COSC 122
Computer Fluency

Course Introduction

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The Essence of the Course

If you walk out of this course with nothing else you should:

Become a sophisticated user by understanding the basic skills and concepts of Information Technology.

This course is more than using apps and Office!

We will answer questions like:

- How does the computer and the Internet work?
- What is a program? How do I tell the computer what to do?
- What are the social challenges of an information society?
- How do I become a life-long productive IT user?

This course shows how technology works, the fundamentals of IT, and how to ***think (and create) differently***.

Technology is For Everyone

It does not matter what discipline you are studying or what job you get in the future, technology is a critical part of your life.

- Business: sales and marketing data analysis and planning
- Science: modern science requires computational experiments
- Arts: digital and artistic creativity, global and social impacts
- Life: Can you live without your phone or the Internet? Can you imagine the technologies in the next 20 years?

Beyond the technology, this course will encourage you to think differently by learning how to communicate precisely, think critically, and problem solve algorithmically.

My Course Goals

My goals in teaching this course:

- Summarize and document the information in a simple, concise, and effective way for learning.
- Strive for ***all*** students to understand the material and pass the course.
- Be available for questions during class time, office hours, and at other times as needed.
- Provide an introduction to computers, applications, the Internet, and simple programming.
- Help students become fluent computer users with an understanding of a wide variety of applications and the capability of life-long productivity with technology.
- Encourage students to continue with other computer science courses.

Course Objectives

1) To understand common computer terminology

2) To learn the basics of networking and Internet applications

3) To be exposed to the fundamental concepts of information representation, abstraction, and algorithmic thinking

4) To try simple programming by creating web sites in HTML and JavaScript

5) To use word processors, spreadsheets, and databases to manipulate, document, and analyze information

6) To appreciate the role and effect of IT in society

Academic Dishonesty

Cheating in all its forms is strictly prohibited and will be taken very seriously by the instructor.

A guideline to what constitutes cheating:

- Assignments
  - Working in groups to solve questions and/or comparing answers to questions once they have been solved (except for group assignments).
  - Discussing HOW to solve a particular question instead of WHAT the question involves.
- Exams
  - All exams are closed book, so no course materials should be present.

Academic dishonesty may result in a "F" for the assignment or course and ***all*** instances are recorded in the Dean's office.

How to Pass This Course

The most important things to do to pass this course:

- Attend class
  - ⇨ Read notes *before* class as preparation and try the questions.
- Attend the labs and do all lab assignments
  - ⇨ Labs are for marks and are practice to learn the material for the exams.

To get an “A” in this course do all the above plus:

- Practice programming and working with applications.
- Do more questions than in the labs. Practice makes perfect.

Systems and Tools

Connect is used for a discussion board, for posting marks, and for anonymous feedback.

- Please use the discussion board and feedback survey.

All software is available in the laboratory at SCI 126/FIP 133.

My Expectations

My goal is for you to ***SHOW UP TO CLASS AND LABS*** and spend the effort to learn the material.

Although this class may be “easy” for some, you will not pass this class without effort and ***attendance***.

- Previous: Avg. mark attending class = 75%, not attending=40%

The course will be very straightforward – If you do the work, you will do well. Some labs teach material on Windows and Microsoft Office, but the web development labs (HTML and JavaScript) will require you to think and work.

Your mark is 90% perspiration and 10% inspiration.

The Lab Assignments

In each lab we will work on computers on a lab assignment.

Lab assignments are worth ***20%*** of your overall grade.

Lab assignments may take ***more than the two hours*** lab time.

You have at ***least one week*** after your lab to complete it.

- No late assignments will be accepted.
- An assignment may be handed in any time before the due date.

Lab assignments are done individually or in groups of two depending on the assignment.

The lab assignments are critical to learning the material and are designed to prepare you for the exams!

