Instructor: Will McWhorter, Ph.D.
Office: Online Only
Telephone: 903-434-8223 (NTCC Office)
Email: William.McWhorter@tamuc.edu

Course Value: 3 Semester Hours

Office Hours:
In addition to being your adjunct professor this semester, I am a full time Computer Science professor at Northeast Texas Community College (NTCC) located near Mt. Pleasant, TX. My office location there is Math / Science Building – Office L. Here are my Fall 2015 Office hours there in case any of you happen to be in the area or need to call.

Monday, Wednesday: 9:00-9:30, 3:00-3:30
Tuesday, Thursday: 9:00-10:30, 1:00-3:00

Course Description:
This course emphasizes current techniques in object oriented design, analysis, and programming. Such topics as encapsulation, information hiding, inheritance and polymorphism are studied in class assignments and programming exercises. The C++ programming language is utilized along with the UML modeling language. Prerequisite: CSci 270 or permission of instructor.

Student Learning Objectives: Students in the course should meet the following objectives.

- Students will demonstrate an understanding of the basics of the C++ language.
- Students will demonstrate an understanding of design and implementation of classes and objects including creating UML diagrams.
- Students will understand and successfully implement friend functions/classes, operators, static members/functions, and const members/objects as they relate to object oriented programming.
- Students will understand and successfully implement inheritance.
- Students will understand and successfully implement polymorphism.

Text:
Title: C++ How to Program, 7th Edition
Author: Paul Deitel and Harvey Deitel
Publisher: Prentice-Hall / Pearson
ISBN 13: 978-0-13-611726-1
ISBN 10: 0-13-611726-0

Other Optional Texts: These are totally optional but if you can find them cheap they are good books to have for reference.

Head First Object-Oriented Design and Analysis, McLaughlin, Pollice, West, O'Reilly

Software Tools
This course will require the use of software tools such as a C++ compiler and UML diagramming program. I recommend the Orwell Dev C++ compiler. It is free to use and not overly complicated. There are other options as well such as Microsoft Visual Studio, and NetBeans (you will have to set up and configure a C++ compiler to work with NetBeans if you choose this option). There are several possibilities for the UML diagramming software. One popular option is Microsoft Visio. If you are looking for a free option, I have used a program called Umbrello which has some nice features including code generation. Umbrello was first designed for Linux but it is available for other operating systems including Windows. To use Umbrello in Windows you have to install the Windows KDE desktop. I will provide you with more information on how to do this later.

Evaluation:
Your grade for the course will be based on the following approximate percentages
Exam 1	15%
Exam 2	15%
Exam 3	20%
Homework/programs/quiz	25%
Project	25%

Program Evaluation: Programs will be graded on a scale of 0 through 100.

0   Nothing was turned in.

10-50   Scales 1-5 will be used for programs that don't compile or run and have major problems and/or very little completion of program requirements. The score will be determined by how many problems there are.

60   A good attempt has been made but program has several problems causing compile and/or run time errors.

70   The program is correct but has a very small amount of easily fixed errors. (This is the highest you can get if your program will not compile.)

80   The program compiles and runs but doesn't meet several requirements.

90   The program compiles and runs but doesn't meet a very minor number of requirements.

100   The program compiles and runs and meets all program requirements.

Letter grades in this course will be assigned according to the following scale:
A   at least 90% of the total points
B   at least 80% but less than 90% of the total points
C   at least 70% but less than 80% of the total points
D   at least 60% but less than 70% of the total points
F   less than 60% of the total points

You must earn an A on you own. Lower borderline grades may be affected by participation and instructor assessment of performance.

Project
Students will be responsible for creating an original software project that integrates object oriented design principles. More information will be provided regarding the project later in the semester.

Students with Disabilities
The Americans with Disabilities Act (ADA) is a federal anti-discrimination statute that provides comprehensive civil rights protection for persons with disabilities. Among other things, this legislation requires that all students with disabilities be guaranteed a learning environment that provides for reasonable accommodation of their disabilities. If you have a disability requiring an accommodation, please contact:

>   **Office of Student Disability Resources and Services**
>   Texas A&M University-Commerce
>   Gee Library- Room 132
>   Phone (903) 886-5150 or (903) 886-5835
>   Fax (903) 468-8148
>   Email: Rebecca.Tuerk@tamuc.edu
>
>   Website: Office of Student Disability Resources and Services
>   http://www.tamuc.edu/campusLife/campusServices/studentDisabilityResourc
>   esAndServices/

Syllabus Change Policy
The syllabus is a guide. Circumstances and events, such as student progress, may make it necessary for the instructor to modify the syllabus during the semester. Any changes made to the syllabus will be announced in advance.

