1 Course Staff

Instructors
Nomair Naeem  nanaeem@uwaterloo.ca
Victoria Sakhnini  vsakhnini@uwaterloo.ca
ISA
Jeremy Luo  cs241@uwaterloo.ca
IA
Murray Dunne  mdunne@uwaterloo.ca
Senior ISA
Sylvie Davies  cs241@uwaterloo.ca
Instructional Support Coordinator
Gang Lu  glu@uwaterloo.ca

2 Course Description

This course presents the relationship between high-level languages and the computer architecture that underlies their implementation, including basic machine architecture, assemblers, specification and translation of programming languages, linkers and loaders, block-structured languages, parameter passing mechanisms, and comparison of programming languages.

Prerequisites: (CS 138 or 246) or (a grade of 85% or higher in one of CS 136 or 146); Computer Science and BMath (Data Science) students only. Antirequisites: CS 230, ECE 351.

Course Web Site: http://www.student.cs.uwaterloo.ca/~cs241 lists the course syllabus, assignment specifications and resource material.
2.1 Course Objectives

At the end of the course, students should be able to

- Write short machine- and assembly-language programs to perform simple data manipulation
- Write a basic assembler supporting labels
- Give formal specifications for regular languages, including regular expressions and bubble diagrams
- Write a scanner capable of dealing with a typical high-level programming language (given the specification)
- Give a grammar for a context-free language and, given a grammar, produce a derivation for a given string in the language
- Write a parser for an LR(1) language given a low-level representation of the LR-parsing automaton (e.g., as derived from an automatic parser generator)
- Write a simple code generator for an imperative language, i.e., one doing little or no optimization
- Apply appropriate design decisions when programming in C/C++ based on a detailed understanding of the way memory is used by a running C/C++ program

Note: When writing programs, students must be able to design, code, debug, test, and successfully run the programs.

2.2 Special Note on online teaching

Since the course is being offered online, there will be no lectures. Instead, course content will be made available in text format along with supplemental videos for illustrating specific topics, as needed. The course material will be made available well ahead of assignment deadlines so that students can organize their term to fit their needs.

<table>
<thead>
<tr>
<th>Module</th>
<th>Topics</th>
<th>Practiced In</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Number Representations</td>
<td>Assignment 1</td>
</tr>
<tr>
<td>2</td>
<td>Machine Language</td>
<td>Assignment 1</td>
</tr>
<tr>
<td>2</td>
<td>Assembly Language</td>
<td>Assignment 2</td>
</tr>
<tr>
<td>2</td>
<td>Assemblers</td>
<td>Assignment 3</td>
</tr>
<tr>
<td>3</td>
<td>Regular Languages</td>
<td>Assignment 4</td>
</tr>
<tr>
<td>3</td>
<td>Scanning</td>
<td>Assignment 5</td>
</tr>
<tr>
<td>4</td>
<td>Context-free Grammars</td>
<td>Assignment 5 &amp; 6</td>
</tr>
<tr>
<td>5</td>
<td>Top Down Parsing</td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>Bottom Up Parsing</td>
<td>Assignment 6</td>
</tr>
<tr>
<td>7</td>
<td>Context-Sensitive Analysis</td>
<td>Assignment 7</td>
</tr>
<tr>
<td>8</td>
<td>Code Generation</td>
<td>Assignment 8 &amp; 9</td>
</tr>
<tr>
<td>9</td>
<td>Compiler Optimizations</td>
<td>Assignment 9</td>
</tr>
<tr>
<td>10</td>
<td>Memory Management</td>
<td>Assignment 10</td>
</tr>
<tr>
<td>11</td>
<td>Linking and Loading</td>
<td>Assignment 10</td>
</tr>
</tbody>
</table>
# 3 Printable Schedule

