

CSI1102: Introduction to Software Design

Class 0: Overview & Admin



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Professor's details (Section C)

- Dr. Diana Inkpen
- Office: Room A611 - CBY Building
- URL: <http://www.site.uottawa.ca/~diana>
- Email: diana@site.uottawa.ca
- Phone: 562 5800 x6711
- Answering your questions:
 - Office hours: TBA, or by e-mail appointment
 - FAQ: Posted at <http://www.site.uottawa.ca/~diana/csi1102/index.html>
 - Email: Within 2 working days



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CSI1102: Formal Course Description

This course introduces students to the fundamentals of software design. We will introduce the concepts of

- software design and pseudo-code; object-oriented programming; and
 - abstraction principles including virtual machines, information hiding and encapsulation;
 - simple data structures, including linked lists, stacks and queues, and their applications;
 - the iterative and recursive processing of data structures.
- Lab work will be done in the **Java programming language**.

Prerequisite: GNG1101 or CSI1100

3 hours of lecture per week, 3 hours of lab per week, 4 credits

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CSI1102: Focus on Object-Oriented Software Development

- problem solving
- program design, implementation, and testing
- object-oriented concepts
 - classes
 - objects
 - interfaces
 - inheritance
 - polymorphism
- Using the Java programming language

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CSI1102: Course description

- What?
 - Good software design principles
 - Problem solving skills
- Why?
 - High quality software design → good programming principles → high quality code
- How?
 - Theory → Practice (In Java)



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Why is this course useful to you?

(Answer in class by students)

- For employment. It sounds good on the CV that you are a good software designer and Java programmer.
- To know both hardware and software and be able to interface them.
- For use in future courses, such as Data Structures, ELG project courses, etc.
- If this is your last programming course, make the most out of it !

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CSI1102: Prescribed Book

- Java Software Solutions, Third Edition
J. Lewis and W. Loftus
Addison Wesley, 2003
- ISBN 0-201-78129-8
- Website: www.aw.com/cssupport
- We will follow the book quite closely → get one!



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CSI1102: Evaluation/Mark allocation

- The final mark will be calculated as follows.

4 Lab assignments	4 x 5 points = 20 points
4 Quizzes	4 x 0.5 points = 2 points
1 Midterm	20 points
Final examination	58 points
Total	100 points

- You should obtain at least 50% for the final examination in order to pass this course.

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CSI1102: Theory course outline

See course webpage for details.

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About the TAs

- All TAs are available for any lab question from any student in CSI1102.
- The names, office hours and venues of the TAs will be placed on the CSI1102 course website as soon as it has been finalized.
- You are allowed to attend any other practice labs in addition to your scheduled lab.
 - But, of course, scheduled students get priority if the lab is full
 - Just go to the lab, wait 5 minutes that everyone in installed. **If there is space**, you can join.

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CSI1102: About the labs

- Total of four lab assignments
 - Allocated 2-3 weeks per lab assignment:
 - practice time and demos/marking
- For example, during the week of 17 January 2005, you attend the lab and complete assignment 1. This assignment will subsequently be marked in the lab a week later, during the week of 25 January 2005.
- You are required to attend your scheduled lab to demonstrate you projects to the TA. This is the **only place/time/way** that assignments will be marked.


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Activating your Lab Account (Colonel By B02)

You need to go to the kiosk in CBY B109 to activate your account.

- Bring along:
 - Student number
 - Infoweb pin number
- See course webpage for details about the labs.
- All the labs are in CBY B02


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Working from Home

- A strength of Java is its portability !!!!
 - → you can easily work at home and just come in and demonstrate during your scheduled lab time if you so wish
- Options
 - Download Java 2 Platform, Standard Edition (J2SE) from Javasoft at the following website <http://java.sun.com/j2se/1.4/download.html>
 - The CD with the text book contains Java 2 compiler version 1.4. Read the Readme file on how to install it.
- Make sure you have enough space!

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Working from Home (cont)

You will use a Java development environment (JDE) to develop your programs

- Options
 - RealJ (also used in Labs): Download RealJ version 3.6 from the course webpage.
 - jGrasp: Located on the CD which comes with the text book.

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A simple Java example


```

//*****
// An example Java program
//
public class Hello
{
//-----
// Task: Print the line "Hello World"

public static void main (String[ ] args)
{
    System.out.println ("Hello World");
}
}

```


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Classes

- Interactive lectures:
 - short exercises in class.
 - questions to answer together.
 - demos of Java programs.
- Please ask questions during lectures.
- Please share your comments.
- Enjoy the class and have fun!

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
Overview of Next Lecture

Chapter 1, Sections 1.3-1.5

- Introduction to Programming
- Introduction to Programming Languages
- Introduction to Graphics


Note:
I assume you are familiar with the concepts as described in Sections 1.0-1.2.
Please verify by reading through these sections!

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Homework for next class

Reading:
Chapter 1, Lewis and Loftus



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