Concepts for Advanced Computer Usage

Computer Science 200
Spring 2013

Barbara Daly

CS 200

Essential Information

This document is required reading.
Ignorance of its content will not exempt you from any course requirement.

Course Staff

	**Barbara Daly** Instructor Instructional Support Coordinator	DC 3111, ext 3-6692 bmzister@uwaterloo.ca
	**Alexandra Meinzinger** Lab Instructor	DC 3124 cs200@student.cs
	**Niven Rocha** Lab Instructor	DC 3124 cs200@student.cs
	Aaron Moss (CS Grad Student) Instructional Assistant	

Course Communication

E-mail:

When sending us e-mail, please start the subject line with "CS 200..." (so spam filters can recognize it as ok).

Avoid using hotmail, yahoo, *etc*, which are more likely to be intercepted by spam filters.

CS 200 staff will use your UW account (userid@uwaterloo.ca) if we need to contact you to ensure that we do not release private information to a third person. (This is university policy.) If you wish, you may arrange for email sent to your UW e-mail account to be forwarded to an account of your choosing—see

https://ego.uwaterloo.ca/~uwdir/Update

If you do, it is your responsibility to ensure that e-mail can be received at the forwarded address. In all cases,
you are expected to check your e-mail at least once a day.

Twitter:

Course updates and reminders will be tweeted from @CS200uWaterloo. We will discuss the use and effectiveness of this social media tool throughout the term.

Course Organization (Lectures)

"Lectures" focus on important and/or difficult concepts

learn straightforward material on your own

Attendance is mandatory

you can't expect to do well without attending lectures

there are no useful textbooks

please be on time!

Lectures will usually be a mixture of

things you know & things you don't know

If you bring a laptop to lecture, use it to take notes, but *not* to surf the web, process your email, etc, during lecture; if you do, you'll miss or fail to understand material. There's a reason that accident rates are higher for people using a cell phone in automobiles...

Lecture Strategies

Lecture slides

The slides for each lecture will be available via the "Content: Spring 2013 Lectures" on the CS200 learn.uwaterloo.ca site by 4:00 on the day before lecture. A revised version, fixing any typos discovered during lecture, will be posted by 18:00 on the following day. Other class handouts, if any, will be available in the same location.

The previous term's slides are also available in the Content page of Learn.

These slides are an outline of each lecture; you will need to supplement them with your own notes. They are not a substitute for coming to lecture!

Take notes

these slides are only an outline — they don't stand alone

Review your notes promptly

to fix concepts in your mind

to formulate questions

— not everything is immediately obvious...

high-light key material

Social Media

Each lecture we will briefly look at something discovered in social media that has a powerful impact.

We will be utilizing Twitter as a means of course communication.

Organization (Labs)

Platform

Macs

Where

in MC 3003 (scheduled labs)

on your own machine

(most CS 200 apps are cross-platform)

Lab material will guide your learning

but not — usually — step-by-step

Labs are a mixture of

lecturettes, which typically happen at the beginning of the lab

demos

supervised work on assignments

Assignments

Weekly through Week 12

Due Mondays at 4:00 pm unless otherwise stated.
Generally returned in the first lab of the following week.

Some questions can be done in groups of two.
Be sure you understand what your partner does!

Marking questions / mistakes

must be raised within two weeks of return

Late Policy

10% per day, and at most one week late

Sat & Sun are days

If your assignment is late, marking it has minimal priority

BUT, you have 5 free slip (aka "late") days for emergencies or whatever (your choice)

distributed across assignments as you wish

use them wisely, and don't expect more!

Examinations (1)

The midterm:

Thursday June 20th 10:00 am (in lecture)

Exams emphasize concepts

mostly short essay questions

+ a few fact-testing questions

eg assignment- & lab-based questions

+ a few keyword definitions

50 – 75 % of the essay questions

will be from the CS 200 Study Questions on Learn

with minor modifications / substitutions

Examinations (2)

Understand technical terms (weekly keywords)

so you understand the questions

posted to the Keywords discussion board on Learn

Lab Final

near the end of the lecture period

the lab exam primarily tests your ability

to master new features in familiar applications efficiently

to master new applications efficiently

though of course it assumes you've absorbed the course material

Read the sample exams in the course notes or online *the first week of classes* so you'll know what to expect

Course Outline

Week 1	**(7 May):**	**Course Intro**
Week 2	**(14 May):**	**Styles in Word Processing (MS Word)**
Week 3	**(21May):**	**Pixel Graphics (Adobe Photoshop)**
Week 4	**(28 May):**	**Vector Graphics (Adobe Photoshop)**
Week 5	**(4 June):**	**Application Scripting (MS Excel)**
Week 6	**(11 June):**	**Database Introduction (FileMaker)**
Week 7	**(18 June):**	**Review and Midterm (June 20)**
Week 8	**(25 June):**	**The Web, HTML, & Forms (PageSpinner)**
Week 9	**(2 July):**	**Database Fundamentals (SQL)**
Week 10	**(9 July):**	**Advanced Database (FileMaker)**
Week 11	**(16 July):**	**Application Scripting (FileMaker)**
Week 12	**(23 July):**	**TBA**

+ weekly snippets on

system management, hardware, social media, pearls (know these by heart!),

Marking

Assignments	**~**	**25 %**
Lecture Midterm	**~**	**25 %**
Lecture Final	**~**	**30 %**
Lab Final	**~**	**20 %**

The course marks will be adjusted if appropriate

You must pass the lecture final to pass the course

if you fail the final exam your course mark is your final exam mark

The weightings are subject to change if it is decided to have the Lecture Final during class time.

