



UNIVERSITY OF CALGARY  
FACULTY OF SCIENCE  
DEPARTMENT OF COMPUTER SCIENCE  
COURSE OUTLINE

1. **Course:** CPSC 522: Introduction to Randomized Algorithms

**Lecture Sections:**

L01, TR 12:30-13:45, Philipp Woelfel, ICT 655, 220-7259, [woelfel@cpsc.ucalgary.ca](mailto:woelfel@cpsc.ucalgary.ca)

Office Hours: T 13:45-14:30

**Course Website:** D2L

**Computer Science Department Office, ICT 602, 220-6015, [cpssc@cpsc.ucalgary.ca](mailto:cpssc@cpsc.ucalgary.ca)**

2. **Prerequisites:** CPSC 413

(<http://www.ucalgary.ca/pubs/calendar/current/computer-science.html#3620>)

3. **Grading:** The University policy on grading and related matters is described in sections F.1 and F.2 of the online University Calendar. In determining the overall grade in the course the following weights will be used:

Assignments	30%
Oral Midterm Test	30%
<i>(Individual Oral Exams will be held between February 13<sup>th</sup> and February 24<sup>th</sup>, 2017)</i>	
Oral Final Examination	40%

This course **will not** have a Registrar's Scheduled Final Exam.

Special Regulations affecting Final grade: Each of the above components will be given a letter grade using the official University grading system. The final grade will be calculated using the grade point equivalents weighted by the percentage given above and then reconverted to a final letter grade using the official University grade point equivalents. **In order to obtain a final grade of C- or better and to pass the course, a student must achieve a weighted average of C- or better on the midterm and final exams.**

4. **Missed Components of Term Work:** The regulations of the Faculty of Science pertaining to this matter are found in the Faculty of Science area of the Calendar. Section 3.6. It is the student's responsibility to familiarize themselves with these regulations. See also Section E.6 of the University calendar.
5. **Scheduled Out-of-Class Activities:** REGULARLY SCHEDULED CLASSES HAVE PRECEDENCE OVER ANY OUT-OF-CLASS-TIME ACTIVITY. If you have a clash with this out-of-class activity, please inform your instructor as soon as possible so that alternative arrangements can be made.
6. **Course Materials:**  
Randomized Algorithms, Motwani and Raghavan, Cambridge University Press (Required)

**Online Course Components:**

Possibly Piazza.

7. **Examination Policy:** All exams are oral. No aids permitted. Students should also read the Calendar, Section G, on examinations.
8. **Approved Mandatory and Optional Course Supplemental Fees:** None.
9. **Writing across the Curriculum Statement:** In this course, the quality of the student's writing in the weighted components of the course will be a factor in the evaluation of these components. See also Section E.2 of the University Calendar.

10. **Human Studies Statement:** Students will be expected to participate as subjects or participants in projects. See also Section E.5 of the University Calendar.

11. **OTHER IMPORTANT INFORMATION FOR STUDENTS:**

- a) **Misconduct:** Academic misconduct (cheating, plagiarism, or any other form) is a very serious offense 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 Section K, Student Misconduct to inform yourself of definitions, processes and penalties.
- b) **Assembly Points:** In case of emergency during class time, be sure to FAMILIARIZE YOURSELF with the information on assembly points which can be found in each classroom and building.
- c) **Student Accommodations:** Students needing an Accommodation because of a Disability or medical condition should contact Student Accessibility Services in accordance with the Procedure for Accommodations for Students with Disabilities available at [http://www.ucalgary.ca/policies/files/policies/procedure-for-accommodations-for-students-with-disabilities\\_0.pdf](http://www.ucalgary.ca/policies/files/policies/procedure-for-accommodations-for-students-with-disabilities_0.pdf). Students needing an Accommodation in relation to their coursework or to fulfil requirements for a graduate degree, based on a Protected Ground other than Disability, should communicate this need, preferably in writing, to the Associate Head of Computer Science.
- d) **Safewalk:** Campus Security will escort individuals day or night (<http://www.ucalgary.ca/security/safewalk/>). Call 403-220-5333 for assistance. Use any campus phone, emergency phone or the yellow phones located at most parking lot pay booths.
- e) **Freedom of Information and Privacy:** This course is conducted in accordance with the Freedom of Information and Protection of Privacy Act (FOIPP). As one consequence, students should identify themselves on all written work by placing their name on the front page and their ID number on each subsequent page. For more information see also <http://www.ucalgary.ca/secretariat/privacy>
- f) **Student Union Information:** VP Academic (403) 220-3911 [suvpaca@ucalgary.ca](mailto:suvpaca@ucalgary.ca) SU Faculty Rep (403) 220-3913 [science1@su.ucalgary.ca](mailto:science1@su.ucalgary.ca), [science2@su.ucalgary.ca](mailto:science2@su.ucalgary.ca) and [science3@su.ucalgary.ca](mailto:science3@su.ucalgary.ca), Student Ombuds Office: (403) 220-6420 [ombuds@ucalgary.ca](mailto:ombuds@ucalgary.ca), <http://ucalgary.ca/provost/students/ombuds>
- g) **Internet and Electronic Device Information:** You can assume that in all classes that you attend your cell phone should be turned off unless instructed otherwise. All communications with other individuals via laptop computers, cell phones or other devices connectable to the internet in not allowed during class time unless specifically permitted by the instructor. If you violate this policy you may be asked to leave the classroom. Repeated abuse may result in a charge of misconduct.
- h) **U.S.R.I.:** At the University of Calgary feedback provided by students through the Universal Student ratings of Instruction (USRI) survey provides valuable information to help with evaluating instruction, enhancing learning and teaching, and selecting courses ([www.ucalgary.ca/usri](http://www.ucalgary.ca/usri)). Your responses make a difference – please participate in USRI surveys.

Department Approval \_\_\_\_\_ Date \_\_\_\_\_

Faculty Approval for  
out of regular class-time activity: \_\_\_\_\_  
Date: \_\_\_\_\_

Faculty Approval for  
Alternate final examination arrangements: \_\_\_\_\_  
Date: \_\_\_\_\_

\*A signed copy of this document is on file in the Computer Science Main Office\*

## **CPSC 522 Syllabus**

### **Tentative Topics Covered:**

- Fundamental techniques for the design and analysis of randomized algorithms
- Applications
- Randomized complexity classes
- Lower bound techniques

**Allowable Sources:**

List any texts, websites, etc that are allowable for use in the course

**Cited Sources:**

What and how should sources be cited.

Examples: Code, design/ideas, etc.

**Level of Collaboration between Students:**

Will students be collaborating on course components, yes or no? To what extent? Can be different for different course components.

How will collaboration with others be cited?

**Disclosure Policy**

If you discuss the assignments with others, make sure to cite these discussions.