COMP-202
Unit 0: Course Details

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Focus of the Course

• Introduction to computer programming
  – Basics of problem solving
  – Essentials of program design and implementation
• Coursework will be done in a programming language called Java
  – Concepts taught in the course apply to other programming languages as well
• Aimed at students with little or no background in programming and/or knowledge of computer science

Prerequisites

• Prerequisite: A CEGEP-level math course or equivalent
• For those who graduated from high school outside Quebec and thus never attended CEGEP: any upper-level math course
• In any case, the ability to think logically and rigorously is more important than calculus, algebra or trigonometry
Non-Focus of the Course

• This course is not about:
  – How to use, set-up, or configure a computer
  – How to surf the Web or send e-mail
  – How to chat with friends using the Internet
  – How / where to download music and movies from the Internet
  – How to write essays with a word processor
  – How to make presentations with presentation software
  – How to design Web pages
  – How to repair your computer if it breaks down

• Instruction will be provided on how to use the software packages necessary to complete coursework

Course Outline (1)

• Week 1: Introduction
• Weeks 2 - 7: Basics of programming
  – Week 2: Variables, simple calculations, basic input and output
  – Week 3: Branching structures
  – Week 4: Loops
  – Week 5: Methods / functions / procedures
  – Week 6: Arrays
  – Week 7: Records / structures
• Week 8: Midterm review
• Weeks 9 - 10: Object-oriented programming
  – Week 9: Using objects

Course Outline (2)

  – Week 10: Defining your own classes of objects
• Week 11 - 12: Advanced topics
  – Week 11: File input / output
  – Week 12: Recursion
• Week 13: Final exam review

Placement Quiz

• If you think you are overqualified for COMP-202, take the placement quiz
• If your total for the 4 questions is 9 or above, attempt the programming problem and submit your solution (along with the rest of the questionnaire) to your instructor
• Your instructor will tell you whether you should be in COMP-202 or COMP-250 (the next course)
Textbook

- Additional information (authors, publishers, year of publication, ISBN) is on the course outline
- Available from McGill bookstore
- Other reference: Sun Microsystems' Java Tutorial
  - http://java.sun.com/docs/books/tutorial/

Course Structure

- Lectures
  - 3 hours per week, every week, "mandatory"
  - All material taught in lectures is examinable unless otherwise stated
- Tutorials
  - 2 hours, take place every week except the first week, optional
  - Different material covered each week
  - Several sessions of each, offered at different times; go at most convenient time for you
  - Tutorials start next week; details to be announced
- TA office hours
  - Approximately 1 TA office hour per week per 20 students
  - TA office hours start next week; details to be announced

Tutorials

- Purpose:
  - To enable you to familiarize yourself with software needed to complete coursework
  - To reinforce material taught in lectures through examples and hands-on exercises
- Given by TAs
- Take place in a computer lab
- Smaller groups, therefore more individualized attention

Tutorial Topics

- Tutorial T1:
  - SOCS accounts, login / logout
  - GNU/Linux desktop environment
  - myCourses
  - RText / JDK
- Tutorials T2 - T7: Basics of programming
- Tutorials T8 - T9: Object-oriented programming
- Tutorial T10: Advanced topics
- Tutorials M and F: Preparation for the midterm and final examination, respectively
Grading Scheme

• 5 assignments: 30%
  – Assignments 1 through 4 have the same weight (5%)
  – Assignments 5 is worth more (10%)
  – All assignments count toward your final grade
  – One of the best ways to learn the material
  – Lateness penalty (5% per day or fraction of day, up to two days)
  – MUST be done INDIVIDUALLY

• 1 midterm examination: 20%
  – To be held outside lecture hours; closed-book, written

• 1 final examination: 50%
  – Held during final exam session; closed-book, written

Plagiarism: Policy

• Assignments MUST be done INDIVIDUALLY
  – Do NOT work in groups
  – Do NOT copy work someone else did
  – Do NOT allow anyone to copy your work / give a copy of your work to anyone

• Assignments MUST be ENTIRELY YOUR OWN WORK
  – Do NOT submit code / programs you did not write yourself

• Countermeasures
  – Random verifications by TAs during grading
  – Use of software similarity detection tools to compare assignment submissions
  – Students might be asked to explain their code to instructors at any time

SOCS Computer Labs

• If you are officially registered in the course, you can create an account to use the computers on the 3rd floor of Trottier building

• Computer availability:
  – Computers in open areas: physically accessible 24 hours a day, 7 days a week
  – Computers in side rooms: physically accessible on weekdays 10:00 - 20:00, weekends 12:00 - 20:00

• Consultant on duty: weekdays 10:00 - 20:00, weekends 12:00 - 20:00

• Computers run GNU/Linux (Unix-like OS), not MS Windows
  – Unix tutorials are offered by SOCS Systems staff

Trottier Building

• Building opening hours
  – Monday - Friday, 7:00 - 21:00

• Outside opening hours, use your McGill ID card to unlock the door
  – If your McGill ID card cannot unlock the door, and you are officially registered in the course, send e-mail to help@cs.mcgill.ca and ask to be added on the building access list
Required Software

- You are encouraged to use your personal computer or laptop to complete course work
- Software used in this course
  - Required: Java Development Kit (JDK)
  - Optional: RText, Eclipse (later in the course)
- See course outline for details on how to obtain the above software packages
- All programs you submit for assignments must compile and run using JDK 6.0 or later
  - JDK is backward compatible; programs that compile and run under previous versions also compile and run under JDK 6.0

Course Communication

- Course home page:
  - Select appropriate semester
  - Instructor coordinates, course outline, TA contact information and office hours schedule, tutorial schedule, lecture notes, assignment specifications, and other course material
- myCourses (WebCT Vista):
  - http://www.mcgill.ca/mycourses
  - Discussions, announcements, assignment submission and grading, marks
  - You are responsible for making sure that your marks are correct, and reporting errors to your instructor

Useful Tips

- Do read everything carefully: slides, notes, textbooks, instructions, assignment specifications, documentation, announcements on myCourses, ...
- Do not wait until the last minute to do your assignments
- Do not fall behind; each new concept builds on previous ones
- Contact instructors / TAs if you have difficulties
- Do not expect to be given every single detail; you will have to look things up in the provided material and deduce some things on your own
- Experiment
- Practice makes perfect!