



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

1. **Course:** CPSC 449, Programming Paradigms -- Fall 2017

Lecture 01: (MWF, 13:00-13:50 in ICT121)

Instructor Name	Email	Phone	Office	Hours
Benjamin Stephenson	ben.stephenson@ucalgary.ca	(403) 220-6781	ICT 704	Tuesdays from 10:00 to noon

Course Site:

D2L: CPSC 449 L01-(Fall 2017)-Programming Paradigms

http://www.cpsc.ucalgary.ca/~bdstephe/449_F17

Department of Computer Science: ICT 602, 403 220-6015, cpsc@cpsc.ucalgary.ca

2. **Prerequisites:**

See section [3.5.C](#) in the Faculty of Science section of the online Calendar.

One of Computer Science 319 or 331, and one of Philosophy 279 or 377.

The prerequisite of Philosophy 279 or 377 is waived for Engineering students in the Software Engineering program. Also known as: (formerly Computer Science 349)

3. **Grading:**

The University policy on grading and related matters is described in [F.1](#) and [F.2](#) of the online University Calendar. In determining the overall grade in the course the following weights will be used:

Component(s)	Weighting %
Assignment 1	10
Assignment 2	10
Assignment 3	10
Midterm Exam	25
Final Exam	45

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 percentages given above and then converted to a final letter grade using the official University grade point equivalents.

In order to obtain a final grade of C- or better in the course, a student must achieve a weighted average of C- (1.7) or better on the midterm and final exams. Students who achieve a higher grade on the final exam than on the midterm exam will have their midterm exam grade replaced with their final exam grade.

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 in [Section 3.6](#). It is the student's responsibility to familiarize himself/herself with these regulations. See also [Section E.3](#) of the University Calendar

5. **Scheduled out-of-class activities:**

The following out of class activities are scheduled for this course:

Out of Class Midterm, scheduled for 90 min on Friday November 3 2017 at 6:00 pm Math Sciences First Floor Labs

6. Course Materials:

Haskell: The Craft of Functional Programming, 3rd Edition by Simon Thompson (Recommended)

Programming in Prolog: Using the ISO Standard, 5th Edition by Clocksin and Mellish (Recommended)

7. Examination Policy:

Both the midterm and final exams will have a brief written section (closed book, no aids allowed) followed by a longer computer-based programming section.

Students should also read the Calendar, [Section G](#), on Examinations.

8. Approved Mandatory and Optional Course Supplemental Fees:

There are no mandatory or optional course supplemental fees for this course

9. Writing across the Curriculum Statement:

See Section E.2 of the University Calendar.

10. Human studies statement:

Students will not participate as subjects or researchers in human studies.

11. OTHER IMPORTANT INFORMATION FOR STUDENTS:

- a. **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 [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](#).
- c. **Academic Accommodation Policy:** 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 [procedure-for-accomodations-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 Undergraduate Affairs of the Department of Computer Science, Nathaly Verwaal by email nmverwaa@ucalgary.ca or phone 403-220-8485.

- d. **Safewalk:** Campus Security will escort individuals day or night (www.ucalgary.ca/security/safewalk/). Call [403-220-5333](tel: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 (FOIPPA). 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 www.ucalgary.ca/legalservices/foip.
- f. **Student Union Information:** [VP Academic](#), Phone: [403-220-3911](tel:403-220-3911) Email: suvcaca@ucalgary.ca. SU Faculty Rep. Phone: [403-220-3913](tel:403-220-3913) Email: sciencerep@su.ucalgary.ca; Student Ombudsman, Email: suvcaca@ucalgary.ca
- 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. Also, communication with other individuals, via laptop computers, Blackberries or other devices connectable to the Internet is not allowed in 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. **Surveys:** At the University of Calgary, feedback through the Universal Student Ratings of Instruction ([USRI](#)) survey and the Faculty of Science Teaching Feedback form provides valuable information to help with evaluating instruction, enhancing learning and teaching, and selecting courses. Your responses make a difference - please participate in these Surveys.
- i. **SU Wellness Center:** The Students Union Wellness Centre provides health and wellness support for students including information and counselling on physical health, mental health and nutrition. For more information, see www.ucalgary.ca/wellnesscentre or call [403-210-9355](tel:403-210-9355).

Department Approval:

Electronically Approved

Date: 2017-09-01 12:28

**Associate Dean's Approval for out
of regular class-time activity:**

Electronically Approved

Date: 2017-09-05 10:42

Course Outcomes

1. This course focuses on languages in the functional and logic paradigms, and compares them to languages that students have likely worked with previously in the imperative and object-oriented paradigms. Language features that might be considered include decision making and control structures, recursion, data types and data structures, creation and evaluation of functions and information hiding.
2. Students shall be able to list the language paradigms covered in the course and describe the features and attributes of each paradigm
3. Students shall be able to compare and contrast the features and attributes of each paradigm.
4. Students shall be able to critique each paradigm for its suitability for solving a given problem.
5. Students shall be able to design, code and debug reasonably advanced programs in the exemplar language for each of the paradigms.