COURSE OUTLINE

1. **Course**: CPSC 313, Introduction to Computability - Winter 2021

   Lecture 01: MWF 12:00 - 12:50 - Online

<table>
<thead>
<tr>
<th>Instructor</th>
<th>Email</th>
<th>Phone</th>
<th>Office</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dr Wayne Eberly</td>
<td><a href="mailto:eberly@ucalgary.ca">eberly@ucalgary.ca</a></td>
<td>403 220-5073</td>
<td>ICT 613</td>
<td>MW 1:00-2:00pm</td>
</tr>
</tbody>
</table>

**Online Delivery Details:**

This course is being offered online in real-time via scheduled meeting times, you are required to be online at the same time.

To help ensure Zoom sessions are private, do not share the Zoom link or password with others, or on any social media platforms. Zoom links and passwords are only intended for students registered in the course. Zoom recordings and materials presented in Zoom, including any teaching materials, must not be shared, distributed or published without the instructor’s permission.

Students will be required to attend Zoom meetings at scheduled lecture and tutorial times.

**Course Site:**

D2L: CPSC 313 L01-(Winter 2021)-Introduction to Computability

**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):**
Mathematics 271 or 273; and Philosophy 279 or 377; and 3 units from Computer Science 219, 233 or 235.

**Antirequisite(s):**
Credit for Computer Science 313 and Computer Science 351 will not be allowed.

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:

<table>
<thead>
<tr>
<th>Component(s)</th>
<th>Weighting %</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Assignment 1</td>
<td>10%</td>
<td>February 12</td>
</tr>
<tr>
<td>Assignment 2</td>
<td>10%</td>
<td>March 12</td>
</tr>
<tr>
<td>Assignment 3</td>
<td>10%</td>
<td>April 9</td>
</tr>
<tr>
<td>Term Test 1</td>
<td>15%</td>
<td>Start Time: 6am, Friday, February 26</td>
</tr>
<tr>
<td></td>
<td></td>
<td>End Time: 6am, Saturday, February 27</td>
</tr>
<tr>
<td>Term Test 2</td>
<td>15%</td>
<td>Start Time: 6am, Friday, March 19</td>
</tr>
<tr>
<td></td>
<td></td>
<td>End Time: 6am, Saturday, March 20</td>
</tr>
<tr>
<td>Final Examination</td>
<td>40%</td>
<td>To be completed in a 24-hour interval</td>
</tr>
<tr>
<td></td>
<td></td>
<td>during the examination period</td>
</tr>
</tbody>
</table>

   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.

<table>
<thead>
<tr>
<th></th>
<th>A+</th>
<th>A</th>
<th>A-</th>
<th>B+</th>
<th>B</th>
<th>B-</th>
<th>C+</th>
<th>C</th>
<th>C-</th>
<th>D+</th>
<th>D</th>
</tr>
</thead>
<tbody>
<tr>
<td>Minimum % Required</td>
<td>95%</td>
<td>90%</td>
<td>85%</td>
<td>80%</td>
<td>75%</td>
<td>70%</td>
<td>66%</td>
<td>62%</td>
<td>58%</td>
<td>54%</td>
<td>50%</td>
</tr>
</tbody>
</table>
A numerical percentage grade will be calculated for each assignment and test. These will be used, along with the weightings shown above, to compute an overall percentage grade for the course. This will be rounded up to obtain an integer between 0 and 100. The letter-grade conversion table on this outline will then be obtained to obtain a letter grade for the course.

This course will have a final exam that will be scheduled by the Registrar. The Final Examination Schedule will be published by the Registrar’s Office approximately one month after the start of the term. The final exam for this course will be designed to be completed within 2 hours.

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, or the course instructor if this course does not have a 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:

On-line slides and pre-recorded videos will be available on the course’s D2L site.

In order to successfully engage in their learning experiences at the University of Calgary, students taking online, remote and blended courses are required to have reliable access to the following technology:

- A computer with a supported operating system, as well as the latest security, and malware updates;
- A current and updated web browser;
- Webcam/Camera (built-in or external);
- Microphone and speaker (built-in or external), or headset with microphone;
- Current antivirus and/or firewall software enabled;
- Stable internet connection.

For more information please refer to the UofC ELearning online website.

7. Examination Policy:

Students may access the course web site and their notes when writing tests in this course. Any other online material that is accessed and used must be cited.

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](https://www.ucalgary.ca/wellnesscentre) and the Campus Mental Health Strategy website ([Mental Health](https://www.ucalgary.ca/wellnesscentre)).

   b. **SU Wellness Services:** For more information, see [www.ucalgary.ca/wellnesscentre](https://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](mailto: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](https://www.ucalgary.ca/policies/files/policies/sexual-violence-policy.pdf).

   d. **Misconduct:** Academic integrity is the foundation of the development and acquisition of knowledge and is based on values of honesty, trust, responsibility, and respect. We expect members of our community to act with integrity. Research integrity, ethics, and principles of conduct are key to academic integrity. Members of our campus community are required to abide by our institutional [Code of Conduct](https://www.ucalgary.ca/policies/files/policies/code-conduct.pdf) and promote academic integrity in upholding the University of Calgary’s reputation of excellence. Some examples of academic misconduct include but are not limited to: posting course material to online platforms or file sharing without the course instructor’s consent; submitting or presenting work as if it were the student’s own work; submitting or presenting work in one course which has also been submitted in another course without the instructor’s permission; borrowing experimental values from others without the instructor’s approval; falsification/fabrication of experimental values in a report. Please read the following to inform yourself more on academic integrity:

      - [Student Handbook on Academic Integrity](https://www.ucalgary.ca/policies/files/policies/student-handbook.pdf)
      - [Research Integrity Policy](https://www.ucalgary.ca/policies/files/policies/research-integrity-policy.pdf)

   Additional information is available on the [Student Success Centre Academic Integrity](https://www.ucalgary.ca/policies/files/policies/student-handbook.pdf) page.

   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](https://www.ucalgary.ca/policies/files/policies/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 the Department of Computer Science, Nelson Wong by email nelson@cpsc.ucalgary.ca or phone 403-210-8483. 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](https://www.ucalgary.ca/policies/files/policies/legal-services.pdf) website.

   g. **Student Union Information:** [VP Academic](mailto:vpacademic@ucalgary.ca), Phone: **403-220-3911** Email: [svpaca@ucalgary.ca](mailto:svpaca@ucalgary.ca). [SU Faculty Rep.](mailto:suacademicrep@ucalgary.ca) Phone: **403-220-3913** Email: [sciencerep@su.ucalgary.ca](mailto:sciencerep@su.ucalgary.ca). [Student Ombudsman](mailto:ombuds@ucalgary.ca), Email: [ombuds@ucalgary.ca](mailto: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:**

- Explain relationship between languages, which are expressed as sets, problems which are expressed by input and output and decision problems.
- Design and analyze abstract models of sequential computation including finite automata, regular expressions, context-free grammars and Turing machines for a given language definition.
- Design: You will follow a design process to develop various kinds of simple machines - or expressions - that can be used to solve various computational problems.
- Analysis: You will used mathematical tools to prove that your solutions for problems are correct.
- Classify a computable problem as regular, context-free or recursive.
- Proving Impossibility: On the other hand, you will also learn about and apply methods to prove that various problems cannot be solved by various kinds of simple machines.
- Relating Theory to Practice: You will see at least a little bit about how the simple machines, introduced in this course, have been used to design (and use) software tools.