University of Calgary
Department of Computer Science

CPSC 203

Introduction to Problem Solving Using Application Software

Course Syllabus

This document contains detailed course information and policies. It is the responsibility of students to know its contents.
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Contents

L01: Jalal Kawash, Course Coordinator
Office: ICT 706
Phone: (403) 220-6619
E-mail: jalal.kawash@ucalgary.ca
Office Hours: TR 11:15 – 12:15, or by appointment
(there will be no office hours during the following dates: Sep. 20th, Oct. 11th, Nov. 1st, and Dec. 6th)

L02: James Tam
Office: ICT 707
Phone: (403) 210-945
E-mail: tam@ucalgary.ca or tamj@cpsc.ucalgary.ca
Office Hours: M (3:00 – 3:50 PM), T (2:00 - 2:50 PM)

L03 & L04: Christopher Marriott
Office: ICT 702
E-mail: dr.chris.marriott@gmail.com
Office Hours: TR 14:00 – 15:00, or by appointment

Course Description and Goals

Calendar description
Introduction to computer fundamentals; contemporary topics, such as security and privacy, and the internet and world wide web. Problem solving, analysis and design using application software, including spreadsheets and databases.
Course Hours: H(3-2T-1)
Notes: This course is not available for credit for Computer Science majors. This course cannot be used to satisfy the Computer Science requirement in the Natural Sciences program. Basic familiarity with personal computers and commonly used software, including word processors, electronic mail and web browsers, will be assumed.

Course outcomes
This course is intended as a first course in computer science for non-majors. By the end of this course, the student will be able to:

- use application software, including *spreadsheets* and *database applications*, more effectively
- think logically and algorithmically to construct computer-based solutions
- apply divide-and-conquer to computer-related problems
- think abstractly about problems and utilize discrete structures, such as sets, graphs, and trees, to formulate solutions
- use data modeling techniques to design large repositories of data
- formulate database queries
- discuss at an introductory level core subjects in the field of computer science , such as computer networks, security, and computer organization
- write introductory-level computer programs, through 3-D animations

Course Structure
This course has lectures and tutorials. The tutorials are lab-like sessions, where exercises are performed on the computers. The lectures are concerned with high-level concepts, and the tutorials constitute complementary low-level skills. The lectures teach the students thinking methodologies and abstract tools required to solve problems in computer science. The tutorials teach the students how to use application software, concrete tools required to carry out a solution.

Textbook
Peeking into Computer Science Second Edition, Jalal Kawash, *Pearson Learning Solutions*, 2010. The book is required.

Microsoft Office 2007
Microsoft Office 2007 is required for the assignments and quizzes. Your submission must also work on a Windows machine. If you use a different MS Office version or a different operating system, it is your responsibility to make sure that your submission works on the machines in MS 236 and MS 237. If we cannot open your file, you will get a 0. If your file gets corrupted due to version incompatibility, we mark whatever you submit on a Windows machine using MS Office 2007.

Top Hat Monocle Subscription
You are required to have a student subscription with Top Hat Monocle. Visit http://www.tophatmonocle.ca/ for more information.

Course Policies and Additional Information

In addition to the policies outlined in the Course Information Sheet (CIS) and the UofC calendar, this course has the following policies:

BlackBoard
BlackBoard is used to communicate with you. It is your responsibility to check BlackBoard regularly for announcements, course information and documents, grades, and other items.

Exams
The midterm and final exams are based on material mainly discussed in the lectures, but will also include material from the tutorials. They have two parts: a multiple choice part and a long-answer, problem solving part. Typically the long-answer part is longer than the multiple choice part and can have more mark weight.
The midterm and final exams are open-book. You must bring your textbook to the exams since certain questions can refer to specific page number in your book. **The final exam is comprehensive**.

