This outline is a preliminary version and may change. The final version will be posted at the start of classes.

People

<table>
<thead>
<tr>
<th>Instructor</th>
<th>M. Jason Hinek  (contact info)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Teaching Assistants</td>
<td>Alexander, Tri, Davoud, Ryan, and Xueli (full into on cuLearn)</td>
</tr>
<tr>
<td>Office hours</td>
<td>See course webpage (tba)</td>
</tr>
</tbody>
</table>

Course Information

<table>
<thead>
<tr>
<th>Classroom</th>
<th>Azrieli Theatre; Room AT 201</th>
</tr>
</thead>
<tbody>
<tr>
<td>Class Times</td>
<td>Days: Tuesday and Thursday  Time: 6:05pm - 8:55pm</td>
</tr>
<tr>
<td>Tutorial (Lab) Room</td>
<td>Herzberg Building; HP 4155</td>
</tr>
<tr>
<td>Tutorial Times</td>
<td>6:05pm – 8:00pm (Consult your schedule for day).</td>
</tr>
<tr>
<td>cuLearn</td>
<td><a href="https://www.carleton.ca/culearn/">https://www.carleton.ca/culearn/</a></td>
</tr>
</tbody>
</table>

Calendar Description

A second course in programming emphasizing problem solving and computational thinking in an object-oriented language. Topics include abstraction, mutable data structures, methods, inheritance, polymorphism, recursion, program efficiency, testing and debugging.

Prerequisites: One of COMP1405/1005, ECOR1606, or SYSC1005.

★ Note: COMP1006/1406 is a prerequisite for each of COMP2401, COMP2402, COMP2404 and COMP2406. However, there is a further condition that you must receive at least a C- in COMP1006/1406 in order to proceed to any these courses. Please see the 2017-18 Undergraduate Calendar for more information about prerequisites. ([https://calendar.carleton.ca/undergrad/](https://calendar.carleton.ca/undergrad/))

Topics

Topics will include all of
- Abstraction
- Mutable data structures
- Methods (functions)
- Object Oriented Programming (OOP)
  - Inheritance
  - Polymorphism
- Recursion (recursive functions and recursive data types)
- Program efficiency
- Testing
- Debugging
- Source Control Tools

Java will be used for the entire semester.
Evaluation

<table>
<thead>
<tr>
<th></th>
<th>Assignments</th>
<th>22%</th>
<th>6–7 assignments</th>
<th>[0-22]</th>
</tr>
</thead>
<tbody>
<tr>
<td>T</td>
<td>Tutorials</td>
<td>8%</td>
<td>4 tutorials (starting the week of July 10)</td>
<td>[0-8]</td>
</tr>
<tr>
<td>Q</td>
<td>Quizzes</td>
<td>5%</td>
<td>6 pop quizzes (one each week)</td>
<td>[0-5]</td>
</tr>
<tr>
<td>P</td>
<td>Group Project</td>
<td>10%</td>
<td>Due the last week of class</td>
<td>[0-10]</td>
</tr>
<tr>
<td>M</td>
<td>Midterm Exams</td>
<td>20%</td>
<td>July 20 &amp; August 3 (in class)</td>
<td>[0-20]</td>
</tr>
<tr>
<td>F</td>
<td>Final Exam</td>
<td>35%</td>
<td>Determined by the Registrars Office</td>
<td>[0-35]</td>
</tr>
</tbody>
</table>

**Note:** You must pass the weighted average of your midterms (M) and final exam (F) in order to pass the course. Your final grade will be determined using the following:

\[
\text{if } (M+F \geq 55/2) \text{ then } \\
\text{final grade is } A+T+Q+P+M+F \\
\text{otherwise } \\
\text{final grade is } \min(\text{floor}((M+F)/55*100), \text{floor}(A+T+Q+P+M+F))
\]

**Tutorials**
There are four tutorials. Your grade for each tutorial will be based on attendance and progress on tutorial material. For a given tutorial, you will not receive full marks if you are not present for most of the tutorial or if you are not working on the tutorial material.

**Quizzes**
There will be six pop quizzes during the semester. One in each week of the semester (starting with the first week and ending the penultimate week).

**Project**
You will work in a team of 4–5 people for the project. You will present your project (demonstrate your program and answer questions) in the last week of classes. (August 14, 15, or 16)

**Assignments**
There will be four or five main assignments and two midterm assignments in this course. Due dates will be specified for each assignment. **No lates will be accepted.**

<table>
<thead>
<tr>
<th>Assignment</th>
<th>Percentage</th>
<th>Due Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Assignment 0</td>
<td>0%</td>
<td>due Monday, July 10</td>
</tr>
<tr>
<td>Assignment 1</td>
<td>5%</td>
<td>due Monday, July 17</td>
</tr>
<tr>
<td>Assignment 2</td>
<td>1%</td>
<td>due Thursday, July 20 (at the start of class)</td>
</tr>
<tr>
<td>Midterm 1</td>
<td>10%</td>
<td>Thursday, July 20 in class</td>
</tr>
<tr>
<td>Assignment 3</td>
<td>5%</td>
<td>due Monday, July 24</td>
</tr>
<tr>
<td>Assignment 4</td>
<td>5%</td>
<td>due Monday, July 31</td>
</tr>
<tr>
<td>Assignment 5</td>
<td>1%</td>
<td>due Thursday, August 3 (at the start of class)</td>
</tr>
<tr>
<td>Midterm 2</td>
<td>10%</td>
<td>Thursday, July 20 in class</td>
</tr>
<tr>
<td>Project</td>
<td>10%</td>
<td>Presented Aug 14,15 or 16</td>
</tr>
</tbody>
</table>

**Appeals:** For assignments, you must contact the TA that marked your assignment within one week from the date that the assignments are returned to you (on GitHub). To appeal a grade, you must complete the assignment rubric yourself (with justification for the problems you are contesting) and send/bring it to the TA with your appeal.

