UNIVERSITY OF CALGARY
FACULTY OF SCIENCE

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

COURSE OUTLINE FOR REMOTE LEARNING

1. **Course:** CPSC 355, Computing Machinery - Spring 2020

   Lecture 01: MW 09:00 - 11:45 - Online

Instructor	Email	Phone	Office	Hours
Dr. Jalal Kawash	jkawash@ucalgary.ca	403 220-6619	ZOOM ROOM: UCALGARY.ZOOM.US/J/293487118	Tuesdays 10:00AM - 11:00AM or by appointment

Remote Learning Supplemental Information:

Some aspects of this course are being offered in real-time via scheduled meeting times. For those aspects you are required to be online at the same time. Please refer to the details below for more complete information.

Remote Learning Details:

Course Site:

D2L: CPSC 355 L01-(Spring 2020)-Computing Machinery

Zoom Room: ucalgary.zoom.us/j/98656404332 (Check your welcome email for the password)

Tophat: CPSC 355 Spring 2020 (Join Code: 983510)

Note: Students must use their U of C account for all course correspondence.

2. **Requisites:**

See section 3.5.C in the Faculty of Science section of the online Calendar.

Prerequisite(s):
One of Computer Science 219, 233, or 235.

Antirequisite(s):
Credit for both Computer Science 355 and Computer Engineering 369 will not be allowed. Also known as: (formerly Computer Science 265)

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 %	Date
In class Tophat quizzes	20	
Assignments	40	
Project	40	

Each piece of work (reports, assignments, quizzes, midterm exam(s) or final examination) submitted by the student will be assigned a grade. The student's grade for each component 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.

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

A student must achieve at least a C- in the **project** component in order to achieve a C- in the course.

4. **Missed Components Of Term Work:**

   The university has suspended the requirement for students to provide evidence for absences. Please do not attend medical clinics for medical notes or Commissioners for Oaths for statutory declarations.

   In the event that a student legitimately fails to submit any online assessment on time (e.g. due to illness etc...), please contact the course coordinator to arrange for a re-adjustment of a submission date. Absences not reported within 48 hours will not be accommodated. If an excused absence is approved, then the percentage weight of the legitimately missed assignment could also be pro-rated among the components of the course.

5. **Scheduled Out-of-Class Activities:**

   There are no scheduled out of class activities for this course.

6. **Course Materials:**

   Required Textbook(s):

   Patterson and Hennessy, *Computer Organization & Design, ARM Edition*: Morgan Kaufmann.
   Kernighan and Ritchie, *The C Programming Language*: Prentice Hal.

7. **Examination Policy:**

   The assignments and project are to be done by individual students: your final submission must be your own original work. Teamwork is not allowed. Any similarities between submissions will be further investigated for academic misconduct. While you are encouraged to discuss the assignment with your colleagues, this must be limited to conceptual and design decisions. Code sharing by any means is prohibited, including *looking* at someone else's paper or screen. Any re-used code of excess of 5 lines in C and 10 lines in assembly (10 assembly language instructions) must be cited and have its source acknowledged. Failure to credit the source will also result in a misconduct investigation.

   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:**

   For all components of the course, in any written work, the quality of the student's writing (language, spelling, grammar, presentation etc.) can be a factor in the evaluation of the work. See also Section E.2 of the University Calendar.

10. **Human Studies Statement:**

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

    See also Section E.5 of the University Calendar.

11. **Reappraisal Of Grades:**

    A student wishing a reappraisal, should first attempt to review the graded work with the Course coordinator/instructor or department offering the course. Students with sufficient academic grounds may request a reappraisal. Non-academic grounds are not relevant for grade reappraisals. Students should be aware that the grade being reappraised may be raised, lowered or remain the same. See Section I.3 of the University Calendar.

    a. **Term Work:** The student should present their rationale as effectively and as fully as possible to the Course coordinator/instructor within **ten business days** of either being notified about the mark, or of the item's return to the class. If the student is not satisfied with the outcome, the student shall submit the Reappraisal of Graded Term work form to the department in which the course is offered within 2 business days of receiving the decision from the instructor. The Department will arrange for a reappraisal of the work within the next ten business days. The reappraisal will only be considered if the student provides a detailed rationale that outlines where and for what reason an error is suspected. See sections I.1 and I.2 of the University Calendar

    b. **Final Exam:** The student shall submit the request to Enrolment Services. See Section I.3 of the University Calendar.

