1. **Course:** CPSC 527: Computer Viruses and Malware
   CPSC 627: Computer Viruses and Malware

   **Lecture Sections:**
   L01, TR 9:30-10:45, MS 319, John Aycock, ICT 650, 210-9409, aycock@ucalgary.ca
   Office Hours: Drop In or by Appointment

   **Course Website:** http://www.cpsc.ucalgary.ca/~aycock/527
   http://www.cpsc.ucalgary.ca/~aycock/627

   **Computer Science Department Office, ICT 602, 220-6015, cpsc@cpsc.ucalgary.ca**

2. **Prerequisites:**
   - CPSC 527: CPSC 313 and 457 and Consent of the Department
   - CPSC 627: Consent of the Department

   (http://www.ucalgary.ca/pubs/calendar/current/computer-science.html#3620)

3. **Grading:** The University policy on grading and related matters is described in sections 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>Course</th>
<th>Assignments</th>
<th>Take Home Midterm</th>
<th>Take Home Final Exam</th>
</tr>
</thead>
<tbody>
<tr>
<td>CPSC 527</td>
<td>50%</td>
<td>20%</td>
<td>30%</td>
</tr>
<tr>
<td>CPSC 627</td>
<td>50%</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

   This course will not have a Registrar's Scheduled Final Exam.

   Special Regulations affecting the Final Grade: Each of the above components will be given a percentage grade. The final grade will be calculated using these percentage grades weighted by the percentages given above and then converted to a final letter grade. To achieve a final grade of C- or better in the course, you must achieve 50% or better on the overall assignment mark and 50% or better on the overall exam mark (final and midterm combined).

   Students will be required to sign a legal form in order to take this course. Strict lab protocols will be enforced: failure to adhere to these protocols will result in an automatic “F” grade in the course.

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. Section 3.6. It is the student's responsibility to familiarize themselves with these regulations. See also Section E.6 of the University calendar.

5. **Scheduled Out-of-Class Activities:** Regularly scheduled classes have precedence over any out-of-class-time activity. If you have a clash with this out-of-class activity, please inform your instructor as soon as possible so that alternative assignments can be arranged.

6. **Course Materials:** None.

   **Online Course Components:** None.

7. **Examination Policy:** Both exams for CPSC 527 are take home exams. Students should also read the Calendar, Section G, on examinations.
8. **Approved Mandatory and Optional Course Supplemental Fees:** None.

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 be expected to participate as subjects or participants in projects. See also Section E.5 of the University Calendar.

11. **OTHER IMPORTANT INFORMATION FOR STUDENTS:**

   a) **Misconduct:** Academic misconduct (cheating, plagiarism, or any other form) is a very serious offense 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 which can be found in each classroom and building.

   c) **Student Accommodations:** 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 [http://www.ucalgary.ca/policies/files/policies/procedure-for-accommodations-for-students-with-disabilities_0.pdf](http://www.ucalgary.ca/policies/files/policies/procedure-for-accommodations-for-students-with-disabilities_0.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 Computer Science. Dr. Ben Stephenson, by email bdstephe@ucalgary.ca or phone 403-220-6781.

   d) **Safewalk:** Campus Security will escort individuals day or night ([http://www.ucalgary.ca/security/safewalk/](http://www.ucalgary.ca/security/safewalk/)). Call 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 [http://www.ucalgary.ca/secretariat/privacy](http://www.ucalgary.ca/secretariat/privacy)

   f) **Student Union Information:** VP Academic (403) 220-3911 suvpaca@ucalgary.ca SU Faculty Rep (403) 220-3913 science1@su.ucalgary.ca, science2@su.ucalgary.ca and science3@su.ucalgary.ca, Student Ombuds Office: (403) 220-6420 ombuds@ucalgary.ca, [http://ucalgary.ca/provost/students/ombuds](http://ucalgary.ca/provost/students/ombuds)

   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. All communications with other individuals via laptop computers, cell phones or other devices connectable to the internet in not allowed during 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) **U.S.R.I.:** At the University of Calgary feedback provided by students through the Universal Student ratings of Instruction (USRI) survey provides valuable information to help with evaluating instruction, enhancing learning and teaching, and selecting courses ([www.ucalgary.ca/usri](http://www.ucalgary.ca/usri)). Your responses make a difference – please participate in USRI surveys.

Department Approval__________________________________________Date__________________________

Associate Dean’s Approval for
Alternate final examination arrangements:__________________________Date:___________________________

*A signed copy of this document is kept on file in the Computer Science Main Office ICT 602*
### CPSC 527/627 Percentage to Letter Grade Conversion Table

Grade conversion from percentages to letter grades. Rounding will be performed if necessary using the usual method. The square brackets and parentheses are used in their mathematical sense, meaning that square brackets are *inclusive* and parentheses are *exclusive*. For example, a grade of 93.75 is an A, not an A-. An A+ in the overall course will be awarded at the instructor's discretion for outstanding performance in all components of the course.

<table>
<thead>
<tr>
<th>Percentage Range</th>
<th>Letter Grade</th>
</tr>
</thead>
<tbody>
<tr>
<td>[93.75, 100)</td>
<td>A</td>
</tr>
<tr>
<td>[87.5, 93.75)</td>
<td>A-</td>
</tr>
<tr>
<td>[81.25, 87.5)</td>
<td>B+</td>
</tr>
<tr>
<td>[75, 81.25)</td>
<td>B</td>
</tr>
<tr>
<td>[68.75, 75)</td>
<td>B-</td>
</tr>
<tr>
<td>[62.5, 68.75]</td>
<td>C+</td>
</tr>
<tr>
<td>[56.25, 62.5)</td>
<td>C</td>
</tr>
<tr>
<td>(50, 56.25)</td>
<td>C-</td>
</tr>
<tr>
<td>[43.75, 50)</td>
<td>D+</td>
</tr>
<tr>
<td>[37.5, 43.75)</td>
<td>D</td>
</tr>
<tr>
<td>(0, 37.5)</td>
<td>F</td>
</tr>
</tbody>
</table>
CPSC 527/627 Syllabus

Tentative Topics Covered:

- Introduction
- Basic definitions
- Ethics and malware
- Law and malware
- Weaknesses exploited
- Viruses
- Anti-virus techniques
- Worms
- Malware-related people and communities
- “Applications”