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| **CSC160 –** **APPLICATION DEVELOPMENT** |
| **4 QUARTER CREDIT HOURS (32/16/0/64)** |
| **SUMMER 2016, SPRINTS 1 & 2**  **Section A: Room 008** |

**I. INSTRUCTOR INFORMATION**

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| **Instructor:** | Matt Warner |
| **Phone:** | 801-302-2850 |
| **Email:** | matt.warner@neumont.edu |
| **Office Hours:** | Room 211: Monday – Friday, 9 to 10 am or by appointment |

**II. COURSE DESCRIPTION**

This course introduces students to various concepts and programming standards for the .NET environment. Topics may include Windows desktop application development, multi-user implementations, and application data persistence management.

**Prerequisites:** DBT130 Databases I (may be taken concurrently) or its equivalent and CSC150 Object Oriented Programming & Design

**III. COURSE OBJECTIVES**

*Aims:*

Gain familiarity with the .NET Framework and available tools used in building and deploying a Windows .NET application. Learn how to create console applications, event-driven architectures, how components interact through interfaces, basic graphical user interfaces using imperative WPF, operate on data sets using LINQ, configure and deploy a .NET application.

*Specific Learning Objectives:*

By the end of this course, students will be able to:

* Show familiarity with the .NET Framework and available tools used in building, configuring, and deploying a .NET Windows application.
* Create user interfaces in the console and by imperative use of WPF controls.
* Create custom event delegates, event argument classes, and events.
* Ensure program functionality with unit tests.
* Connect components of systems together using interfaces.
* Bind UI displays to data sources using event-driven programming.
* Learn how to use LINQ to access XML files.
* Configure and deploy a .NET application.

**IV. INSTRUCTION METHODS**

The majority of class time will involve working on exercises and labs. The daily class time is divided among formal lectures, discussions, demonstrations, exercises, labs, and assessments. It is expected that each student will take notes, work problems, participate in exercises during class, and submit all assigned work.

**V. TEXTBOOK**

Pro C# 5 and the .NET 4.5 Framework, 6th Edition, Andrew Troelsen

ISBN-10: 1430242337, ISBN-13: 978-1-4302-4233-8

**VI. COURSE OUTLINE**

**Assignments and Assessments Weight:**

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| --- | --- |
| **ASSIGNMENT** | **WEIGHT** |
| Exercises and Labs | 90% |
| Participation | 10% |
| **Total** | **100%** |

*Exercises*

Exercises give you a chance to explore class topics through practice, reading, or research.

*Labs*

Labs are hands-on activities that give you an opportunity to apply the theory and techniques discussed in class. Labs will generally build on and add to the knowledge and skills covered in the exercises and class discussions.

The grading procedure for exercises and labs may include paper or electronic submission, and/or a verbal defense of your work, wherein you will present your work either individually or in a group and competently answer oral questions about the material. All work is to be completed individually unless the assignment is specifically designated for group work.

*Participation*

Participation and professionalism points are earned by attending and fully participating in class and turning in course work on time.

**Collaboration Policy**

Although it is useful to discuss possible solutions with others, it is critical that everyone do their own work and write their own code so they can come to a full understanding of course topics. All students are responsible for doing each assignment on their own for individual work, and contributing as a full and active participant in group work. You may not share solutions or source code in any way, including (but not limited to) the following examples:

* Doing an assignment or lab with one or more other students, discussing each aspect of the solution together as you write/type it up
* Completing work for another student to submit or submitting work that is not your own
* Copying another’s work or allowing your work to be copied by anyone else, either electronically, printed out, or manually
* Showing a completed solution to another student in order to help him/her complete it

The preceding list is not exhaustive; if you have questions about whether or not something is cheating, ask the instructor. Any student found to be engaging in excessive collaboration will be reported to Neumont Student Affairs for judicial action.

**Participation, Late Assignment & Make-up Work Policy**:

It is crucial that you understand the material being covered in class before moving on to new topics. To encourage practical experience with class topics in a timely manner, course work will be typically penalized by 10% of the total points earned (to a maximum of 50%) each 24-hour period it is late (excused absences, weekends, and university holidays excepted). The first 10% penalty does not begin until 15 minutes after the due date.

Students whose grade on an assignment or in the course is below a C may resubmit their work to further show they have more completely reached the course objectives. Submissions or resubmissions more than 5 days after the due date must include an additional written submission that answers the following questions:

1. Why is your submission late?
2. What have you learned since the last submission (or since the due date) in relation to the assignment?
3. Describe your level of effort in the course, including your attendance and participation in class.

Typically, the highest grade submissions or resubmissions will receive under this policy is a C.

Group Verbal Pass-off Details: Individual group members not present for a verbal pass-off because of an unexcused absence will not receive credit with their group members for the verbal pass-off portion of their work.

Participation Details: Participation credit cannot be made up and must be completed at the time and place designated by the instructor, regardless of LMS settings.

Excessively late work, poor professionalism, or inadequate project management may further impact your assignment and course grade in addition to these rules.

Excused absences are granted at the sole discretion of the instructor. They are normally only given in extreme cases of documented illness or personal emergency. No absence will be excused that is not a bona fide emergency, including (but not limited to) family reunions, weddings (your own or somebody else’s), transportation problems, or illness not treated by a doctor. You may be asked to provide documentation or other proof that your absence is legitimate. When possible, notify your instructor before missing class or an assessment deadline.