Assignments and Quizzes
The tutorials are held in a computer lab and are conducted by TAs (Teaching Assistants). Quizzes are hands-on, i.e., performed on a computer during a tutorial a session. They typically test low-level, how-to skills. They are based mainly on material covered in the tutorials. The quizzes are marked by your TA. Assignments are take-home projects that can be open-ended and test creativity and high-level problem solving skills. They are also marked by your TAs.

Groups
Take-home assignments are performed in groups of 3 students. Teams **must** change from one assignment to another. Teams will be formed in the tutorials around the time when an assignment is released. Teams must be approved by your TA. Part of the learning process is to work in a team and deal with resulting problems. We can help iron out team issues, as long as these are reported no later than **10 days** (**4 days** in a Spring/Summer Session) **before the deadline of the assignment**. Otherwise, we will not listen to any team-related complaints.

Makeup
Makeup for Quizzes and exams can be granted in case of
- **Sickness:** Typically a Dr.'s note is required
- **Participating in sports events:** we are not required to accept participating in sports events as a valid excuse that justifies a makeup. However, at the discretion of the instructor a makeup may be granted provided that an early notice is given by the student. The notice has to precede the quiz/exam date by at least one week.
- **Religious events:** see sports events; same rule applies.
- **Other reasons:** will be looked at on a case-by-case basis. Often evidence in advance is required.

If a makeup quiz or exam cannot be given and the student had a legitimate reason for absence, the instructor can find alternative arrangements with the student, such as re-distributing the weights of the course components.

Academic misconduct

Academic misconduct (cheating, plagiarism, or any other form) is a very serious offence that will be dealt with rigorously in all cases. A single offence may lead to disciplinary probation or suspension or expulsion. The Faculty of Science follows a zero tolerance policy regarding dishonesty. Please read the sections of the University Calendar under the heading "Student Misconduct" (page 49 for 2009-2010).

We will report any suspicious case for investigation.
Similarities in assignment submissions from different teams and quizzes will result in reporting a suspected plagiarism case.

Grade Breakdown

On-line quizzes 10%
Midterm Exam 20%
Final Exam 40%
Tutorials 30% (There are three take-home assignments and three hands-on, sit down quizzes. Each assignment or quiz is worth 5%)

Grading scheme

Each of the above components will be given a numerical percentage score. The final grade will be calculated using as weighted by the percentages given above and then reconverted to a final letter grade using the official scheme:

95 and up	A+
Above 90 and below 95	A
Above 85 and below 90	A-
Above 80 and below 85	B+
Above 75 and below 80	B
Above 70 and below 75	B-
Above 65 and below 70	C+
Above 60 and below 65	C
Above 55 and below 60	C-
Above 50 and below 55	D+
Above 40 below 50	D
Below 40	F

There is an Excel sheet on BlackBoard (under Course Information) that helps you do the calculation.

Submission of Assignments/Quizzes

When submitting a quiz or assignment through BlackBoard, it is **your** responsibility to make sure your submission went through properly. If the submission is not received or you submit the wrong file, you will get a 0 and no makeup will be granted. If your submission is corrupt or incomplete, we mark whatever we receive.

1. Make sure you have all necessary files ready for upload
2. Exit the application used to prepare the file (e.g. MS Access) before uploading
3. On submission, make sure you click SUBMIT (NOT SAVE).
4. After submitting, click on the "**>>View/complete assignment:** " link and open your submitted files to make sure:

   - your files were uploaded properly,

   - they open properly,

   - and your submission is complete.

   This is YOUR responsibility. We mark whatever you submit.
5. If in doubt that the submission process was not right or if BlackBoard is down, send your submission by email to your **TA** and instructor, before the deadline.

Individual requests for extending the deadlines of assignments will not be satisfied under any condition; Assignments not received by the deadline will not be accepted.

Enquiring about your assignments/quizzes

You should contact your TA about any questions related to assignments and quizzes. You can enquire about your mark with the TA, **within three weeks** of receiving our feedback. Enquiries that are made more than 3 weeks after the feedback is returned will be ignored.

Frequently Asked Questions

1. **Are there solutions for the questions in the textbook?**
   At the end of the book there are answers to selected exercise. For the rest, you can discuss your solutions with your instructor.

