Course Outline

COMP 1006/1406 for Summer 2022
Introduction To Computer Science II

Course Information
Instructor: Ahmad Traboulsi
Contact: ahmadtraboulse@cunet.carleton.ca
Classroom: Refer to public schedule
Lectures: Tuesdays & Thursdays
Tutorials: Wednesdays

Lab Coordinator: Lars Doyle LarseDoyle@cunet.carleton.ca

Teaching Assistants
A list of teaching assistants and their contact/office hours information will be posted once the course starts.

Course 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.

Lectures: 2.84 hours twice a week (TR).
06:05 pm – 8:55 pm

Prerequisites
One of COMP 1405, COMP 1005, ECOR 1606, SYSC 1005, BIT 1400.
<table>
<thead>
<tr>
<th>Week</th>
<th>Dates</th>
<th>Topics</th>
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| 1    | July 5 & July 7 | • OOP, Code structures in Java, control flow statements, java language basics  
       |               | • Java Arrays, Abstraction,                                            |
| 2    | July 12 & July 14 | • OOP, state and behavior, Objects, anatomy of a class, constructors, signature and overloading, class attributes and methods, encapsulation, method chaining, Java Packages, Access Modifiers, OOP-Inheritance, single inheritance, multiple inheritance, method overriding |
| 3    | July 19 & July 21 | • Polymorphism, class inheritance, abstract methods, abstract classes, overriding and hiding, interfaces, access modifiers  
       |               | • Testing, bugs, blackbox testing, whitebox testing                  |
| 4    | July 26 & July 28 | • Abstract Data Types, primitive and reference data types, data structures, abstract data structures. Linked-Lists, Stacks, Sets, Dictionaries, Lists, Queues, Deques, Doubly-Lined List  
       |               | • Recursion and Recursive Data types                                 |
|     | Aug. 2 & Aug. 4 | • Recursion  
|     |               | • Efficiency  
|     |               | • BST  
| 6   | Aug. 9 & Aug. 11 | • Exception Handling, Generics  
|     |               | • Recursive Sorting, BST  
| 7   | Aug. 16       | • Review  
| TBD |               | FINAL EXAM  

**Textbooks and Other Resources**

http://people.scs.carleton.ca/~lanthier/teaching/COMP1406/notes.html

**Assessment Scheme**

<table>
<thead>
<tr>
<th>Component</th>
<th>Weight</th>
<th>Due Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>5 Assignments</td>
<td>50%</td>
<td>TBD</td>
</tr>
<tr>
<td>6 Tutorials</td>
<td>12%</td>
<td>Weekly</td>
</tr>
<tr>
<td>2 Quizzes (In-class)</td>
<td>18%</td>
<td>TBD</td>
</tr>
<tr>
<td>Final Exam</td>
<td>20%</td>
<td>TBD</td>
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</tbody>
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For any discrepancies or questions, first contact the TA that marked your assignment.

For the assignments please submit the .java files
Instructor Office Hours:
Office hours: By Appointment only

Teaching Assistants office Hours:
TBA

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@scs.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 Writing Tutorial Services.

SCS Computer Laboratory

SCS students can access one of the designated labs for your course. The lab schedule can be found at: https://carleton.ca/scs/tech-support/computer-laboratories/. All SCS computer lab and technical support information can be found at: https://carleton.ca/scs/technical-support/. Technical support is available in room HP5161 Monday to Friday from 9:00 until 17:00 or by emailing support@scs.carleton.ca.
University Policies

For information about Carleton's academic year, including registration and withdrawal dates, see Carleton's Academic Calendar.

Pregnancy Obligation. Please contact your instructor 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 Equity Services.

Religious Obligation. Please contact your instructor 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 Equity Services.

Academic Accommodations for Students with Disabilities If you have a documented disability requiring academic accommodations in this course, please contact the Paul Menton Centre for Students with Disabilities (PMC) at 613-520-6608 or pmc@carleton.ca for a formal
evaluation or contact your PMC coordinator to send your instructor your Letter of Accommodation at the beginning of the term. You must also contact the PMC 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 your instructor as soon as possible to ensure accommodation arrangements are made. For more details, visit the Paul Menton Centre website.

**Survivors of Sexual Violence.** As a community, Carleton University is committed to maintaining a positive learning, working and living environment where sexual violence will not be tolerated, and survivors are supported through academic accommodations as per Carleton's Sexual Violence Policy. For more information about the services available at the university and to obtain information about sexual violence and/or support, visit: https://carleton.ca/sexual-violence-support/

**Accommodation for Student Activities.** Carleton University recognizes the substantial benefits, both to the individual student and for the university, that result from a student participating in activities beyond the classroom experience. Reasonable accommodation must be provided to students who compete or perform at the national or international level. Please contact your instructor 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, see the policy.

**Student Academic Integrity Policy.** 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. Examples of punishable offences include: plagiarism and unauthorized co-operation or collaboration. Information on this policy may be found here.

**Plagiarism.** As defined by Senate, "plagiarism is presenting, whether intentional or not, the ideas, expression of ideas or work of others as one's own". Such reported offences will be reviewed by the office of the Dean of Science.

**Unauthorized Co-operation or Collaboration.** Senate policy states that "to ensure fairness and equity in assessment of term work, students shall not co-operate or collaborate in the completion of an academic assignment, in whole or in part, when the instructor has indicated that the assignment is to be completed on an individual basis". Please refer to the course outline statement or the instructor concerning this issue.