<table>
<thead>
<tr>
<th>Week</th>
<th>Dates</th>
<th>Reading</th>
<th>Reading Quiz (RQ)</th>
<th>Concept Quiz (CQ)</th>
<th>Assignment</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Sept 8th - 10th</td>
<td>Module 1</td>
<td></td>
<td></td>
<td>Assignment 1</td>
</tr>
<tr>
<td>2</td>
<td>Sept 13th - 17th</td>
<td>Module 2</td>
<td>RQ Module 1: Mon, Sept 13th, 5pm</td>
<td>CQ Module 1: Wed, Sept 15th, 5pm</td>
<td>Assignment 2</td>
</tr>
<tr>
<td>3</td>
<td>Sept 20th - 24th</td>
<td>Module 2</td>
<td></td>
<td></td>
<td>Assignment 3</td>
</tr>
<tr>
<td>4</td>
<td>Sept 27th - Oct 1st</td>
<td>Module 3</td>
<td>RQ Module 2: Mon, Sept 27th, 5pm</td>
<td>CQ Module 2: Wed, Sept 29th, 5pm</td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>Oct 4th - 8th</td>
<td>Module 4</td>
<td>RQ Module 3: Mon, Oct 4th, 5pm</td>
<td>CQ Module 3: Wed, Oct 6th, 5pm</td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>Oct 18th - 22nd</td>
<td>Module 5</td>
<td>RQ Module 4: Mon, Oct 18th, 5pm</td>
<td>CQ Module 4: Wed, Oct 20th, 5pm</td>
<td>Assignment 4</td>
</tr>
<tr>
<td>7</td>
<td>Oct 25th - 29th</td>
<td>Module 6</td>
<td>RQ Module 5: Mon, Oct 25th, 5pm</td>
<td>CQ Module 5: Wed, Oct 27th, 5pm</td>
<td>Assignment 5</td>
</tr>
<tr>
<td>8</td>
<td>Nov 1st - 5th</td>
<td>Module 6</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>9</td>
<td>Nov 8th - 12th</td>
<td>Module 7</td>
<td>RQ Module 6: Mon, Nov 8th, 5pm</td>
<td>CQ Module 6: Wed, Nov 10th, 5pm</td>
<td>Assignment 6</td>
</tr>
<tr>
<td>10</td>
<td>Nov 15th - 19th</td>
<td>Module 8: Part 1</td>
<td>RQ Module 7: Mon, Nov 15th, 5pm</td>
<td>CQ Module 7: Wed, Nov 17th, 5pm</td>
<td>Assignment 7</td>
</tr>
<tr>
<td>11</td>
<td>Nov 22nd - 26th</td>
<td>Module 8: Part 2</td>
<td>RQ Module 8: Part 1: Mon, Nov 22nd, 5pm</td>
<td>CQ Module 8: Part 1: Wed, Nov 24th, 5pm</td>
<td>Assignment 8</td>
</tr>
<tr>
<td>12</td>
<td>Nov 29th - Dec 3rd</td>
<td>Module 9</td>
<td>RQ Module 8 Part 2 and Module 9: Mon, Nov 29th, 5pm</td>
<td>CQ Module 8 Part 2 and Module 9: Wed, Dec 1st, 5pm</td>
<td></td>
</tr>
<tr>
<td>13</td>
<td>Dec 6th - Dec 7th</td>
<td>Module 9</td>
<td>RQ Module 10 and 11: Mon, Dec 6th, 5pm</td>
<td>CQ Module 10 and 11: Tues, Dec 7th, 11:59pm</td>
<td>Assignment 9</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Reading Week</th>
</tr>
</thead>
<tbody>
<tr>
<td>6</td>
</tr>
<tr>
<td>7</td>
</tr>
<tr>
<td>8</td>
</tr>
<tr>
<td>9</td>
</tr>
<tr>
<td>10</td>
</tr>
<tr>
<td>11</td>
</tr>
<tr>
<td>12</td>
</tr>
<tr>
<td>13</td>
</tr>
</tbody>
</table>