12. **Other Important Information For Students:**

    a. **Mental Health** The University of Calgary recognizes the pivotal role that student mental health plays in physical health, social connectedness and academic success, and aspires to create a caring and supportive campus community where individuals can freely talk about mental health and receive supports when needed. We encourage you to explore the mental health resources available throughout the university

community, such as counselling, self-help resources, peer support or skills-building available through the SU Wellness Centre (Room 370, MacEwan Student Centre, Mental Health Services Website) and the Campus Mental Health Strategy website (Mental Health).

b. **SU Wellness Center:** For more information, see www.ucalgary.ca/wellnesscentre or call 403-210-9355.

c. **Sexual Violence:** The Sexual Violence Support Advocate, Carla Bertsch, can provide confidential support and information regarding sexual violence to all members of the university community. Carla can be reached by email (svsa@ucalgary.ca) or phone at 403-220-2208. The complete University of Calgary policy on sexual violence can be viewed at (https://www.ucalgary.ca/policies/files/policies/sexual-violence-policy.pdf)

d. **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. Examples of academic misconduct may include: submitting or presenting work as if it were the student's own work when it is not; submitting or presenting work in one course which has also been submitted in another course without the instructor's permission; collaborating in whole or in part without prior agreement of the instructor; borrowing experimental values from others without the instructor's approval; falsification/ fabrication of experimental values in a report. **These are only examples**.

e. **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-accommodations-for-students-with-disabilities.pdf.

   Students needing an accommodation in relation to their coursework or to fulfill 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. Religious accommodation requests relating to class, test or exam scheduling or absences must be submitted no later than **14 days** prior to the date in question. See Section E.4 of the University Calendar.

f. **Freedom of Information and Privacy:** This course is conducted in accordance with the Freedom of Information and Protection of Privacy Act (FOIPP). 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 Legal Services website.

g. **Student Union Information:** VP Academic, Phone: 403-220-3911 Email: suvpaca@ucalgary.ca. SU Faculty Rep., Phone: 403-220-3913 Email: sciencerep@su.ucalgary.ca. Student Ombudsman, Email: ombuds@ucalgary.ca.

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. **Copyright of Course Materials:** All course materials (including those posted on the course D2L site, a course website, or used in any teaching activity such as (but not limited to) examinations, quizzes, assignments, laboratory manuals, lecture slides or lecture materials and other course notes) are protected by law. These materials are for the sole use of students registered in this course and must not be redistributed. Sharing these materials with anyone else would be a breach of the terms and conditions governing student access to D2L, as well as a violation of the copyright in these materials, and may be pursued as a case of student academic or non-academic misconduct, in addition to any other remedies available at law.

Course Outcomes:

- By the end of this course, students should be able to describe the architecture of a basic computer.
- By the end of this course, students should be able to explain the architecture of CPUs in common current use, and describe how instructions are executed on such machines.
- By the end of this course, students should be able to design and implement low-level programs of moderate complexity, using all major features and capabilities of assembly language.
- By the end of this course, students should be able to explain the underlying machine representation of common data types such as signed and unsigned integers, characters, strings, and floating-point numbers,

and explain how this data is manipulated when executing arithmetic and bitwise logic instructions.

- By the end of this course, students should be able to take high-level language constructs such as loops, if-constructs and functions, and translate them into an equivalent assembly language implementation using various branch instructions.
- By the end of this course, students should be able to design and implement assembly language programs that access different kinds of memory, including implementing local variables and arrays in registers and stack memory, and global variables in data and text sections.
- By the end of this course, students should be able to design and implement assembly language programs that do basic system I/O.
- By the end of this course, students should be able to create a program that consists of separately compiled source code modules that mix C code and assembly language code in order to optimize program execution.
- By the end of this course, students should be able to analyze and debug assembly language programs using gdb.
- By the end of this course, students should be able to explain the relationship between machine instructions, assembly language instructions, and high-level language constructs.

Electronically Approved - Apr 27 2020 16:48

Department Approval

Electronically Approved - Apr 27 2020 20:05

Associate Dean's Approval for arrangements for remote learning and alternate final examination