Administrivia (1)

Course notes are no longer available but relevant support documents are on Learn. They contain:

Introduction to the Course Environment

Readings

Reference material

Study questions

Sample exams

and other useful material

The course message board is located at

learn.uwaterloo.ca

The course web site ("cws") is located at https://www.student.cs.uwaterloo.ca/~cs200/. It contains

staff contact info

access to your marks

sample exams

example projects from previous terms

lecture slides for the current & previous terms

or see "cs200 / cs200 Public / Lectures" on Oscar on Oscar

pearls

FAQs

list of books on reserve in the library

hints on taking notes

assignments for the current & previous terms

or see "cs200 / cs200 Public / Assignments"

Administrivia (2)

The first assignment is due next Monday

(13 May 4:00 pm)

Labs start this week

"CS 200 — Introduction to the Course Environment" on Learn

Schedule:

Section 101 : 1230 - 1420 hours, Tues & Thurs

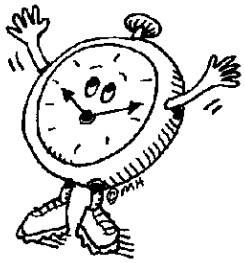
Your Math CAS account

pays for printing you do in the lab

you can't print until your CAS account has money in it

so you need to put money ($10) in your math CAS account

go to CHIP in MC 1052



Administrivia (3)

Handin codes — eg 101DalB

your section number (101 this term)

followed by the first 3 characters of your last name (eg Dal, from "Daly")

followed by the first character of your first given name (eg B, from "Barbara")

Expectations

Our job

is to pick the right things for you to figure out

Your job

is to figure them out!

Answering questions

often we'll suggest how to figure out the answer rather than just telling you

— *learning how to figure things out is more important!*

CS 100/Previous Experience Summary (1)

CS 200 students are assumed to have taken CS 100, or to have a acquired the knowledge imparted by CS 100 from some other source. Here's a capsule summary of CS 100 or highschool content and assumed knowledge.

What IS a computer — the naming of parts

Word Processing

editing, word wrap, "non-printing characters"

character, paragraph, & document attributes

Spreadsheets

cells, cell addressing, cell formulas, cell formatting

named ranges

Simple Programming Concepts

variables, assignment statements, if-statements, loops

procedures & functions

input & output

CS 100 Summary (2)

Networking and Telecommunications

e-mail

the internet

Problem solving with a computer

"If somebody were to drop you into a chair
in front of Word, Excel, or FileMaker,
you could use it effectively to do the usual sort of thing"

CS 200 Summary

Given that you've acquired the requisite background, here's a summary of CS 200's objectives.

Learn how to use computers efficiently;
learn how to *learn to use* computer applications efficiently

give a man a fish, feed him for a day;
teach a man to fish, feed him for a lifetime

The goal:

That you emerge a knowledgeable, efficient user of computer technology, able to

learn new applications efficiently

purchase and maintain your own PC

where "maintain" means

install new software

connect new hardware

maintain file systems

localize problems

explain problems to a technician

Computers are not the point of CS 200;
using computers *well* to do interesting and useful things *is* the point.

CS 200 Emphasis

The emphasis in CS 200 is on important concepts

that transcend particular applications / platforms

that help you learn and work efficiently

There is considerably more emphasis on process, and less on facts, than in CS 100

learning on your own

learning by doing

methodologies for learning

You should come to think of applications as tools,
and expect that most jobs will require moving data between several applications

Quality is important, too, though it's not our primary emphasis. (CS 300?)

More on CS 200 Assumptions — Background

You are assumed to have taken CS 100, or have equivalent background

Everyone will have a bit more here, a bit less there.

You are expected to pick up missing pieces on your own.

(See us for suggestions.)

More on CS 200 Assumptions — Environment

Your computing environment will change rapidly for the foreseeable future:

new & faster hardware, sometimes requiring new versions of your software

new releases of software you're already using, containing new features and sometimes with a changed interface

typically at least once per year

And you're often forced to upgrade software because vendors don't support older versions.

You will need to buy and maintain your own PCs

your company's IT people won't make house calls...

So you need to know a bit about

hardware

operating systems

"file systems"

and become familiar with the standard trade journals

MacWorld	www.macworld.com
PC Magazine	www.pcmag.com
PC World	www.pcworld.com

• • •

in which you will find product reviews and tutorials.