**Exam Period:** Dec 8th - Dec 23rd

Assignment 10 Fri. Dec 17th 11:59pm*

*Typically, no assignments can be due beyond the last day of classes. The Math faculty has allowed one assessment during the final exam period. Therefore, we have replaced the standard final exam with assignment 10.
4 Tutorials

New this term (Fall 2021) are synchronous online tutorials scheduled for 2:30 to 3:50 on Tuesdays. These will be held online via Teams. We will attempt to record and share the recordings on the course notes page. We do not expect to use all the reserved time. In fact, we will likely never go beyond 330 unless a useful discussion is ongoing. Attendance to tutorials is optional though if attendance goes below some low number (say 10 students) the course staff might cancel tutorials completely. The tutorials are meant to cover course content and not assignments. Assignment-specific questions should be asked during one-on-one office hours with any of the course staff.

Since this is the first time we are offering online tutorials for CS241, we are not completely sure how they will go. As an initial plan, each week we will cover the past reading quiz questions and then look over the busiest/popular questions/comments for the past reading assignment. If needed, the presenter might also present some new examples/walk-throughs.

5 Office Hours

All office hours will be held remotely using MS Teams. At the start of the term, make sure that you can connect to Teams. Contact CSCF if you encounter issues. Office hour appointments will be booked online. Visit the following website to get details: Office Hours Page

6 Evaluation Structure and what to expect

The course grade will be based off 10 Readings (each worth 1%), 10 Concept Quizzes (each worth 1%) and 10 assignments (each worth 8%).

\[
\text{Grade} = (\text{Reading Mark\%} \times 10\%) + (\text{Concept Quiz Mark\%} \times 10\%) + (\text{Assignment Mark\%} \times 80\%)
\]

6.1 Assigned Readings: Perusall and Reading Quizzes

In this course, the content is taught through course notes available as PDF documents. While there are supplementary videos, these are optional and are only meant to clarify concepts from the notes. It is therefore important that you spend time actively reading and digesting the course material in the notes.

We are hosting the course notes on a platform called Perusall, a “social e-reader” that allows the whole class to read the notes collaboratively. Perusall allows students to highlight sections of the notes and leave comments or ask questions directly on the notes. Other students see these annotations and can read them or respond to them, and small discussion threads emerge on parts of the notes that students find confusing or interesting. We piloted Perusall last term (Spring 2021) and students liked the ability to ask questions and get answers directly within the course notes, as opposed to waiting for office hours or posting a screenshot of the notes on Piazza. We will still use Piazza for non-course-notes related questions.

To gain access, go to the CS241 Learn account, click on the module named “Perusall” and then click through to be taken to the CS241 Perusall account.

To ensure that students keep up with the assigned readings, we have allotted 10% of the overall grade to these readings. This 10% is split across 10 readings, each worth 1%. The 1% mark for each reading is split into two components, Effort and Understanding, each worth 0.5%.
Our crude measure of Effort is the amount of time you spend on the reading. Perusall keeps track of your reading time, so you must read the notes on Perusall to get the Effort marks. With the release of each reading, we will announce a “minimum” and “recommended” time to spend on the reading. These figures are based on how much time the reading material typically takes up in a traditional lecture-based format, and how much time past students spent on the readings on average. If you reach or exceed the “minimum” time, you will get full marks for the Effort component. There is no bonus for reaching the “recommended” time; it is simply to give an idea of how much time we expect students to spend on the reading.

The Understanding component is primarily based on completing a Reading Quiz, a short timed quiz with simple multiple-choice questions similar to the “Clicker Questions” you may have been asked during in-person lectures. The Reading Quizzes will be released on Learn at the same time as the relevant reading, and are due the same time as the reading (typically one or two weeks after release). You can do the quiz any time before the deadline, but once you start the quiz, you must complete it within 30 minutes. You are expected to complete the quiz on your own with no external help. The questions are meant to test your recall of the reading you just finished, and each should only take a few minutes to answer. You should not need to consult the course notes. Your score on the quiz will not be revealed until after the deadline for the reading.

