

Communication Core Competency: Students will demonstrate effective written and oral communication skills to convey information, ideas, or opinions.

- Written Communication: Students will demonstrate effective written communication skills to convey information, ideas, or opinions.
- Oral Communication: Students will demonstrate effective oral communication skills to convey information, ideas, or opinions.

Critical Thinking Core Competency: Students will demonstrate effective reasoning, problem solving, or quantitative skills to develop an opinion or conclusion.

- Critical Reasoning: Students will employ inquiry, analysis, and synthesis of information to formulate and/or evaluate an opinion or conclusion.
- Problem Reasoning: Students will design and formulate a strategy to answer a question or achieve a desired goal.
- Quantitative Reasoning: Students will be able to analyze numerical information or observable facts resulting in informed conclusions.

Information Literacy Core Competency: Students will be able to locate, evaluate, and use information effectively from diverse sources.

Professionalism Core Competency: Students will demonstrate conduct and etiquette appropriate to the community and chosen career.

- Professionalism: Students will display professional conduct and work habits.
- Teamwork: Students will collaborate with others to accomplish a shared goal.

Instructional Agreement:
This syllabus is an agreement between the student and instructor concerning course objectives, course content, grading and other policies and procedures particular to the course as well as any posted program, departmental, and divisional policies. It is also the student's responsibility to become familiar with the Student Handbook/College Catalog found in the Student Resource area of Blackboard.

Grading Scale:
GRADING POLICY

Exams represent 65 percent of the final grade: 50 percent tests and 15 percent final exam.
Assignments and quizzes count 25 percent of the final grade. A group coding project accounts for 10 percent of the final grade. Assignment and quiz work will be due each week of the course.

All assignments and quizzes must be completed and submitted to the instructor by the due date in order to receive credit.

Final letter grades will be issued as follows:

$$A = 90 - 100$$
$$B = 80 - 89$$
$$C = 70 - 79$$
$$D = 60 - 69$$
$$F = 0 - 59$$

Course Policies:
Disabilities Information

Students with disabilities, including those who were served in Special Education (resource or tutorial), should contact Student Disability Services (SDS) to discuss their need for services and accommodations. The main SDS office is located on the Barton Campus in the Student Center Building 105, office 113.

Staff can be reached by phone at 864 250-8202 or via email to DisabilityServices@gvltec.edu . Appointments are available at all satellite campus locations. Please check the GTC website for

more information concerning Student Disability Services:
http://gvltec.edu/disability-services/

Efforts have been made to ensure all materials presented in an electronic format are accessible for students with disabilities and the college is committed to this obligation. However, if you experience any difficulty accessing these materials please notify your instructor immediately so a solution can be provided. You may also contact Student Disability Services directly at 864-250-8202 or by email at DisabilityServices@gvltec.edu.

Students who need a PDF reader for accessibility of course documents presented in PDF format may download a free reader at https://acrobat.adobe.com/us/en/products/pdf-reader.html

Starfish

We care about your success! Greenville Technical College is proud to offer Starfish, a software tool designed to promote student success through coordination and communication between students, instructors and support staff.

When you set up your profile in Starfish, you can connect with services, faculty and staff at Greenville Technical College. The link to Starfish is located in Blackboard. Throughout the term, you may receive emails regarding your attendance, course grades or academic performance.

To benefit from this software, it is important that you check your Greenville Technical College Gmail regularly and read the Starfish alerts. If your academic performance begins to drop, you may also be contacted directly by a Success Coach or the Student Success Center.

Start, Stay, Succeed!

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CPT 231 – Main Topics

Chapter / Topic

Chapter 12 Introduction to classes

Chapter 17 Introduction to database programming

Chapter 18 How to work with data sources and datasets

Chapter 19 How to work with bound controls and parameterized queries

Knowledge Test (Covers Chapters 12, 17, 18, and 19)

Chapter 20 How to use ADO.NET to write your own data access code

Coding Ability Test

Chapter 21 How to work with files and data streams

Chapter 22 How to work with XML files

Chapter 23 How to use LINQ

Chapter 24 How to use the Entity Framework

Knowledge Test (Covers Chapters 20, 21, 22, 23, and 24)

Coding Ability Test

Chapter 25 How to enhance the user interface

Chapter 26 How to deploy an application

Chapter 14 How to work with inheritance

Chapter 16 How to organize and document your classes

Knowledge Test (Covers Chapters 25, 26, 14, and 16)

Coding Group Project

Final Exam (Comprehensive Covers Chapters 12, 14, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26)

NOTE: Hands-on programming assignments and other student projects will be scheduled throughout the semester.