



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

1. **Course:** CPSC 233: Introduction to Computer Science for Computer Science Majors II

Lecture Sections:

L01, MWF 10:00-10:50, Nathaly Verwaal, ICT 710, 210-8485, nmverwaa@ucalgary.ca

L02, MWF 11:00-11:50, Nathaly Verwaal, ICT 710, 210-8485, nmverwaa@ucalgary.ca

Office Hours: T 13:00-15:00

Course Website: D2L

Computer Science Department Office, ICT 602, 220-6015, cpsc@cpsc.ucalgary.ca

2. **Prerequisites:** CPSC 231

(<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:

In-Class Exercises	20%
Project	30%
Midterm Exam 1	10%
<i>(In-Class Wednesday February 8th, 2017)</i>	
Midterm Exam 2	15%
<i>(In-Class Friday March 24th, 2017)</i>	
Final Exam	25%

This course **will** have a Registrar's Scheduled Final Exam.

Special Regulations affecting Final grade: Each of the above components will be given a letter grade. The final grade will be calculated weighted by the percentage given above. In order to obtain a final grade of C- or better, 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:**
Java Introduction to Problem Solving 7th Edition, Walter Savitch, Pearson
- Online Course Components:**
Class materials will be posted on D2L. Team and peer evaluations will be completed using IPT Metrics (<http://www.itpmetrics.com/>). Submissions of course work will be via D2L and WebCAT (<http://webcat.cpsc.ucalgary.ca>). D2L and IPMetrics are accessible using your UCIT credentials and WebCAT through your CPSC credentials.
7. **Examination Policy:** Closed book. 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. 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 SU Faculty Rep (403) 220-3913 science1@su.ucalgary.ca, science2@su.ucalgary.ca and science3@su.ucalgary.ca, Student Ombuds Office: (403) 220-6420 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). 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 233 Syllabus

Tentative Topics Covered:

- * Week 1 - Introduction
- * Week 2 - Conditionals in Java
- * Week 3 - Loops in Java
- * Week 4 - Creating class and methods in Java
- * Week 5 - Encapsulation
- * Week 6 - Constructors
- * Week 7 - Class (Static) variables
- * Week 8 - Arrays
- * Week 9 - Inheritance and polymorphism
- * Week 10 - Abstract classes and interfaces
- * Week 11 - Errors and Exceptions
- * Week 12 - File I/O
- * Week 13 - Recursion

Note that components of Unified Modeling Language (UML) and the design and implementation of graphical user interfaces are incorporated each week.

Learning Outcomes:

By the end of the course, students will:

- By the end of this course, students should be able to design and implement a well-structured object-oriented program of moderate complexity that uses all features of the Java programming language.
- By the end of this course, students should be able to analyze the requirements for a small software system, create an object-oriented system design for it, and document the design using the conventions of the Unified Modeling Language (UML).
- By the end of this course, students should be able to explain the concepts of objects, classes, and class relationships as they apply to object-oriented programming.
- By the end of this course, students should be able to design and implement a GUI-based program that does file I/O using standard classes in the Java libraries.

Allowable Sources:

For individual exercises you may use any resources to complete in-class exercises and the project except but you may NOT discuss the exercise with anyone, either on-line or in person, other than the instructors in the course.

For team exercises you may use any resources to complete in-class exercises and the project but you may NOT discuss the exercise with anyone, either on-line or in person, other than your team members and the instructors in the course.

Cited Sources:

If you used an article, book, function or algorithm that you did not create for this course yourself you must cite it. (This means you may have to cite yourself!) You may use any format for your citation as long as the format is consistently used. Include citation in your design document and in the header documentation of computer code you submit. If citing a website, make sure you include the date you accessed the website. Don't forget to cite code that you used, even if you modified the code.

Level of Collaboration between Students:

Only collaborate with your team members when working on team exercises and the project. Do not discuss your work with other students in the course. No collaboration is allowed for individual exercises.

Disclosure Policy

If you do end up discuss in-class exercises and the project with others, make sure to cite these discussion. Lack of citation will be considered academic misconduct.