

COSC1557E: Introduction to Computing

Instructor: Dr. Haibin Zhu
Office: A124A **Ext:** 4434
Email: haibinz@nipissingu.ca

Web: <http://faculty.nipissingu.ca/haibinz>
Office Hours: Mon. & Wed.: 3:00pm-7:30pm or
 by appointments, Teams, and emails

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:

<https://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: Friday 9:00AM - 11:50PM, RM: A122)

(Lab S1: Wednesday 12:00PM - 12:50PM, Lab S2: Monday 12:00PM - 12:50PM, RM: A120)

Week	Date	Lecture and Lab	Notes
1	09/04, 09	Lab 0	Google Searching / ChatGPT
	09/06	Lecture 1	Software Engineering and Objects, Chap1,
2	09/11, 16	Lab 1	Use Visual C++
	09/13	Lecture 2	Operations Chap2
3	09/18, 23	Lab 2	C++ Expressions
	09/20	Lecture 3	Functions, Chap3
4	09/25, 10/02	Lab 3	Functions (TA)
	09/27	Lecture 4	Using Classes, Chap4, Proj1
5	10/04	QA, Written Test (10:00am-11:50am)	Project 1 due
6	10/07, 09	Lab 4	<i>More about C++ Expressions and Functions</i>
	10/11	Lecture 5	Lecture, Chap5, Proj2
7	10/14, 16	Study Week	<i>No Lab</i>
	10/18	Study Week	<i>No Lecture</i>
8	10/21, 23	Lab 5	String class and objects
	10/25	Lecture 6	Repetition, Chap6-7
9	10/28, 30	Lab 6	Controlling Function Behavior
	11/01	Lecture 7	Parameter Passing Mechanisms Chap 8, Proj2 due
10	11/04, 06	Lab 7	<i>Switch</i> Lecture
	11/08	Lecture 8	Scopes Chap8, Proj3
11	11/11, 13	LAB Test	
	11/15	Lecture 9	File I/O, Chap9,
12	11/18, 20	Lab 8	Parameter Passing and Scope
	11/22	Lecture 10	Vectors, Chap10, Proj3 due, Proj4
13	11/25, 27	Lab 9	File I/O
	11/29	Review/Q&As	Review, Proj4 due
14	12/02, 04	Lab 10	Vectors
	12/??	Final Exam	

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