So ... should you take CS 200 this term?

See (also) the cws at

https://www.student.cs.uwaterloo.ca/~cs200/

for

a discussion of the background expected for CS 200

a discussion of course goals

a sample midterm

a sample final

a sample lab exam

last term's lecture overheads and assignments

(some of these require Adobe Acrobat Reader)

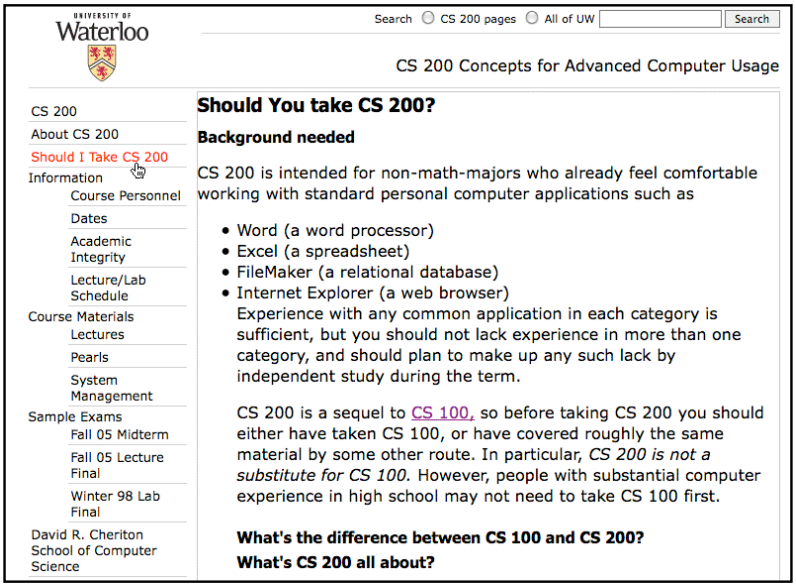
especially the page "descriptions > Should you take CS 200?"

Don't take CS 200 because

there's no room in CS 100

CS 100 doesn't fit into your schedule

you don't want to take two CS courses



Cooperation

with respect to ideas is encouraged

but ...

you punch your own keys

& you do not copy other people's/group's assignments

Thus it's ok to discuss how to do something in general terms (ie *concepts*), but not to

copy/paste another person's answer for an assignment

or to just type it in

If you're not sure what's appropriate

ask us, and/or

state the nature of your cooperation on the assignment

Cheating

From the CS Curriculum Committee:

> Students should be aware of the seriousness of cheating and the penalty associated with it. The standard penalty for cheating will be the assignment of a grade of 0 for the assignment, test, or exam in question, with a minimum deduction of 5% from the final course grade. All such incidents will also be reported to the Associate Dean (Undergraduate Studies) of the student's faculty.
>
> Cheating includes copying from another student's work *or allowing another student to copy from one's own work*, consultation with any unauthorized person during an examination or test, and use of unauthorized aids. University policy regards plagiarism or copying as an academic offense. All material submitted for marking must be the original work of those students submitting the material. A student's signature on an assignment or exam certifies that the material is the student's work and that it does not contravene the University regulations concerning plagiarism, copying or other academic offenses.
>
> It is understood that there will be "gray area" cases in which less than the standard penalty will be appropriate and that in extraordinary cases, heavier penalties, such as suspension or expulsion, may be sought through the appropriate Faculty committee.

How To Do Well in CS 200 (1)

Attend lectures & labs

- Review your lecture notes asap
- high-light key phrases
- identify what you don't understand

Read assignments carefully (preferably more than once!)

- high-light key phrases

DO the assignments!

- & understand what your partner does, when you have one

Practice the pearls

Think about what you're doing

Think about how you're doing it

If assignments consistently take too much time

- talk to a tutor or instructor

How To Do Well in CS 200 (2)

Review the sample lab & lecture exams *this week*

Ask questions!

- they're the best way for us to find out
  - what we've failed to explain
  - whether you understand something
  - that you're especially interested in something
- use office hours
- sometimes the instructor will pause during lecture
  - to let an idea bounce around in your head
  - to give you a chance to ask a question if, as an idea bounces, you're unsure about something

There is typically a short Q & A at the beginning of lecture

Working At Home

You are welcome to do so, but

- some things will be explained only in lab
- that's where we'll help you learn-to-learn

If you work at home

- it is **your** responsibility to ensure, ahead of time, that your files can be opened and read in the lab
- eg: check application versions & file formats

Most software used is available on both Macs & PCs

- eg: through the University computer store (for a price...)
- eg: Excel, FileMaker, FrameMaker, Illustrator, InDesign, MySQL, Photoshop, Word

It is easiest to use a USB stick to transfer files between home and the lab.
Remote file service doesn't work for Windows, FTP doesn't work at all,
and the University has disabled Windows file sharing from the residences.

Finally, for security reasons Rogers and Bell have disabled Windows file sharing over their cable modem and ADSL networks. (Mac file sharing *does* work, however.)