Student Conduct

All students enrolled at the University shall follow the tenets of common decency and acceptable behavior conducive to a positive learning environment. (See current Student Guidebook*).*

Students should also consult the Rules of Netiquette for more information regarding how to interact with students in an online forum: Netiquette http://www.albion.com/netiquette/corerules.html

Nondiscrimination Notice
Texas A&M University-Commerce will comply in the classroom, and in online courses, with all federal and state laws prohibiting discrimination and related retaliation on the basis of race, color, religion, sex, national origin, disability, age, genetic information or veteran status. Further, an environment free from discrimination on the basis of sexual orientation, gender identity, or gender expression will be maintained.

Academic Ethics
Any conduct leading to violation of the University's Policy on Academic Integrity including cheating, plagiarism, misrepresentation, or falsification is subject to a number of disciplinary penalties including the possibility of failure in the course and expulsion from the university.

Absences
Since this is an online course there are no official face to face meetings. However, students are expected to complete all the assigned readings and view all online class lectures. All assignments must be turned in ON TIME. Any student wishing to withdraw from the course must do so officially as outlined in the class schedule. THE INSTRUCTOR CANNOT DROP OR WITHDRAW ANY STUDENT.

Drops
If you feel that you need to drop the course, please discuss it with me and DO NOT MISS THE LAST DAY TO DROP DATE IF YOU CHOOSE TO DROP.

Course Schedule Note
Please realize that the nature of the material in this course is comprehensive. Once a topic is covered, it is expected that you will remember and understand the concept so that you can build upon your knowledge throughout the course.

Online Course and eCollege Technology Requirements

- To fully participate in online courses you will need to use a current Flash enabled browser. For PC users, the suggested browser is Google Chrome or Mozilla Firefox. For Mac users, the most current update of Firefox is suggested.
- You will need regular access to a computer with a broadband Internet connection. The minimum computer requirements are:
  - 512 MB of RAM, 1 GB or more preferred
  - Broadband connection required courses are heavily video intensive
  - Video display capable of high-color 16-bit display 1024 x 768 or higher resolution

- You must have a:
  - Sound card, which is usually integrated into your desktop or laptop computer
  - Speakers or headphones.
  - *For courses utilizing video-conferencing tools and/or an online proctoring solution, a webcam and microphone are required.

- Both versions of Java (32 bit and 64 bit) must be installed and up to date on your machine. At a minimum Java 7, update 51, is required to support the learning management system. The most current version of Java can be downloaded at: JAVA web site http://www.java.com/en/download/manual.jsp

- Current anti-virus software must be installed and kept up to date.

- Run a browser check through the Pearson LearningStudio Technical Requirements website. Browser Check http://help.ecollege.com/LS_Tech_Req_WebHelp/en-us/#LS_Technical_Requirements.htm#Browset

Running the browser check will ensure your internet browser is supported.
       Pop-ups are allowed.
       JavaScript is enabled.
       Cookies are enabled.

- You will need some additional free software (plug-ins) for enhanced web browsing. Ensure that you download the free versions of the following software:
  - Adobe Reader https://get.adobe.com/reader/
  - Adobe Flash Player *(version 17 or later)* https://get.adobe.com/flashplayer/
  - Adobe Shockwave Player   https://get.adobe.com/shockwave/
  - Apple Quick Time   http://www.apple.com/quicktime/download/

- At a minimum, you must have Microsoft Office 2013, 2010, 2007 or Open Office. Microsoft Office is the standard office productivity software utilized by faculty, students, and staff. Microsoft Word is the standard word processing

software, Microsoft Excel is the standard spreadsheet software, and Microsoft PowerPoint is the standard presentation software. Copying and pasting, along with attaching/uploading documents for assignment submission, will also be required. If you do not have Microsoft Office, you can check with the bookstore to see if they have any student copies.

