**CS 371-1 Syllabus**

**Windows Application Development**

**January, 2012**

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| **Instructor:** | Dr. Ed Walker ([ewalker@whitworth.edu](mailto:ewalker@whitworth.edu)) |
| **Contact Info:** | Office: SCI 311  Phone: (509) 777-3472 |
| **Office Hours:** | TWTh 10:00 a.m. 12:00 p.m. |
| **Course Location:** | SCI 308 |
| **Course Times:**  **Required Text:** | M-F 1:00 p.m. – 4:00 p.m.   |  |  | | --- | --- | | http://www.flazx.us/covers/large-0132618206.jpg | C# 2010 for Programmers, 4th Edition  P. Deitel and H. Deitel  2011, Pearson Education  ISBN-13: 978-0-13261820-5 | |
| **Course Description:** | A foundation for developing conventional Windows applications in the C# language, emphasizing object-oriented and component-based programming techniques in the .NET environment. |
| **Course Topics:** | * Increase proficiency in object oriented programming: inheritance and polymorphism * Graphical user interfaces (GUI), Database applications, Web applications, Web services * Advanced C# features: lambdas, delegates, and assemblies, event handling, exception handling, LINQ, generic collections, Silverlight, multithreading. |
| **Learning Methods:** | * Students will learn through presented concepts, text reading, and hands-on programming exercises designed to reinforce concepts. Expect to spend a minimum of 2 hours outside of class for each hour spent in class. Assessment will also consist of regular quizzes and a final group project with project presentation. |
| **Requirements:** | * **Attendance:** Attend class meetings regularly and consistently. This is particularly critical in Jan term where each class is equivalent to 1 week of a regular semester. * **Assignments:** Turn homework in by 4 pm on the designated due date.   + Write clean, legible code developed with a coherent design.   + Comment your code with meaningful comments. * **Late policy**: 25% points deducted for every day an assignment is late. * **Quizzes**: No makeup quizzes however the lowest quiz score will be dropped. * **Blackboard**: Consult Blackboard for all assignments and class information. * **Final Project/Presentation**: There will be NO late acceptance of the final project. |
| **Academic Honesty Policy:** | Please note that I take extremely seriously the university’s policy on the need for academic honesty in all your work. **I refer you to the Whitworth Catalog, and the current Student Handbook, where guidelines on plagiarism and other forms of academic dishonesty are spelled out. Any form of dishonesty in an assignment will lead to a zero on the assignment, and I reserve the right to give a grade of F for the course as well.**  The following examples are not an exhaustive list. These are simply provided for clarification:  **Examples of academic honesty for this class:**   * Turning in one’s own work. * Obtaining help from either the instructor or course grader. * Discussing assignments with fellow student(s). * Submitting one copy for multiple students for projects where the instructor specifically permits or requires students to work together. * Getting or giving help with syntax errors, runtime errors or on how to run the computers. * You may utilize an online source as an information resource, writing your own code and citing the resource site.   **Examples of academic dishonesty (cheating) for this class:**   * Turning in other’s programs or homework as your own. This includes code from online sources. * Copying other’s programs, tests, quizzes, homework answers, etc. * Submitting one copy for multiple students on individual assignments. * Copying someone else’s work and then modifying it to look like your own work. |
| **Grading Standards:** | To receive an A for the course, you must perform extraordinarily well. "A" students fulfill all the required assignments on time, excel in quizzes and take the initiative beyond the required, to extend their learning and understanding of Windows Application Development.   |  |  | | --- | --- | | **Course Component** | **% of Total Points** | | Homework, Labs | 40% | | Quizzes | 20% | | Attendance, Participation | 20% | | Final Project | 20% |  |  |  | | --- | --- | | **Total % Earned** | **Grade** | | 94% - 100% | A | | 90% - 93% | A- | | 80% - 89% | B- to B+ | | 70% - 79% | C- to C+ | | 50% - 69% | D- to D+ | | 0%  - 49% | F | |
| **Special Needs:** | Whitworth University is committed to providing its students access to education.  If you have a documented special need that affects your learning or performance on exams or papers, you will need to contact the Educational Support Office (Andrew Pyrc – ext. 4534) to identify accommodations that are appropriate. |
| **Evaluation Guide for Programming Problems:** | NOTE: The following general guide illustrates how your projects (and some assignments) are assessed. Individual assignments may vary.   |  |  | | --- | --- | | 25% | **Problem analysis**: Does the design exhibit a **general understanding of the problem**, even though it may not work correctly? | | 50% | **Execution and Results**: Does the project **work correctly** and generate the correct answer(s) according to the problem specifications? | | 15% | **Quality and Maintainability**: Is the project **well designed**, contains comments and contains clean code that follows recommendations given in class, the book and study guides? | | 10% | **Efficiency and Creativity:**  Top projects designs show **ingenuity**, **creativity**, and **efficiency** as well as being **readable and easy to follow**. | |
| **Solving Difficult Problems:** | During the course of the semester you will encounter difficult and challenging problems. You may not be able to solve all problems by yourself. Use the following guide to help you approach these types of problems:   * Read the problem statement carefully ( 2-3 times ) * Refer to the class handout for problems that may be similar to the problem you were given. Read the handout carefully and the assigned reading carefully. * Refer to any additional materials that your instructor provides. * Attempt to solve the problem by yourself. * If you still have problems, discuss the problem with your fellow students. We encourage you to form “study discussion groups” to discuss possible solutions (at a high level) to the programming problems, but we discourage “group programming” or sharing code except on specific group projects **when specified**.   If you still have difficulties seek out your instructor. |
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**CS 371-1 Windows Application Development**

**Tentative Schedule, Jan, 2012**

**NOTE**: Detailed assignments and lecture notes will appear on Blackboard as this course progresses.

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| **DATE** | **TOPIC** | | **READING** | **DUE** |
|  | | ***Introduction to C# Fundamentals*** |  |  |
| Tues 3 | | Intro to .NET, C# applications and basic GUIs | Ch 1, 2, 3 |  |
| Wed-4 | | Basic classes/ control statements/ Methods | Ch 4, 5, 6, 7 | HW1 |
| Thur-5 | | Arrays | Ch 8 | HW2 |
| Fri-6 | | Introduction to LINQ and List Collection | Ch 9 |  |
|  | | ***A Deeper Look at OO Programming*** |  |  |
| Mon-9 | | Classes and objects | Ch 10 | **QUIZ 1**  HW3 |
| Tues-10 | | Object-oriented inheritance, Polymorphism | Ch 11, 12 |  |
| Wed-11 | | Interfaces and Operator Overloading,  Exception Handling | Ch 12 (cont) and Ch 13 | HW4 |
|  | | ***Windows Application*** |  |  |
| Thur-12 | | Graphical User Interfaces with Windows Forms / Event Handling | Ch 14, 15 | **QUIZ 2** |
| Fri-13 | | Strings and Characters/ Files and Streams | Ch 16, 17 | **Final Project proposal** |
| Mon-16 | | ***NO class: MLK Jr. Day*** |  |  |
| *Tues-17* | | Databases and LINQ | Ch 18 | **QUIZ 3**  HW5 |
| Wed-18 | | Web Applications | Ch 19 |  |
| Thur-19 | | Silverlight and Rich Internet Applications | Ch 29 | HW6 |
| Fri-20 | | Web Services/Open Lab | Ch 28 |  |
| Mon-23 | | WPF Graphics/Open Lab | Ch 25 |  |
| Tues-24 | | Open Lab |  |  |
| Wed-25 | | **Final Project Presentations** |  | **Final Project** |