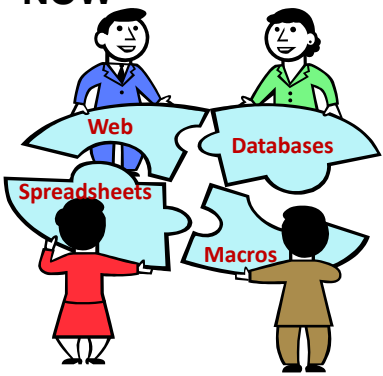



NOW




LATER



CPSC 203

Introduction to practical problem solving

Administrative (James Tam)

- Contact Information
 - Office: ICT 707 
 - Email: tamj@cpsc.ucalgary.ca
- Office hours
 - Office hours: **Tuesday 11:00 – 11:50, Thursday 14:00 – 14:50**
 - If I'm not in my office give me a few minutes or check the lecture room.
 - Email: (any time)
 - Appointment: email, phone or call
 - Drop by for urgent requests (but no guarantee that I will be in if it's outside of my office hours!)



← ← ← □ □ My Office

Course Resources

- Required resources:
 - Course website: <http://www.cpsc.ucalgary.ca/~tamj/203> (Get the notes off the course webpage before lecture)
- Additional resources (external) will be provided for these topics:
 - VBA
 - Java script

How To Use The Course Resources

- They are provided to support and supplement this class.
 - The notes outline the topics to be covered (not sufficient to do well)
 - You will get the details (e.g., explanations) during lecture time

Tips For Success

- When you're in lecture make sure you take your own notes
- If you miss a class then get a copy of someone else's notes

Tam's "House Rules"

- I always endeavor to keep the lecture within the prescribed time boundaries
- You won't pack up and end before time is up



Tam's "House Rules"

- No recordings/captures without permission during class please



- (Recall that learning tends to increase with additional levels of engagement).



Learning Objectives

- Understand basic technological concepts, such but not limited to: the key parts of a computer, the Internet and computer security.
- Practical thinking and problem solving by using pre-created software such as MS-Office. This will include writing simple programs (through VBA macros) as well as using the built in functionality of the office suite.
- Learning the mechanics of building a web page as well as good design principles. Practical thinking and problem solving by augmenting a web page with computer software (written by the student)

Course Outcomes



- You get to learn 3! Count 'em 3 commonly used software packages!



- But wait-there's more!!!

SALE!!!



Course Outcomes (2)

- Employer XYZ wants to hire an Access © database developer or someone familiar with SQL queries now.
- This is what's hot, hot, hot



- But what's hot today may not look so good tomorrow



- Technology changes: get used to it



Course Outcomes (3)

- You will not only learn how to use existing technologies (spreadsheet, database, web builder) but also how to problem solve and create your own new software.
- Problem solving is required in the programming component: VBA office macros and augmenting a web page by writing supplementary software.
- Some corporations have recognized the relationship between problem solving skills and success in the work world:
 - E.g., “Killer” interview questions
 - Google
 - <http://www.businessinsider.com/15-google-interview-questions-that-will-make-you-feel-stupid-2009-11?op=1>
 - Apple
 - <http://www.businessinsider.com/apple-interview-questions-2011-5#how-do-you-test-the-prototype-of-the-vending-machine-5>

What If 203 Still Isn't Technical Enough For You?

- Think this course is too easy?



- There are other introductory courses that may be of interest.
- Both are introductions to problem solving by *writing/creating computer programs*.
 - Program writing (“programming”) is a major component.
 - CPSC 217: For non-Computer Science majors
 - CPSC 231: For Computer Science majors

Image of James courtesy of James Tam, other images from Microsoft

Evaluation Components

- Assignments
- Examinations
- In class bonus quiz questions

Assignments (*40% Of Term Grade*)

- A1: Spreadsheet (Excel): *10% of term grade*
- A2: Database (Access): *10% of term grade*
- A3: Macro programming using VBA (writing a computer programming instructions to augment an existing computer program MS-Office): *10% of term grade*
- A4: Web design and web programming: *10% of term grade*