- For additional information about system requirements, please see: System Requirements for LearningStudio
https://secure.ecollege.com/tamuc/index.learn?action=technical

Online Access and Navigation in eCollege

Pearson LearningStudio (eCollege) Access and Log in Information

This course will be facilitated using Pearson LearningStudio, the learning management system used by Texas A&M University-Commerce. To get started with the course, go to myLeo.   http://www.tamuc.edu/myleo.aspx

You will need your CWID and password to log in to the course. If you do not know your CWID or have forgotten your password, contact Technology Services at 903.468.6000 or helpdesk@tamuc.edu**.**

It is strongly recommended you perform a "Browser Test" prior to the start of your course. To launch a browser test, login to Pearson LearningStudio, click on the "My Courses" tab, and then select the "Browser Test" link under Support Services.

Pearson LearningStudio Student Technical Support
Texas A&M University-Commerce provides students technical support in the use of Pearson LearningStudio.

Technical assistance is available 24 hours a day/ 7 days a week.

If you experience LearningStudio (eCollege) technical problems, contact the LearningStudio helpdesk at 1-866-656-5511 (toll free) or visit Pearson 24/7 Customer Support Site   http://247support.custhelp.com/

The student help desk may be reached by the following means 24 hours a day, seven days a week.

- **Chat Support:** Click on *'Live Support'* on the tool bar within your course to chat with a Pearson LearningStudio Representative.

- **Phone:** 1-866-656-5511 (Toll Free) to speak with Pearson LearningStudio Technical Support Representative.

Accessing Help from within Your Course: Click on the *'Tech Support'* icon on the upper left side of the screen inside the course. You then will be able to get assistance via online chat or by phone.

Note: Personal computer problems do not excuse the requirement to complete all course work in a timely and satisfactory manner. Each student needs to have a backup method to deal with these inevitable problems. These methods might include the availability of a backup PC at home or work, the temporary use of a computer at

a friend's home, the local library, office service companies, an Internet cafe, or a bookstore, such as Barnes & Noble, etc.

Policy for Reporting Problems with Pearson LearningStudio

Should students encounter Pearson LearningStudio based problems while submitting assignments/discussions/comments/exams, the following procedure **MUST** be followed:

1. Students must report the problem to the help desk. You may reach the helpdesk at 1-866-656-5511.
2. Students **MUST** file their problem with the helpdesk and obtain a helpdesk ticket number
3. Once a helpdesk ticket number is in your possession, students should email me to advise me of the problem and to provide me with the helpdesk ticket number
4. At that time, I will call the helpdesk to confirm your problem and follow up with you

PLEASE NOTE: Your personal computer/access problems are not a legitimate excuse for filing a ticket with the Pearson LearningStudio Help Desk. You are strongly encouraged to check for compatibility of your browser **BEFORE** the course begins and to take the Pearson LearningStudio tutorial offered for students who may require some extra assistance in navigating the Pearson LearningStudio platform. **ONLY** Pearson LearningStudio based problems are legitimate.

myLeo Support
Your myLeo email address is required to send and receive all student correspondence. Please email helpdesk@tamuc.edu or call us at 903-468-6000 with any questions about setting up your myLeo email account. You may also access information at myLeo. https://leo.tamuc.edu

Learner Support
Go to the following link One Stop Shop- created to serve you by attempting to provide as many resources as possible in one location.
http://www.tamuc.edu/admissions/onestopshop/

Go to the following link Academic Success Center- focused on providing academic resources to help you achieve academic success.
http://www.tamuc.edu/campusLife/campusServices/academicSuccessCenter/

Tentative Course Topic Schedule

Week	Monday of Week	Topic Scheduled
1	August 31	Introduction to Object Oriented Principles
2	September 7	Review of C++ Basics
3	September 14	Introduction to Classes and Objects UML and Class Design Basics
4	September 21	*Labor Day (Monday Sept 7)* UML and Class Design Basics
5	September 28	**Exam 1** Classes: A Deeper Look, Part 1 Constructors and Destructors
6	October 5	Classes: A Deeper Look, Part 2 Composition, Friends, Constant, Static, etc.
7	October 12	Operator Overloading
8	October 19	T.B.A.
9	October 26	**Exam 2**
10	November 2	Object-Oriented Programming: Inheritance
11	November 9	Object-Oriented Programming: Polymorphism
12	November 16	Other Topics: Multiple Inheritance
13	November 23	Templates *Thanksgiving Break*
14	November 30	T.B.A.
15	December 7	Project Presentations Review for Final Exam
16	December 14	Final Exam