
Colgate University

COSC100 AX & CORE140 AX, Spring 2002 Computers in Arts & Science

Instructor : Chung-Chih Li

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Office Hrs : by appointments via emails

Class meeting times and place:

MWF 09:20 AM ~ 10:10 AM, McGregory 312.

(Attendance will be taken impulsively)

HomePages:

Course http://cs.colgate.edu/~chungli/2002Spring_COSC100/index.html

Lab http://149.43.80.142/CslabWebPages/CS100_Web_pages/default.htm

These webpages contain detailed information about this course, laboratory projects and policy, due dates, and most recent announcements.

Purpose:

The needs for distant communication and giving explanations to massive data constitute the core of any scientific endeavor. Many ideas and theories for such purposes have been well developed. Most of them predate the existence of modern computers. They are not new on the one hand!! On the other hand, computers together with the Internet provide powerful tools that make these ideas more accessible and easy to use. There is literally no serious scientific research can be done without computers in this century. Thus, the purpose of this course is to provide students a general understanding of the concepts behind modern computers and their applications.

Course Description:

This course combines a theoretical study of the underlying theory of the Internet and some basic ideas of data modeling and analysis with a practical study of advanced uses of several computer applications such as web browser, HTML and its editor, and spreadsheet. Internet and the Web constitute the constant background for the course, its lectures, readings, labs, and group projects. However, this course is not designed to teach any specific software. Instead, this course is designed to provide students ability to learn any software and computer package they may need in their future study.

There are no specific prerequisites needed. However, a certain experience of working with computers or surfing the Internet may create an appetite for learning.

Text Books:

The following two textbooks are **required**:

1. **The Internet Book**, by Douglas E Comer, Prentice Hall.
2. **Mastering the Internet and HTML**, by Ibrahim Zeid, Prentice Hall.

The material to be covered in the first half of the semester is most of Chapters 1~20, 22~24 of the first textbook, and Chapters 7~17 of the second textbook.

There is no required textbook for the material to be covered in the second half of the semester. However, students are encouraged to have a book that teaches Microsoft Excel in certain details for preparing the course and projects, and for their further references after the class. The following book is recommended:

- **Microsoft Excel 2000 Bible**, by John Walkenbach, IDG Books Worldwide, Inc.

Examination & Project Due Dates:

1. Midterm 1: 7th Friday, March 8, (in class).
2. Project 1 due: 8th Friday, March 15.
3. Midterm 2: 14th Friday, April 26, (in class).
4. Final Project: Present in the last week, i.e. April 29, May 1 and 3.
 - The final project is a teamwork project. Every four students form a working group and submit a name list of the group to the instructor. Students who do not form their project groups will be assigned to a group by the instructor. No student is allowed to work on more than one group. Every student in a group receive the same score of the project.
5. Final Exam: 2 hours, accumulative, date will be announced.

Grading Policy:

- 50% on writing tests: Midterm 1 (15%), Midterm 2 (15%), Final Exam (20%).
- 50% on laboratories: Labs, Project 1, and Attendance (35%), Final Project (15%).

Special Notes to The Class:

- Cheating and plagiarism and their consequences are defined and described in the booklet *The Colgate University Academic Honor Code*.
- Backup your works. "My dog ate my disk!!" is not a good excuse.

Tentative Topics and Schedules

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Week : Date	Topic	Reading <i>(chapters)</i>	Lab/Project
1st : Jan. 21	Fundamentals of Computer and Networking	IB: 1~7	No Lab
2nd : Jan. 28	History and basic concepts of the Internet, Web, and HTML	IB: 8~11, 22~23.	Lab 1: Get ready, Setup account, Surf the Web
3rd : Feb. 4	How the Internet works	IB: 12~19.	Lab 2: Internet Hunt
4th : Feb. 11	Composing Web pages	MH: 7, 17	Lab 3: Building a Web Page
5th : Feb. 18	More HTML, list, color, image, sound, and frames.	MH: 15	Lab 4: Frames
6th : Feb. 25	Dynamic HTML: Scripts and Forms in HTML	IB: 24, MH: 14	Lab 5: JavaScript, Advanced HTML
7th : Mar. 4	Style Sheet for HTML Review for Exam 1 (Oct 12).	Study for Exam 1	Lab for catching up
8th : Mar. 11	Data Analysis and Excel	Exc: 3~10, 12, 13	Lab 6: Introduction to Excel
9th : Mar. 18	Sprint break week	TBA	
10th : Mar. 25	Excel and Data Modeling	Exc: 28	Lab 7: Probability and Statistics
11th : Apr. 1	Excel Modeling	Exc: 22, 23	Lab 8: Regression Analysis
12th : Apr. 8	Excel Database	Exc: 26	Lab 9: Financial Model 1
13th : Apr. 15	Project Discussion	Exc: 25	Lab 10: Financial Model 2
14th : Apr. 22	Review for Exam 2 (Apr. 26)	Study for Exam 2	Work on Project
15th : Apr. 29	Project Presentation.	Study for Final	Work on Project
16th : May 6	Final Exam		

¹IB: The Internet Book; MH: Mastering the Internet and HTML; Exc: Microsoft Excel 200 Bible.