

COSC1557E: Introduction to Computing

Instructor: Dr. Haibin Zhu
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Office Hours: Mon: 3:00pm-6:00pm or by appointment

Course Description: Problem solving with computers is discussed by Object-Centered Designs. High-level languages will be introduced with an emphasis on writing programs in C++. Control statements, functions, data types, vectors, and an introduction to input and output (I/O) streams. Supervised laboratories are conducted on: an introduction to a C++ programming environment; appropriate programming exercises emphasizing top-down design methodology and simple or structured data types; key topics of the discipline and areas of applications, the use of the Internet for communication and research. It is designed as a first course for majors in Computer and Mathematical Sciences and has implied prerequisites.

Topic prerequisites: Knowledge and understanding of the use, terminology, and notation of mathematical functions.
 Textbook: C++ For Everyone, 2nd Edition, Cay S. Horstmann, December 2010, Wiley, ISBN: 978-0-470-92713-7.

Lecture Notes:

<http://uts.nipissingu.ca/haibinz/lect1557.htm>
<http://mathbits.com/MathBits/CompSci/compsci.htm>

Course grade:

- Two tests (30%) and one final exam (34%), (Or one final exam (64%))
- 4 programming projects (16%), and
- 10 Laboratory reports (20%).

Schedule for COSC1557
(Lecture Tuesday 6:00PM - 7:50PM, H105)
(Lab Tuesday 11:00pm-1:00pm, Thursday 6:00pm-7:50pm, A120)

Lecture	Date	Lecture and Lab	Notes
1	09/03	Lect1	Software Engineering and Objects
	09/05, 10	Lab1	Use Visual C++
2	09/10	Lect2	Operations
	09/12, 17	Lab2	C++ Expressions
3	09/17	Lect3	Functions
	09/19, 24	Lab3	More on C++ Expressions
4	09/24	Lect4	Using Classes, Proj1
	09/26, 10/01	Lab4	Simple Functions
5	10/01	Lect5	Selections
	10/03, 08	Lab6	Controlling Function Behavior
6	10/08	Test1	H105 (Written Test) , Proj 1 due, Proj2
	10/10, 22	Lab5	<i>string</i> Class and Objects,
	10/15	Study Week	<i>No Lecture</i>
	10/15	Study Week	<i>No Lab</i>
7	10/22	Lect6	Repetition
	10/24, 29	Lab7	<i>Switch</i> Selection
8	10/29	Lect7	Parameter Passing Mechanisms Chap 8, Proj2 due
	10/31, 11/05	LAB Test	A120 (Lab Test)
9	11/05	Lect8	Scopes, Proj3
	11/07, 12	Lab8	Parameter Passing and Scope
10	11/12	Lect9	File I/O
	11/14, 19	Lab9	File I/O
11	11/19	Lect10	Vectors, Proj3 due , Proj4
	11/21, 26	Lab10	Vectors
12	11/26	Review/Q&As	Review, Proj4 due
	12/??	Final Exam	

Note: Everything may be subject to change, please pay attention to the class declarations.