# 3460:421 Object-Oriented Programming

# Spring 2016

# Instructor Information

Instructor Email Office Location & Hours

Tyler Sutton tsutton@uakron.edu Time: 1-2pm; Location: TBD

## General Information

## **Description**

Object-oriented programming (OOP) is the widely used methodology for designing and implementing modern software systems. This course shall cover many topics in object-oriented programming, including classes, inheritance and polymorphism, interfaces and other OOP techniques using C#.

# **Objectives**

- To understand the fundamentals of designing a class
- To apply OOP principles in the development of a software system
- To evaluate OOP design in other people's code
- To create software from scratch utilizing OOP methodologies.

#### **Course Outline**

The following topics that will be covered include, but are not limited to:

- 1. Intro to C# and .NET
- 2. Classes
- 3. Inheritance
- 4. Polymorphism
- 5. Interfaces
- 6. Extension Methods
- 7. Generics

## **Textbooks**

Clark. Beginning C# Object-Oriented Programming (2nd Edition 2013 Edition) Apress, 2013.

# Grading

#### Content

- 60% Programming Projects
- 40% Exams

## Scale

A: 90 - 100; B: 80 - 89; C: 70 - 79; F: Less than 70

Plus/minus grades assigned at my discretion.

### **Policies**

#### **Attendance**

Students are expected to attend all class meetings prepared and to participate. You may be dropped from this course and receive an "F" on your transcript for repeated absences (BOT Rule 3359-20-05D, effective 2/14/2013).

All cell phones, pagers, beepers, etc., are to be turned off or switched to manner mode during class. MP3 players are not to be used during lecture. The use of laptops or tablets is allowed, provided that they are not a distraction, and that they are used in a way that supports the student's participation in class (taking notes, looking up additional references). This policy will change if it is abused.

# Homework and projects

Homework will involve reading papers, articles, or other online content and writing a report. Reports will be evaluated on their content, but you will be expected to write professionally (i.e., proper use of language, grammar, and spelling).

Projects will include both C# implementations and appropriate documentation. Source code will be evaluated on correctness, style, readability, readability, and the application of concepts presented in the course.

Some projects may include collaborative work with other students in the course. You may also be asked to present and/or demonstrate a final project in front of the class.

All work created for this course will be committed as they are developed into a source code repository (i.e., Subversion). The work must appear in the repository in order to be graded. The use of a repository will assist in the communication between the student and the Instructor and in any collaborative projects. Work is not submitted unless it is committed to the repository.

#### **Exams**

The date of the midterm will be announced in advance. All exams are comprehensive.

#### Grading

The assessment policy for submitted assignments, projects, and exams is designed to encourage students to excel, or to go above and beyond the basic requirements of a project. The policy is:

A grade of **B** can be earned by adequately and correctly completing all of the requirements of an assignment, project, or test. Written components of an assignment must use appropriate grammar and spelling, and submitted software must compile and execute without errors.

A grade of  ${\bf C}$  is earned if the assignment is incomplete or incorrect, but the student has made an obvious effort to address the requirements of the assignment, project, or test.

A grade of **F** is earned if the work is obviously inadequate.

A grade of **A** can be earned only if the work demonstrates a mastery of the subject matter and submitted materials are of the highest quality. Written components are well thought out and presented. Submitted software is well designed, efficiently implemented, and thoroughly documented.

#### Scholastic Honesty and Professional Integrity

All work turned in for grade is to be exclusively the work of the student whose name appears on the work. Incidents of academic dishonesty (such as cheating or plagiarism) will be handled in accordance with

university policy by the Office of Student Conduct. In particular, the use of sources other than the textbook without citation, including other books and the World Wide Web, will be viewed as plagiarism.

# Dropping and withdrawing

Students whose names do not appear on the university's official class list by September 8 will not be permitted to participate (attend class, take exams or receive credit).

Students may drop a course online through September 14. Courses dropped by this date will not appear on a student's transcript. Students may withdraw from a course online (without my signature) through October 19. A "WD" will appear on the student's transcript.

The academic calendar can be found at: https://www.uakron.edu/registrar/dates/index.dot.

### Accessibility

Any student who feels that she or he may need an accommodation based on the impact of a disability should contact the Office of Accessibility at 330-972-7928. The office is located in Simmons Hall, 105.

#### Disclaimer

The syllabus is subject to change with advanced notice.