**Tentative Course Schedule**

These units represent a high-level view of the topics for this 10-week course. **This schedule is subject to change without notice.**

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| --- | --- |
| **UNITS** | **TOPICS DISCUSSED** |
| 1 | C# Fundamentals, Visual Studio 2015 |
| 2 | Deployment & Configuration |
| 3 | Interfaces and Generics |
| 4 | Delegates, Events |
| 5 | UI on the Desktop |
| 6 | Reusable Components |
| 7 | Persistence |
| 8 | Extension Methods, LINQ |

**VII. CLASSROOM PARTICIPATION**

Class participation is a major part of learning the concepts presented in this course. Please plan on being present every class period. Academic events of attending class or submitting an assignment, quiz, or exam are reported to the university each calendar week. Students without an academic event for two consecutive weeks will be dropped from the class and given a failing grade.

Participation in interactive class activities such as discussions and labs is an important part of understanding the material being presented. To reduce distractions in the classroom during class discussion time, student laptop computer screens will remain down unless the instructor has announced lab or laptop activity time. Students using their computers outside of authorized lab or laptop activity time will be penalized according to the following rubric:

* 1st Offence: A 5% reduction of the final grade
* 2nd Offence: An additional 15% grade reduction
* 3rd Offence: An additional 25% grade reduction, a failing grade in the course, and expulsion from class.

Additionally, participating in disruptive activities during lab or laptop activity time adversely affects the learning experience of others in the class. Consequently, you may be penalized up to 5% off your final grade each time one of the following infractions occurs:

* Playing/Viewing Games or Media. “Games” includes computer games, card games, internet games, cell phone games, or any other kind of game. “Media” includes any media viewed on your laptop, phone, or any other device.
* Instant messaging, cell phones, email, or web surfing not related to the class.
* Doing work not related to the class, including work for your employer, other classes, projects, etc.
* Anything that is distracting to the learning environment, such as talking out of turn, playing music, leaving and entering the classroom, etc.

Any violations of the classroom participation policy may also be reported to Student Affairs and/or the Dean of Academics for judicial action. Infractions may be reported by any Neumont faculty or staff member.

**VIII. GRADING PROCEDURES**

Grades will be assigned as follows. Fractional percentages are rounded down.

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| --- | --- | --- | --- | --- | --- | --- | --- |
| A | 93% - 100% | B | 83% - 86% | C | 73% - 76% | D | 63% - 66% |
| A- | 90% - 92% | B- | 80% - 82% | C- | 70% - 72% | D- | 60% - 62% |
| B+ | 87% - 89% | C+ | 77% - 79% | D+ | 67% - 69% | F | 0% - 59% |

**IX. ACADEMIC MISCONDUCT**

No cheating, fabrication, plagiarism, or license misuse will be tolerated. According to the Neumont University Catalog, academic dishonesty includes, but is not limited to:

1. Use of any unauthorized assistance in taking quizzes, tests, or examinations;
2. Use of sources beyond those authorized by the instructor in writing papers, preparing reports, solving problems, or carrying out other assignments, and use of sources either before or during a certification exam that contain unauthorized and/or illegal information;
3. The acquisition, without permission, of tests or other academic material belonging to a member of the university faculty or staff;
4. Engaging in any behavior specifically prohibited by a faculty member in the course syllabus or class discussion;
5. Unauthorized file sharing (authorized file sharing guidelines for a class are defined by the instructor); copying work or allowing work to be copied in whole or in part through any means (electronic copy, printed copy, manually-created copy, etc.);
6. Collaboration beyond the scope that is allowed by the instructor;
7. Using deceit to gain academic credit.

The term “plagiarism” also includes, but is not limited to, the use, by paraphrase or direct quotation, of the published or unpublished work of another person without full and clear acknowledgment. It also includes the unacknowledged use of materials prepared by another person or agency engaged in the selling of term papers or other academic materials. While students may reference code created by others as a learning tool, they may not copy code in their assignments. Identical or essentially identical submissions of code will be considered the product of academic misconduct (unless the assignment is explicitly defined as a group assignment for which identical submissions are permissible).

Assignments should be considered individual work and be completed entirely on one’s own unless the instructor explicitly permits collaboration.

Academic misconduct also includes submitting a partially complete or complete LMS quiz/exam from any location other than the designated classroom, unless the instructor has given permission to do so. Submitting or resubmitting a quiz/exam after the designated time period will be considered academic misconduct.

Violations of the Academic Honesty Policy typically result in the following sanctions:

**1st Offense:**

* Score of 0 on assessment
* Judicial probation until graduation
* 10 hours of community service
* Reported to Dean of Academics

**2nd Offense:**

* Student is removed for all current courses for the remainder of the quarter with failing (F) grades.
* Student must have interview and be cleared by the Dean before returning to the normal class schedule for the following quarter.
* 20 hours of community service

**3rd Offense:**

* Student is permanently dismissed from school.

**X. ACCOMMODATIONS FOR STUDENTS WITH DISABILITIES**

Students with diagnosed disabilities may receive appropriate educational accommodations in compliance with the Americans with Disabilities Act (ADA) and Section 504 of the Rehabilitation Act of 1973. Information regarding educational accommodations and Disability Support Services at Neumont is located in the Neumont University *Handbook for Students with Disabilities*. For more information and/or a copy of the handbook, contact student affairs.

**XI. MISCELLANEA**

This document is subject to change. All policies and procedures may be modified at any time according to university policy and instructor discretion. Please see the instructor if you have any concerns or questions.