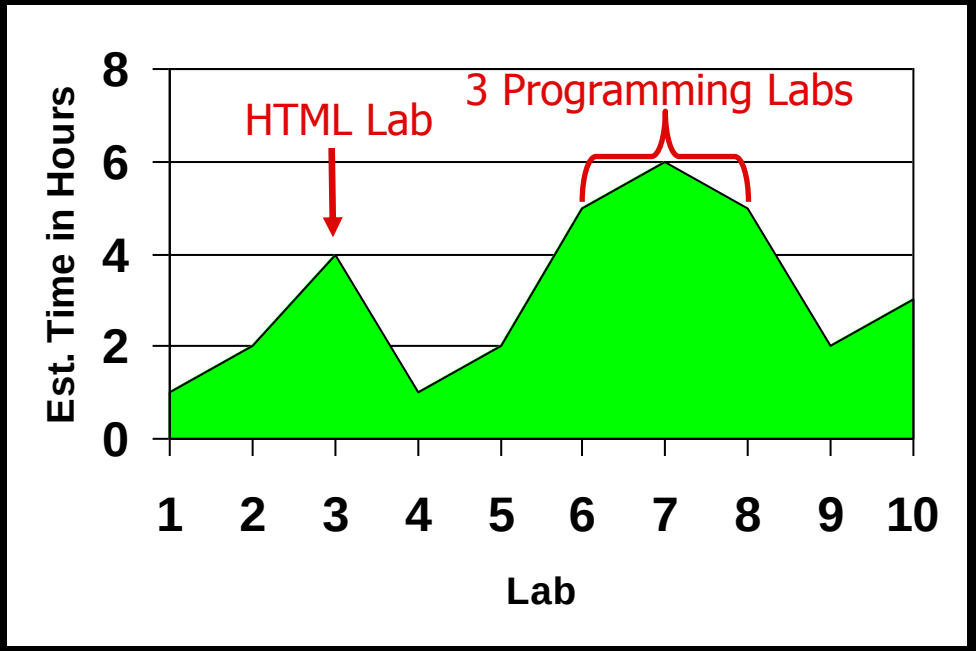
Lab Workload

The lab is two hours long, but you may require more or less time to complete the lab.

- Some labs will be done very quickly while others will require many hours outside the lab time to complete.
- Be prepared for this difference and use the shorter labs at the start of the class to meet your TA and establish good habits.

Lab difficulty by week:

Average: **3 hours**



The In-Class Quizzes

To encourage attendance and effort, ***10%*** of your overall grade is allocated to answering in-class questions.

These questions are answered electronically using a clicker.

- The clicker can be purchased at the bookstore and sold back to the bookstore like a used textbook.
- The clicker is personalized to you with your student number.
- At different times during all the lectures, questions reviewing material will be asked. Reponses are given using the clickers.

There will be at least 100 questions throughout the semester. Each question is worth 1 mark, and you need at least 80 right answers to get the full 10%.

- That is, if you answer 60 questions right, you get 60/80 or 75%. Thus, do not worry if you must miss a class or two or forget your clicker one day!

Why are you here?
Reasons Why People Take This Course

A) I want an easy credit.

B) I want an easy Science credit (Arts Majors).

C) I want to learn more about Microsoft Office.

D) I want to learn more about how technology works.

E) I am interested in computing, web development, programming, or future courses.

What to Learn
What Topic are You Most Interested In?

A) Microsoft Office (Word, Excel, Access)

B) How the Internet/Computers Work

C) Building Web Pages using HTML/JavaScript Programming

D) The Effect of Technology on Society

E) None of the above

What do you expect?
What Grade are You Expecting to Get?

A) A

B) B

C) C

D) D

E) F

Why this Course is Important

This course is designed to introduce the fundamental skills and concepts of Information Technology. You will learn to become a sophisticated user that is knowledgeable about how the technology you use works.

Important results:

- ***Office Software Proficiency*** – Every person needs to know how to use basic office software (editors, spreadsheets, and databases). We will cover these fundamental skills.
- ***The Internet and You*** – We will learn the basics of Internet terminology, how it works, and how it effects you.
- ***Web Development*** – We will build simple web sites using HTML and JavaScript.
- ***Deeper Understanding*** – We will see how technology works and appreciate the awesome capabilities, challenges, and opportunities in Information Technology.