
COSC 171: Problem Solving with Computers

Class Schedule:

Monday, Wednesday & Friday at 2:00 -2:50 in Frey 241, Frey145 or Frey 166

Instructor: D. Scott Weaver

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Course Description

This course gives the student a broad and hands-on exposure to the capabilities and uses of the computer. In this course you will study a number of problems that computers can solve and various tools (programs or applications) used for these solutions. There will emphasis on application programs like spreadsheets, databases, and the Internet. There will be a team project in which students will design and launch web sites that will benefit web surfers practically, spiritually or in both ways.

You will be learning about computer vocabulary, culture, and artificial intelligence to better adapt you for life and work in the 21st century.

Course Prerequisites

There are no prerequisites to CSC 171. No previous experience with computers is assumed. This course satisfies the three hour general education requirement for a course in mathematical sciences.

Course Goals

- To practice problem solving using computer software.
- To learn the Windows operating systems to format disks, and store, copy, delete, and organize files.
- To learn the HTML language and how to make attractive web sites and check the use.
- To learn about graphics programs.
- To use spreadsheets [Quattro Pro or Excel] to solve numerical problems and to present data graphically.
- To practice elementary database operations.
- To learn about computer culture and what the computer can and can not do...

Laboratory assistants are available in Frey 166 during posted hours. Some help is available at the mathematics help room (Frey 351) Monday through Thursday evenings.

Grading Policy

1. Participation and Attendance (10%)
 2. Exams and Equally Weighted Final (40%)
 3. Presentation of one project to the class (5%)
 4. 12 Projects (45%)
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Course Policies

1. Attendance will be taken at every class. Each student is responsible for the material covered and the announcements made in every class. If you are sick, have another student take notes for you and pick up any handout sheets for you.
2. Laboratory reports must be written individually. Each student will write his own report.

PLAGIARISM IN ALL FORMS MUST BE AVOIDED. Use quotes when using material written by others and use footnotes for closely allied material.

3. All written work is to be submitted on or before the due date.
4. Students **MUST DO THEIR OWN WORK!** Getting help on a concept is acceptable, but copying another's work will be treated as plagiarism resulting in a zero for the project. You may get help on a problem, but copying someone's work (so easy to do on computers) is forbidden!! Working in groups is the only exception to this.
5. Students who are well versed in computer science (you know who you are) should plan on taking one of the labs further than necessary. Talk with me about which lab you want to study further.

Late assignments are penalized at 10% per "class" day, and are not accepted after the second class day. Assignments are due at the beginning of the class.

Projects

General Computer Knowledge:

1. File Management - getting used to the computer environment and backing up your work carefully.
2. Image Editing – modifying graphics and integrating them into a Word document.

The Internet:

3. Internet Exploration - Learn how to search the Internet for information and how to quest for valid, reliable views and facts.
4. Web Site Design - Learn HTML language so that you can create a personal web site or home page.

Simple Programming

5. Simple Programming - Learn to use Logo, a graphics based language to build animations and graphics.

Spread Sheets

6. Spreadsheets - Introduction and advanced Excel techniques using a Personal Budget and developing charts.

Presentation Software

7. Presentations - Learn to use PowerPoint to make a presentation,

Database

8. Creating your record/CD Inventory List using Microsoft Access.

Computer Hardware

9. Computer Assembly – being comfortable taking apart a computer.
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Rules for Computer Projects

You will be able to do all of your computer work in any computer labs like F166 or on your own computer. You will develop a report for each project. The cover page should have your name, the date, the class, and the project number and **MUST** be STAPLED at the top left of the paper. These reports must be written individually (except for Lab 5 which is a team effort lab). You may work in teams of two to do the lab but each student will write his own report. **PLAGIARISM IN ALL FORMS MUST BE AVOIDED.** Use quotes when using material written by others and use footnotes for closely allied material.

Please hand in professional projects with a nice cover page and neat well organized follow-up pages like the page on the right. Everything in your report must be done electronically. This means there should be no hand-written comments. If you need help learning how to put comments on pictures and diagrams, please seek me out.

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My Name

Lab Title

Lab #

CSC 171

Due date

A clever graphic
never hurts**Americans with Disabilities Act**

Any student whose disability falls within ADA guidelines should inform the instructor within the first two weeks of any special accommodations or equipment needs necessary to complete the requirements for this course. Students must register documentation with the Office of Disability Services (Hoffman 101). If you have questions, call extension 5387.

Academic Integrity

Plagiarism representing another's work as your own will surely result in a lower grade in this course, and may result in failing the course depending on its severity. You must document any sources that you use, whether from the Internet, another person, or printed materials. This includes especially the work of other students who are currently taking this course or who have taken this course before. Academic integrity is broader than plagiarism. It includes such things as returning library materials promptly so that you are not keeping another student from completing his or her work.

All students at Messiah College must read and abide by the College's policy on academic integrity, which is found in your Student Handbook and on the Internet at:

http://www.messiah.edu/academics/advising_handbook/academic_policies/integrity.pdf