If you lose marks on the Reading Quiz, it may be possible to regain the lost Understanding marks by contributing to Perusall in a useful way. Our metric for “useful contribution” is not yet determined, and we will likely adjust it throughout the term based on our observations and student feedback. The goal of the metric is to reward asking questions and posting comments that are helpful to other students, while discouraging gaming the system or spamming to get marks. Perusall has a proprietary algorithm for evaluating the “quality” of questions and comments, and it seems rather picky about what counts as “high quality”. Our metric for “useful contribution” will not be purely based on this algorithm, but will likely incorporate it as a sort of “filter” to determine who is making helpful comments and who is not. Thus, posting low effort comments like “I agree!” is unlikely to help you regain any lost marks. Try to ask thoughtful questions that others will find useful, or post informative answers to existing questions. Do not repost or quote questions from the reading quiz on Perusall. If you do this, you will get a score of zero on the relevant reading. Even if you make slight changes to the wording or numbers in the questions, this is still not allowed. However, you are encouraged to ask for clarification about the concepts behind the reading quiz questions, as long as you do not refer to the quiz or give away quiz content.

6.2 Concept Quizzes

Concept Quizzes are meant to test your understanding of the readings in more depth compared to Reading Quizzes. There will be 10 Concept Quizzes, each worth 1%. Concept Quizzes are also administered through Learn. Typically Concept Quizzes are released after the relevant reading is due (Mondays at 5 PM) and must be completed by Wednesday at 5 PM, giving you around two days to do the quiz. (The final Concept Quiz is an exception; it is due on the last day of classes, which is a Tuesday.)

While the Concept Quizzes are more difficult than the Reading Quizzes, they do not have a time limit. You can start the quiz at any time within the two day period, as long as you submit the quiz before the Wednesday 5 PM deadline. You are free to close the quiz and come back to it later if you want to take a break (Learn will save your position). The quizzes are expected to take around 1 to 2 hours, but may take longer depending on how well you have learned the material. You are expected to do the quiz by yourself, but you can consult the course notes, course videos, and other official resources like the course website and Piazza while doing the quiz.
After the quiz deadline passes, you will be able to see the correct answers, as well as explanations for the answers, by viewing your quiz attempt on Learn.

6.3 Assignments

There will be 10 assignments. For most students, the course material can only be learned well by carefully working through each assignment. Real-time feedback on the correctness of your work is provided by the Marmoset submission and testing server, https://marmoset.student.cs.uwaterloo.ca. All assignments must be submitted electronically to Marmoset and results are normally quickly available.

We recommend that you start working on the assignments early. Use Marmoset to assess your progress (and grade) after convincing yourself of correctness using your own self-designed tests. By the time you submit to Marmoset, you should be convinced by your own thorough testing that your program is perfect. (Hint: the test suites and automated testing that you were introduced to in CS 246 would also work very well in CS 241. Consider using them here.) A link to the Marmoset system and instructions for using it may also be found on the course web page.

Most programming questions on assignments can be done in C++/Racket. However, occasionally there might be questions that restrict you to use only C++.

6.3.1 Assignment Slip Days/Extensions

Each student will have the ability to use up to three 24 hour extensions for assignments (not quizzes). These extensions are meant to handle emergencies close to assignment deadlines or short illnesses. Budget them carefully; do not waste them. If you end up using up all your assignment extensions, you will NOT be granted any additional extensions.

If you are using assignment extensions, you must use a whole number of them on an assignment (Example: you cannot use 1.5 assignment extensions, you must use 2 if you are 36-hours late).

Assignment extensions can be used all together on one assignment, or split across different assignments.

