



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

1. **Course:** CPSC 313, Introduction to Computability -- Fall 2017

Lecture 01: (MWF, 11:00-11:50 in ICT121)

Instructor Name	Email	Phone	Office	Hours
Joel Reardon	joel.reardon@ucalgary.ca	(403) 210-6105	ICT 642	Mondays 13:30-14:30 and Wednesday 13:30-14:30

Course Site:

<http://pages.cpsc.ucalgary.ca/~joel.reardon/313/>

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 Mathematics 271 or 273, one of Philosophy 279 or 377, and one of Computer Science 219, 233 or 235.

One of Computer Science 319 or 331 is strongly recommended as preparation for this course.

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 %
Assignments	30
Quizzes	10
Midterm Term	20
Final	40

Each piece of work (reports, assignments, quizzes, midterm exam(s) or final examination) submitted by the student will be assigned a percentage score. The student's average percentage score for the various components listed above will be combined with the indicated weights to produce an overall percentage for the course, which will be used to determine the course letter grade.

The conversion between a percentage grade and letter grade is as follows;

Letter Grade	A+	A	A-	B+	B	B-	C+	C	C-	D+	D
Minimum Percent Required	95	90	85	80	75	70	65	60	55	50	45

Bear in mind that a grade of D+ or below will result if your grade on quizzes is below C-.

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:

Midterm Exam, scheduled for 120 min on Thursday October 26 2017 at 6:00 pm ICT 102

6. Course Materials:

7. Examination Policy:

One double-sided handwritten US-letter-sized page of notes is permitted for both the midterm and the final examination.

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:

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 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 (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 www.ucalgary.ca/legalservices/foip.

f. **Student Union Information:** [VP Academic](#), Phone: [403-220-3911](tel:403-220-3911) Email: suvpaca@ucalgary.ca. SU Faculty Rep. Phone: [403-220-3913](tel:403-220-3913) Email: sciencerep@su.ucalgary.ca; Student Ombudsman, Email: suvpaca@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: 2017-09-11 16:41

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

Electronically Approved

Date: 2017-09-18 08:47

Course Outcomes

1. Explain relationship between languages, which are expressed as sets, problems which are expressed by input and output and decision problems.
2. Design abstract models of sequential computation including finite automata, regular expressions, context-free grammars and Turing machines for a given language definition.
3. Identify language captures by abstract model of sequential computation.
4. Classify a language in a language classification including regular, context-free and recursive.
5. Explain and prove relationship between the language classes.
6. Explain relationship between Turing machines and modern computers.