2. **I have a problem with my grade, whom do I talk to?**
   For quizzes and assignments, you must talk to your TA first. If you are unsatisfied or the TA was not able to help, then you engage the instructor. If after discussing the issue with the instructor, you are still unsatisfied with the instructor's answers, you may bring the issue to the CPSC department associate head (undergraduate affairs). The associate head will refuse to discuss any issues with you, if you have not discussed it with the instructor first.

3. **I have a conflict with the midterm exam. Can I write a makeup exam?**
   This depends on the type of conflict you have. For instance, if it is a UofC regular, scheduled class (part of your degree program), then you will be allowed a makeup. Discuss the issue with you instructor to find out if you qualify for a makeup exam.

4. **Is the final exam cumulative?**
   Yes.

5. **I have a very good reason to ask for an extension for the assignment. Will I be granted one?**
   No, you are given more than three weeks to complete each assignment, and no extensions will be given under any circumstances. You should start working on the assignment as soon as it is posted to avoid being in such a situation.

6. **I have submitted my assignment a few minutes after the deadline. Will it be accepted?**
   No, see the previous question.

7. **I am on a university sports team and I will be away during the submission deadline. Will I get an extension?**
   No, you must submit before you leave.

8. **I cannot finish the assignment on time. Can I submit an incomplete assignment?**
   Yes, this way you may receive a partial mark. If you do not submit anything, you will get a zero.

9. **I could not make it to the quiz. What shall I do?**
   You need to discuss it with your instructor to assess if you qualify for a makeup.

10. **I am on a university sports team and I will be away during the quiz/exam. Will I get a makeup?**
    Generally, we are not required to accept sporting events as a valid excuse to miss a test. It is up to your instructor to allow this or not. You must discuss it with him/her at least one week prior to the test, and the instructor will make a decision.

11. **I forgot to return my quiz question sheet back to the TA. What will happen to me?**
    You will get a zero on the quiz, and we may refer the case to an academic misconduct investigation.

12. **How do I know the details of marking my assignment/quiz?**
    Your TA will give back a sheet explaining the details of your mark.

13. **I have been told that something is wrong with my submission. Can I re-submit after the deadline?**
    No, it is your responsibility to make sure the submission went through before the deadline.

14. **I have pressed SAVE but not SUBMIT on BlackBoard. Can the TA recover and accept the submission?**
    Yes, but it will be a one-time arrangement. Next submission, you must press SUBMIT.

15. **My grade is missing from BlackBoard. What does this mean?**
    This could mean several things. Check with your TA if it is about a lab grade, and check with your instructor if it is an exam grade.

16. **BlackBoard went down and I could not submit the assignment. Shouldn't I get an extension?**

No, you will not get an extension. Send your assignment by email to the TA and you may cc the instructor as well before the deadline.

17. **I had a few minutes before submission closes down and my network went down. Shouldn't I get an extension?**
    No, you should not wait until the last moment to make a submission.

18. **Will we get our midterm and final exams back?**
    No, but you will be allowed to view them.

19. **Where do I view my marked midterm/final exam and what do I need to show to view it?**
    Exams can be viewed in the CPSC main office in ICT 602. You must present a valid photo ID to allow you view it.

20. **Can I go anytime to the CPSC main office to view my marked midterm/final exam?**
    No, the instructor will let you know when you can view your exam. The administrative staff need some time to file and organize your exams, and you cannot view them before the staff are ready.

21. **I have reviewed my midterm/final exam and I think there is a mistake with marking. What shall I do?**
    Book an appointment with your instructor to go over the exam with you.

22. **I have been called by the CPSC main office and they discussed with me a potential plagiarism case. Why is that?**
    The instructors and TAs are required to report to the CPSC department any suspicious cases, no matter how innocent they turn to be. We will not be doing our job, according to the department, if we do not raise the flag on suspicious cases.