Extensions can be used after the assignment deadline, and will apply retroactively. However, they must be used within 72 hours of the original assignment deadline.

You do not need a reason to use assignment extensions, you may use them as you please.

You cannot use an assignment extension on Assignment 10 (due during Exam period). This is to ensure that course staff has appropriate time to compile the course grades and submit them to the Registrar’s Office.

Once you have made an extension request, you cannot take it back.

Details on how to request an extension will be posted on Piazza.

6.3.2 Missed Assessments

You must notify the instructor of any severe, long-lasting problem that prevents you from completing an assessment. There will be no deferred, makeup or extra credit for a missed assessment. Under extenuating circumstances, that are pre-approved within a week of the missed assessment, the instructor may assign
a higher weight to later assessments. To be considered for this option, any rule instituted by the Math Faculty regarding the Verification of Illness, will be applicable. The notification of an illness is not a guarantee that an accommodation will be made. If a student requests an exemption from more than two assignments, they will either receive a DNW or INC depending on their performance in the rest of the course.

6.3.3 Remark Request for Assessments

Requests for regrades for hand-marked assignments will be accepted up to five (5) days after students have the opportunity to view their assessment. Details of how to request a regrade will be posted in Piazza.

6.3.4 Hand-Marking

From time to time, we may choose to hand-mark an assignment question, in addition to the regular marking performed by Marmoset. The purpose of hand-marking is to review your submission and help you write better code. Although we may assign a few marks to hand-marking, its real purpose is to give you specific ways to help you improve the quality of your code. To encourage you to always write good code, we will not announce ahead of time which assignments will be hand-marked.

6.4 Submitting Assignments: Marmoset

Use Marmoset to submit and test your CS241 assignments.

a. If your submitted program does not compile or run successfully on its own, your submission will receive a result of “did not compile” and the detailed test results will contain something similar to the error message you get if you ran your program yourself. In this case, your submission will not be tested with any of the tests.

b. If your submitted program runs successfully on its own, it will be tested with all of the public tests.

c. If your submission fails any public test, the detailed test results will display an error message for that public test. In this case, you will not be able to release test your submission until your submission passes the public test.

d. If it passes all of the public tests, you will have the option to see information for the release tests. If you do so, you will use up one of your “release tokens” for that question. Normally, for every assignment question, you will be initially given 3 release tokens. If you use up one or more of them, one release token will regenerate once every 12 hours, until you have 3 release tokens again. Start your work early if you want to have more chances to see the results of the release tests. If the deadline will expire before your token regenerates, you can still submit, though you will not be able to tell how your submission did on the tests.

e. Marmoset automatically tests each submission with all of the release tests, in some order specified by the course staff. If your submission fails a release test and you use a token to see the results, you will only see that test and one more test in the detailed test results. If your submission passes all the release tests, you will not see any release tests in the detailed test results, but you will be credited with full marks for that question.

f. If you fail a release test, the information we are willing to give you for that test will be displayed by Marmoset. You will not be given additional details. Some tests are blind, i.e., no additional information is provided. Again, do not ask about or speculate about the test cases on Piazza. The correct action when failing a release test is to re-examine your own test suite and redesign it to find the error in your code or your assumptions.
g. You can continue to submit and see the result of release tests after the deadline has passed. It’s a good idea to finish questions on which you ran out of time, to make sure that you’ve done all the learning.

h. Release tokens are provided as a courtesy to supplement your own testing. They are not something to which you are entitled. Release tokens can go away at any time, either as a result of Marmoset malfunctioning, or deliberately (for example, in response to widespread abuse). Loss of release tokens will not be considered grounds for assignment due date extensions.

i. Some questions might have secret tests. Secret test details (whether your submission passed or failed the test) will only become visible a few days after the assignment deadline (this process is manually activated by the course staff).