For midterm appeals, you must fill out a form (that details your appeal), attach it to your midterm and return it to the instructor no later than one week from the date the exams are returned to the class.
Resources

There will be no required textbook for this course. However, there are several supplementary resources available to you.

- Previous offerings of COMP1406/1006 have used these extensive course notes. Some chapters may be assigned as mandatory readings.

- Oracle has a good introductory tutorial for many aspects of Java.
  - http://docs.oracle.com/javase/tutorial/

Any mandatory (assigned) readings will be freely available on the Internet.

Important Dates

See the University Calendar for all important dates:
http://calendar.carleton.ca/undergrad/undergraduniversity/academicyear/

- **July 4** Classes begin
- **July 5** Office hours (Github/Java) in tutorial room (6-9pm)
- **July 7** Office hours (Github) in tutorial room (6-9pm)
- **July 10** Monday’s tutorial section starts
- **July 12** Wednesday’s tutorial section starts
- **August 7** Civic holiday, University closed. Tutorials canceled this week. Wednesday’s tutorial is office hours.
- **August 15** Last class (most likely used for Project demonstrations)
Collaboration Policy

You may collaborate at the conceptual/problem-solving level for assignments but you must write your own solutions. Plagiarism detection software will be used to test your code.

Tutorials and the project are meant to be done collaboratively. Each member must contribute to receive grades.

Undergraduate Academic Advisor

The Undergraduate Advisor for the School of Computer Science is available in Room 5302C HP, by telephone at 520-2600, ext. 4364 or by email at undergraduate_advisor@scss.carleton.ca.

The undergraduate advisor can assist with information about prerequisites and preclusions, course substitutions/equivalencies, understanding your academic audit and the remaining requirements for graduation. The undergraduate advisor will also refer students to appropriate resources such as the Science Student Success Centre, Learning Support Services and the Writing Tutorial Services.

University Policies

Full academic regulations are found in the University’s calendar (link). Some excerpts are below.

Academic Integrity

Every student should be familiar with the Carleton University student academic integrity policy. A student found in violation of academic integrity standards may be awarded penalties which range from a reprimand to receiving a grade of F in the course or even being expelled from the program or University. Some examples of offences are: plagiarism and unauthorized co-operation or collaboration. Information on this policy may be found in the Undergraduate Calendar.

Plagiarism is presenting, whether intentional or not, the ideas, expression of ideas or work of others as one’s own. Plagiarism includes reproducing or paraphrasing portions of someone else’s published or unpublished material, regardless of the source, and presenting these as one’s own without proper citation or reference to the original source.

In cases where an investigation determines that a violation of the Academic Integrity Policy has occurred, sanctions may be applied by the Faculty Dean, the Provost and Vice President (Academic), or by Senate Executive.

Sanctions may include but are not limited to completion of a remediation process, a written reprimand, assignment of a failing grade, withdrawal from a course, suspension from a program, suspension or expulsion from the university.

Students with Disabilities

The Paul Menton Centre for Students with Disabilities (PMC) provides services to students with Learning Disabilities (LD), psychiatric/mental health disabilities, Attention Deficit Hyperactivity Disorder (ADHD), Autism Spectrum Disorders (ASD), chronic medical conditions, and impairments in mobility, hearing, and vision.

If you have a disability requiring academic accommodations in this course, please contact PMC at 613-520-6608 or pmc@carleton.ca for a formal evaluation. If you are already registered with the PMC, contact your PMC coordinator to send me your Letter of Accommodation at the beginning of the term, and no later than
two weeks before the first in-class scheduled test or exam requiring accommodation (if applicable). After requesting accommodation from PMC, meet with me to ensure accommodation arrangements are made. Please consult the PMC website for the deadline to request accommodations for the formally-scheduled exam (if applicable) at http://www2.carleton.ca/pmc/new-and-current-students/dates-and-deadlines/

Religious Obligations
Carleton University accommodates students who, due to religious obligation, must miss an examination, test, assignment deadline, laboratory, or other compulsory event. The University has a Senate-approved policy on religious accommodation that forms part of its Human Rights Policy, available at: http://www2.carleton.ca/equity/

Accommodation will be worked out directly and on an individual basis between the student and the instructor(s) involved. Students should make a formal written request to the instructor(s) for alternative dates and/or means of satisfying requirements. Such requests should be made during the first two weeks of any given academic term, or as soon as possible after a need for accommodation is known to exist, but in no case later than the penultimate week of classes in that term.

Pregnancy Obligation
Write to me with any requests for academic accommodation during the first two weeks of class, or as soon as possible after the need for accommodation is known to exist. For more details visit the Equity Services website: http://www2.carleton.ca/equity/

Medical Certificate
The following is a link to the official medical certificate accepted by Carleton University for the deferral of final examinations or assignments in undergraduate courses. To access the form, please go to http://www.carleton.ca/registrar/forms/