

CS102 (Cross-listed as MATH 111)

Section 1: TR 9:30am – 10:45am

Section 2: TR 11:00am – 12:15pm

Meeting Place: PB4-1

Optional Lab Work Outside of Class: CH11

3 credits

Instructor

Semester Spring 2004

Instructor Helen Torigoe

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Office CH-11C, (808) 933-3211

Office Hours **Tues & Thurs** 12:30pm to 1:30pm

Wednesday 9am to 11am

or by appointment.

Course Description

This is a hands-on lab course to learn Microsoft Office applications in a scientific application environment. It is specifically designed for Marine Science majors but other science majors will benefit also.

Each class will be lecture/lab format. 80% to 90% will be hands-on work. We cover Outlook (electronic mail), Word (word processing), Excel (spreadsheet), PowerPoint (slide presentation), Access (database), MathCAD (mathematical computations and symbolic processing), and a simple introduction to creating web pages in HTML.

Some examples of the lab work are:

- Create research documents in Word
- Create a budget sheet in Excel
- Select and organize numerical data from an Access database
- Calculate in Excel oxygen concentration at various depths of the ocean
- Create various charts in Excel
- Interpolate the density of water in Excel and export it to MathCAD to create a density contour plot
- Perform curve fit and symbolic integration in MathCAD
- Perform simple statistical analysis in Excel
- Create a slide presentation using PowerPoint
- Write a personal web page in HTML

Prerequisites

Second year high school algebra. Some keyboard skills would be helpful.

Textbooks

The course textbook will be:

Microcomputer Applications for the Sciences, by Dr. John Gersting.

Attendance

Attendance is expected for every class. If for some reason you miss a class, lab work must be made up on your own time. Attendance is required on quiz dates.

Deliverables Deliverables (laboratory/homework assignments) are due on the date noted on the course outline. Deliverables will be evaluated on technical merit and agreement with specifications. Deductions may be made for unreasonable content.

Late labs will be deducted 10% per day, including the weekends. For example, if you turn in an assignment 2 days late I'll grade it as usual and multiply the result by 0.80.

Quizzes Quizzes will be given on the dates specified. Quizzes will be almost completely electronic and administered in the laboratory. No makeup quizzes will be given unless arrangements are made in advance.

Grading and Evaluation The course grade will be determined and weighted as follows:

Deliverables (approximately 20) 50 %

Quizzes (3) 50 %

CS102 Schedule, Spring 2004

Note: This schedule is tentative and subject to change.

Date		Topic	Reading	Assigned	Due
Jan 13	T	Introduction, Course Organization, Grading, Scientific Method, Windows 2000, Notes	Pp. 8-68		
15	R	Accounts, Notes, Outlook AVI, Email Reply, New Mail	Ch. 8	M1, M2, M3 Reply, New mail, Attachment	
20	T	Word AVI, Working with an existing document	Ch. 9 - 10.3.4	W1 Complete resume	M1, M2, M3
22	R	Starting a new document	Ch. 10.4	W2 Research Proposal	W1 Complete resume
23	F	Last day to add			
27	T				W2 Research Proposal
29	R	Summary, Lists and tables, References	Ch. 10.5	W3 Embellishments	
Feb 3	T	Excel AVI, Excel exercise	Ch. 11	E1 Invoice	W3 Embellishments
5	R	Budget in Excel		E2 Budget in Excel	E1 Invoice
10	T				
12	R	Charts in Excel	Ch. 11.10	E3 Adding chart to budget	E2 Budget in Excel
17	T	Excel and Word	Ch. 12	W4 Adding budget table & chart to proposal	E3 Adding chart to budget
19	R	Quiz #1			W4 Add to proposal Quiz #1
24	T	A1 Access Exercise	Ch. 13, 15, 16	A1 Access Exercise	
26	R	Temperature Profiles	Ch. 17	A2 Temperature profile R1 Final Report	A1 Access Exercise
Mar 2	T	Density and Oxygen Concentration		A3 Density Oxygen	A2 Temp profile

4	R				A3 Density Oxygen
Mar 5	F	Last day to withdraw			
9	T	Contour Exercise	Ch. 18	A4 Contour Exercise	
11	R	Contour Plotting (MathCAD)	Ch. 18	A5 Contour plotting	A4 Contour Exercise
16	T				A5 Contour plotting
18	R	Quiz #2			Quiz #2
22-26		Spring Recess			
30	T	Statistical Analysis of DIC	Ch. 19	A6 Statistical Analysis	
Apr 1	R				A6 Stat Analysis
6	T	Curve Fit and Integration Exercise	Ch. 20	A7 Integration Exercise	
8	R	DIC Analysis (Integration of Sea Carbon)	Ch. 21	A8 DIC Analysis	A7 Integration Exercise
13	T				
15	R	PowerPoint	Ch. 22	P1 PowerPoint present.	A8 DIC Analysis
20	T				P1 PowerPoint
22	R	Creating a web page in HTML	Ch. 23	H1 Web page	
27	T				H1 Web page
29	R	Quiz #3			Quiz #3
May 4	T	Final Report			
6	R	No Class			R1 Final Report