REVISED COURSE OUTLINE FOR REMOTE LEARNING

To account for the necessary transition to remote learning from March 13 onward, adjustments have been made to assessment deadlines and requirements so that all coursework tasks are in line with the necessary and evolving health precautions for all involved (students and staff). If you are unable to meet the deadlines or requirements specified, please connect with your course instructor to work out alternative dates/assessments.

1. **Course:** CPSC 441, Computer Networks - Winter 2020

   Lecture 01: MWF 12:00 - 12:50 - Remote Learning (check with your instructor or coordinator for details)

<table>
<thead>
<tr>
<th>Instructor</th>
<th>Email</th>
<th>Phone</th>
<th>Office</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dr Carey Williamson</td>
<td><a href="mailto:carey@cpsc.ucalgary.ca">carey@cpsc.ucalgary.ca</a></td>
<td>220-6780</td>
<td>ICT 736</td>
<td>Monday 1:00pm-3:00pm</td>
</tr>
</tbody>
</table>

**Course Site:**

D2L: CPSC 441 L01-(Winter 2020)-Computer Networks

**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 319 or 331 and one of Computer Science 325, 359, or Computer Engineering 369.

   **Antirequisite(s):**
   Credit for both Computer Science 441 and Electrical Engineering 573 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>
</tr>
</thead>
<tbody>
<tr>
<td>Assignments (4)</td>
<td>50%</td>
</tr>
<tr>
<td>Midterm (in class on Wednesday, March 4)</td>
<td>20%</td>
</tr>
<tr>
<td>Final Assessment (midterm exam score OR extra assignment OR email take-home exam OR D2L multiple-choice exam; each student chooses by April 15; due by 5:30pm on April 24)</td>
<td>30%</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>Minimum % Required</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>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>
<td>50%</td>
</tr>
</tbody>
</table>

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

   The University has suspended requirements for students to provide evidence for reasons for absences so please do not attend medical clinics for medical notes or Commissioners for Oaths for statutory declarations. Please let your instructor know immediately if you are ill and cannot meet the deadlines specified.
5. **Scheduled Out-of-Class Activities:**
   There are no scheduled out of class activities for this course.

6. **Course Materials:**
   Required Textbook(s):
   

7. **Examination Policy:**
   No aids are allowed on tests or examinations, other than a simple hand-held calculator.
   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:** 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.
    c. **Sexual Violence:** The University of Calgary is committed to fostering a safe, productive learning environment. The Sexual Violence Policy ([https://www.ucalgary.ca/policies/files/policies/sexual-violence-policy.pdf](https://www.ucalgary.ca/policies/files/policies/sexual-violence-policy.pdf)) is a fundamental element in creating and sustaining a safer campus environment for all community members. We understand that sexual violence can undermine students' academic success and we encourage students who have experienced some form of sexual misconduct to talk to someone about their experience, so they can get the support they need. The Sexual Violence Support Advocate, Carla
Course Outcomes:

- Explain what a network protocol is, list several Internet protocols, and explain for what purpose they are used.
- Describe the layered architecture of the Internet protocol stack, and discuss the functionality of each layer.
- Explain the functionality and operation of specific network protocols such as HTTP, FTP, SMTP, DNS, TCP, UDP, and BGP.
- Understand how application-layer messages are carried in the Internet by describing the encapsulation/decapsulation process, store-and-forward mechanism, routing, and addressing.
- Analyze a simple computer network consisting of multiple routers and links to compute performance metrics such as throughput and end-to-end delay.
- Develop client-server network programs that communicate with each other over the Internet using TCP and/or UDP.
- Compare and contrast TCP and UDP, and explain how reliability and congestion control are implemented in TCP.
- Explain how IP addresses are obtained and assigned to end systems, and discuss the operation of DHCP and NAT and how they relate to IPv4 and IPv6.
- Describe what a MAC protocol is and compare different types of MAC protocols in wired and wireless networks, including ALOHA and CSMA.
- Understand the past, present, and potential future impacts of Internet technology on our networked society.

Electronically Approved - Mar 18 2020 12:57

Department Approval

Electronically Approved - Mar 18 2020 13:46

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