

CSE 1030 3.0: Introduction to Computer Science II Summer 2012

Description

This course continues the separation of concern theme introduced in CSE1020. While CSE1020 focuses on the client concern, this course focuses on the concern of the implementer. Hence, rather than using an API (Application Programming Interface) to build an application, the student is asked to implement a given API. Topics include implementing classes (utilities/non-utilities, delegation within the class definition, documentation and API generation, and implementing contracts), aggregations (implementing aggregates versus compositions and implementing collections), inheritance hierarchies (attribute visibility, overriding methods, abstract classes versus interfaces, inner classes); generics; building graphical user interfaces with an emphasis on the MVC (Model-View-Controller) design pattern; recursion; searching and sorting (including quick and merge sorts); linked lists; and stacks and queues. The coverage also includes a few design patterns. Three lecture hours and weekly laboratory sessions.

Instructor

- Michael Jenkin (jenkin@cse.yorku.ca)
- Office hours: Tuesdays 5-6pm in Sherman 1028
- In order to ensure timely responses to emails, please include CSE1030 in the email subject line and include your CSE account number and student number in the body of the email. Emails lacking such information are unlikely to receive timely or useful responses.

Moodle

- Students are expected to monitor the course moodle page. All critical messages will be posted here. Grades will be distributed to students via moodle's 'grade' feature. It is your responsibility to verify grades as they are posted.

Lecture Times

- Tuesdays and Thursdays 7:30pm-9:00pm in SC 302

Laboratory Times

- Tuesdays 6-7:30pm in LAS 1002/1006
- Labs take place in Lassonde (previously Computer Science and Engineering) 1006 and 1002. These rooms are adjacent to each other on the ground floor of Lassonde. There is no lab the first week of term, rather labs in CSE 1030 start on May 15th.

Textbook

- The required textbook for this course is "Absolute Java, 5th Edition" by Walter Savitch. The textbook is available at the textbook store. It is also available online from a number of different vendors including amazon.ca. You will require a copy of this edition of the text.

Tentative Course Outline

- Week 1 May 8 and 10. Chapter 5. Static methods
 - There is no lab this week
- Week 2 May 15 and 17. Chapter 4. Non-static features
- Week 3 May 22 and 24. Chapters 4 and 5. Mixed features
 - Lab 1 due at the end of the lab
- Week 4 May 29 and 31. Chapters 4 and 5. Aggregation I
- Week 5 June 5 and 7. Chapter 6. Aggregation II
 - Lab 2 due at the end of the lab
- Week 6 June 12 and 14. Chapter 7, 8.1 and Chapter 9. Inheritance I
 - Labtest #1 will be held in-lab on June 12th
- Week 7 June 19 and 21. Chapter 8.2 and 13.1 Inheritance II
 - Midterm will be held in-class on June 19th
- Week 8 June 26 and 28. GUI. Chapter 17 and 13.2
 - Lab 3 due at the end of the lab
- Week 9. July 10 and 12. Chapter 11. Recursion I
- Week 10. July 17 and 19. Chapter 12.2 Recursion II
- Week 11. July 24 and 26. Chapter 14.1 and 15.1. Linked Lists. Inner classes.
 - Lab 4 due at the end of the lab
- Week 12. July 31 and August 2. Chapter 15.2 and 15.3. Advanced topics. Review.
 - Labtest #2 will be held in-lab on July 31st

Grading

- Midterm. Held in-class on June 19th 20%
- Labtest #1. Held in-lab on June 12th. 20%
- Labtest #2 Held in-lab on July 31st. 19%
- Final. Held in the exam period, to be scheduled by registrar. 21%
- Labs. 4 graded labs @ 5% each. 20%