6.4.1 Marmoset downtime

If Marmoset fails to accept submissions for more than two of the six hours immediately prior to the deadline, or is down at the deadline, a 12-hour extension will be granted. For an extension to be granted, Marmoset must fail to accept submissions; failure or delay in displaying results is not grounds for extension. It is bad practice, and risky, to rely on Marmoset as your primary means of testing. The failure must be due to a problem with Marmoset or a widespread network failure. Your home connection is your own responsibility.

7 Discussion Forum

CS 241 will be using Piazza to make announcements and answer questions about course material and the assignments. You are expected to check the forum regularly, at least once per day. Important course information will appear in pinned posts. Any information that appears in a pinned post is considered to be disseminated and we will assume that you have read it.

7.1 Rules for using Piazza

a. When asking about a particular problem on an assignment, make sure to use the appropriate folder based on the assignment number.

b. Before posting a question, read all relevant existing posts. Your question might already have been answered.

c. You may post private questions which are only visible to instructors. Note that students can show up anonymous to other students but not to instructors.

d. Do not post any questions asking for hints or help with failing Marmoset release test cases. In order to pass these test cases you should be rereading the assignment question, consulting the reference material and creating your own test cases. The instructors and staff for CS241 will never give any hints for Marmoset release test cases, and students are strictly forbidden from doing so as well.

8 Group Work and Collaboration

Students are required to know what constitutes academic integrity. For details, see University of Waterloo’s Office of Academic Integrity website. The three most common academic offenses that CS241 students in previous terms have committed are as follows.
1. **Excessive collaboration:** Using a classmate’s assignment as the basis or as a reference for your own or allowing someone else to do this with your assignment.

2. **Use of another student’s previous assignment, test, solution:** You may not work off of, or refer to in any way, a copy of an assignment a student submitted in a previous term.

3. **Submission of another student’s assignment to Marmoset:** It is a good practice to simply not share your computer with other students in the class. If you must do so, you must be extremely careful to protect your work so that you avoid anyone submitting your work and conversely, you avoid submitting someone else’s work to Marmoset. By submitting to Marmoset, you are stating that the submission is your own work.

All assignments in CS241 are to be done individually. You are welcome to discuss general ideas regarding assignments with other students in the class, but no code-level sharing is permitted. You may not view someone else’s code, nor share your code with someone else, either in person or via electronic communication. When code is shared, both parties have committed an academic offence.

Marmoset tokens cannot be shared; it is an offence to “borrow” someone else’s Marmoset account for the purpose of using extra release tokens for testing, or for any other purpose.

You cannot submit a program that simply prints or returns values in order to match expected test results rather than making an actual, reasonable attempt to solve the problem as required in the assignment question specification.

If you have taken this course before, it is okay to base this term’s assignments on your past assignments but you must continue to develop and refine your solution; i.e. you cannot simply submit a copy of the old assignment. We want to see that you are still spending time and effort to improve your work. It is an offence to submit for credit anything that has previously been submitted for credit in the same or any other course, unless permission is explicitly granted to do so.

Each assignment is worth a significant portion of your final grade, the penalty for an offence under Policy 71 is a grade of 0 on the assignment questions and an additional 5% deduction from your course grade. Additionally, be aware that if you are caught cheating on an assignment, any code from that assignment cannot be used on subsequent assignments.

### 8.1 Use of MOSS

MOSS (Measure of Software Similarities) is used in CS241 as a mean of comparing students’ assignments in order to support academic integrity.

### 9 Other Policies

#### 9.1 Intellectual Property

Students should be aware that this course contains the intellectual property of their instructor, TA, and the University of Waterloo. Intellectual property includes items such as:

- Lecture content, spoken and written (and any audio/video recording thereof);

- Lecture handouts, presentations, and other materials prepared for the course (e.g., PowerPoint slides, PDF documents);
Questions or solution sets from various types of assessments (e.g., assignments, quizzes, tests, final exams); and

Work protected by copyright (e.g., any work authored by the instructor or TA or used by the instructor or TA with permission of the copyright owner).