CPSC 203 Fall 2012 Calendar

Sun	Mon	Tue	Wed	Thu	Fri	Sat
9 **SEPTEMBER** **Week 1** No tutorials	10 **Classes start** No tutorials	11 Course outline and policies, ice breaker No tutorials	12 No tutorials	13 Chapter 1: intro, spreadsheets, divide & conquer No tutorials	14	15
16 **Week 2**	17 Assignment 1 out Tutorials: Excel lab 1	18 Chapter 1: Spreadsheet design, abstraction Tutorials: Excel lab 1	19 Tutorials: Excel lab 2	20 Chapter 1: Computers, (Tophat test run) Tutorials: Excel lab 2	21 Last day to drop courses	22
23 **Week 3**	24 Last day to add courses Tutorials: Excel lab 3	25 Chapter 1: Coding Chapter 2: Sets Tutorials: Excel lab 3	26 Tutorials: Excel lab 4	27 Chapter 2: Set multiplication, Relations Tutorials: Excel lab 4	28	29
30 **Week 4**	**OCTOBER** 1 Tutorials: Excel lab 5	2 Chapter 3: Graphs Chapter 2: Algorithms Tutorials: Excel lab 5	3 Tutorials: Excel Review	4 Chapter 3: Euler tours Tutorials: Excel Review	5	6
7 **Week 5**	8 **Thanksgiving**	9 Chapter 3: Graph coloring No tutorials	10 **Tutorial Quiz 1** Tutorials: Quiz 1	11 **Tutorial Quiz 1** Chapter 3: Trees & coding Tutorials: Quiz 1	12	13
14 **Week 6**	15 Tutorials: Access lab 1	16 Chapter 3: Finite state machines Tutorials: Access lab 1	17 Tutorials: Access lab 2	18 Chapter 2: Propositional logic Tutorials: Access lab 2	19 **Assignment 1 due** Assignment 2 out	20

Subject to change

Sun	Mon	Tue	Wed	Thu	Fri	Sat
Week 7 21	22 Tutorials: Access lab 3	23 Chapter 2: Implication, Predicate logic Tutorials: Access lab 3	24 Tutorials: Access lab 4	25 Midterm Exam Review Tutorials: Access lab 4	26 **Common Midterm Exam 7:00PM – 9:00PM**	27
Week 8 28	29 Tutorials: Access lab 5	30 Chapter 4: Databases, data modeling Tutorials: Access lab 5	31 Tutorials: Access review	**NOVEMBER** 1 Chapter 4: Database schema Tutorials: Access review	2	3
Week 9 4	5 **Tutorial Quiz 2** Tutorials: Quiz 2	6 **Tutorial Quiz 2** Chapter 4: Simple database queries Tutorials: Quiz 2	7 Tutorials: Alice lab 1	8 Chapter 4: Advanced database queries Tutorials: Alice lab 1	9	10
Week 10 11	12 **Reading Day**	13 **Reading Day**	14 Tutorials: Alice lab 2	15 Chapter 5: Programs, objects and classes Tutorials: Alice lab 2	16 **Assignment 2 due** Assignment 3 out	17
Week 11 18	19 Tutorials: Alice lab 3	20 Chapter 5: Alice, variables, and printing Tutorials: Alice lab 3	21 Tutorials: Alice lab 4	22 Chapter 5: Control flow Tutorials: Alice lab 4	23	24
Week 12 25	26 Tutorials: Alice lab 5	27 Chapter 5: Lists Tutorials: Alice lab 5	28 Tutorials: Alice lab 6	29 Chapter 5: Event handling Tutorials: Alice lab 6	30	**DECEMBER** 1
Week 13 2	3 **Tutorial Quiz 3** Tutorials: Quiz 3	4 **Tutorial Quiz 3** Catch-up, final exam review Tutorials: Quiz 3	5 Tutorials: Assignment 3 Q&A	6 No lectures Tutorials: Assignment 3 Q&A	7 **Last day of classes** **Assignment 3 due**	8

Subject to Change

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