Assignments: Software Version¹

- It is your responsibility to make sure that your submission works on the machines in MS 236 and MS 237.
- A1 – A3:
 - Microsoft Office 2007 (or newer) is required
- We use a Windows machine to mark whatever you submit (A1 – A4) using MS Office 2010 (A1 – A3, A4 is web-based)

Examinations (*60% Of Term Grade*)

- A mix of short answer and multiple choice questions
- Closed book (don't bring anything into the exam: just yourself and writing implements)
- Midterm examination (*20% of term grade*)
 - Scheduled by your course instructor and will occur during the semester
 - Friday March 6 starting at 6:30 PM and ending at 7:45 PM in MFH 162
 - There's multiple lectures so the exam will be out of class (don't miss it!)
- Final examination (*40% of term grade*)
 - Cumulative but with a focus on topics covered after the midterm
 - The exam occurs during the regular end of term examination period so it will be scheduled by the Office of the Registrar

In Class Bonus Questions (2% Bonus On Term Grade)

- They will be administered using TopHat Monacle
 - <https://app-ca.tophat.com>
- The questions will be ‘randomly’ administered during lecture (only) – no ‘make up’ questions
 - You will be given ample notice before the first questions begin (they won’t start immediately)
 - Note that the questions will act as a ‘bonus’ (you may potentially be awarded an “A” grade even if you receive no marks on the TopHat questions).
 - The questions will be directly related to lecture material.
 - Questions will be lecture specific: to receive a grade for a particular question you need to attend the lecture in which you are registered

Estimating Your Term Grade

- As stated in the course information sheet (official signed document) each major component will be awarded a grade point (and not a percentage)
 - Individual assignment
 - Total score for in-lecture TopHat questions
 - Midterm exam
 - Final exam
- The mapping of raw score to grade point will be posted before each assignment is due (variation between assignments may occur).
- Mapping of TopHat bonus questions to grade point

Percent	96 – 100	91 – 95	86 – 90	81 – 85	76 – 80	71 – 75	65 – 70	61 – 64	56 – 60	51 – 55	46 – 50	< 46
GPA	4.0	3.7	3.3	3.0	2.7	2.3	2.0	1.7	1.3	1.0	0.7	0.0

- The mapping of the midterm to grade point will be posted sometime after the midterm.
- The mapping of final to grade point cannot be provided until after the official term marks have been released (Department policy).

Estimating Your Term Grade (2)

- To determine your weighted term grade point simply multiply each grade point by the weight of each component.
- Sum the weighted grade points to determine the term grade.
- Simple and short example (not exactly the same as this term but it should be enough to give you an idea of how to do the specific calculations required this semester):
 - Assignments:
 - Midterm: weight = 30%, example score = B+
 - Final: weight = 40%, example score = C-

Weighted assignments: $0.3 * 4.0 = 1.2$

Weighted midterm: $0.3 * 3.3 = 0.99$

Weighted final: $0.4 * 1.7 = 0.68$

Total term grade point = $1.2 + 0.99 + 0.68 = 2.87$

Official university listing of letter grades/grade points: <http://www.ucalgary.ca/pubs/calendar/current/f-2.html>


Estimating Your Term Grade (3)¹

A1 GPA	A2 GPA	A3 GPA	A4 GPA	Weighted assignment grade	Midterm GPA	Weighted Midterm	Final exam GPA	Weighted Final	TopHat Bonus GPA	Weighted TopHat	Term GPA (Sum[E,F,I,K])
				0		0		0		0	0


¹ The grade point to letter grade mapping employs the official university cutoffs:

- <http://www.ucalgary.ca/pubs/calendar/current/f-2.html>
- (I may employ a more lenient set of cutoffs at the end of term but the official cutoffs will provide you with a 'worse case' estimate of your grade).

Feedback



What is he talking about???



Wow I am the greatest speaker in the world!

Let me know how things are going in the course:

- Am I covering the material too slowly or too quickly.
- Can you read the slides and my hand writing.
- Can you hear me in the class.
- Etc.

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