Course materials and the intellectual property contained therein, are used to enhance a student’s educational experience. However, sharing this intellectual property without the intellectual property owner’s permission is a violation of intellectual property rights. For this reason, it is necessary to ask the instructor, TA and/or the University of Waterloo for permission before uploading and sharing the intellectual property of others online (e.g., to an online repository).

Please alert the instructor if you become aware of intellectual property belonging to others (past or present) circulating, either through the student body or online. The intellectual property rights owner deserves to know (and may have already given their consent).

9.2 Mental Health Support

The Faculty of Math encourages students to seek out mental health support if needed.

On-campus Resources:

- Campus Wellness https://uwaterloo.ca/campus-wellness/
- Counselling Services: counselling.services@uwaterloo.ca/ 519-888-4567 ext 32655
- MATES: one-to-one peer support program offered by Federation of Students (FEDS) and Counselling Services: mates@uwaterloo.ca
- Health Services: located across the creek from the Student Life Centre, 519-888-4096.

Off-campus Resources:

- Good2Talk (24/7): Free confidential help line for post-secondary students. Phone: 1-866-925-5454
- Here 24/7: Mental Health and Crisis Service Team. Phone: 1-844-437-3247
- OK2BME: set of support services for lesbian, gay, bisexual, transgender or questioning teens in Waterloo. Phone: 519-884-0000 extension 213
- If you or anyone you know experiences any academic stress, difficult life events, or feelings like anxiety or depression, we strongly encourage you to seek support.

9.3 Diversity

It is our intent that students from all diverse backgrounds and perspectives be well served by this course, and that students’ learning needs be addressed both in and out of class. We recognize the immense value of the diversity in identities, perspectives, and contributions that students bring, and the benefit it has on our educational environment. Your suggestions are encouraged and appreciated. Please let us know ways to improve the effectiveness of the course for you personally or for other students or student groups. In particular:

- We will gladly honour your request to address you by an alternate/preferred name or gender pronoun. Please advise us of this preference early in the semester so we may make appropriate changes to our records.
• We will honour your religious holidays and celebrations. Please inform us these at the start of the course.

• We will follow AccessAbility Services guidelines and protocols on how to best support students with different learning needs.

10 University-wide Policies

Academic integrity: In order to maintain a culture of academic integrity, members of the University of Waterloo community are expected to promote honesty, trust, fairness, respect and responsibility. [Check the Office of Academic Integrity for more information.]

Grievance: A student who believes that a decision affecting some aspect of his/her university life has been unfair or unreasonable may have grounds for initiating a grievance. Read Policy 70, Student Petitions and Grievances, Section 4. When in doubt, please be certain to contact the department’s administrative assistant who will provide further assistance.

Discipline: A student is expected to know what constitutes academic integrity to avoid committing an academic offence, and to take responsibility for his/her actions. [Check the Office of Academic Integrity for more information.] A student who is unsure whether an action constitutes an offence, or who needs help in learning how to avoid offences (e.g., plagiarism, cheating) or about “rules” for group work/collaboration should seek guidance from the course instructor, academic advisor, or the undergraduate associate dean. For information on categories of offences and types of penalties, students should refer to Policy 71, Student Discipline. For typical penalties, check Guidelines for the Assessment of Penalties.

Appeals: A decision made or penalty imposed under Policy 70, Student Petitions and Grievances (other than a petition) or Policy 71, Student Discipline may be appealed if there is a ground. A student who believes he/she has a ground for an appeal should refer to Policy 72, Student Appeals.

Note for students with specific learning needs: AccessAbility Services, located in Needles Hall, Room 1401, collaborates with all academic departments to arrange appropriate accommodations for students with disabilities without compromising the academic integrity of the curriculum. If you require academic accommodations to lessen the impact of your disability, please register with AccessAbility Services at the beginning of each academic term.