

Simon Fraser University – School of Computing Science
CMPT 135: Introduction to Computer Programming II – Spring 2025

Introduction

This course is a rigorous introduction to object-oriented programming and computing science using C++, intended for students who have already taken CMPT 130 as an introduction to algorithms and programming. Students will learn basic principles of algorithm design and basic and intermediate techniques for object-oriented software development. It is expected that students already know the C or C++ programming language.

Topics:

- Brief review of elementary programming and introduction to C++
- Basic object-oriented programming and software design
- Polymorphism and inheritance
- Program design, specification, and testing; problem solving
- Abstract data types; elementary data structures; fundamental algorithms; recursion
- An informal introduction to computability and complexity analysis
- Templates and the Standard Template Library

Lectures, People and Office Hours

Lectures:

Section D100: 12:30 – 1:20pm Mondays, Wednesdays, and Fridays in room SRYE 2016

Labs:

Section D101: 1:30 – 2:20pm Wednesdays in room SRYE 4013
Section D102: 10:30 – 11:20am Thursdays in room SRYE 4013
Section D103: 10:30 – 11:20am Thursdays in room SRYE 4013
Section D104: 11:30am – 12:20pm Thursdays in room SRYE 4013

Instructor:

Harinder Singh Khangura (khangura@sfu.ca), Office: SRYE 5104
Office Hours: Tuesdays 10:00 – 11:00am
Thursdays 4:00 – 5:00pm
Fridays 4:00 – 5:00pm

All office hours are held via Zoom. Please feel free to arrange appointments with me, or to ask questions in email.

Teaching Assistants:

Khang Nguyen (ktn14@sfu.ca)
Divya (dda88@sfu.ca)

Please do not send e-mail to the TAs or to the instructor for general questions. Such questions should be posted to the course discussion forum. However, it is acceptable to use e-mail if the question is of a more personal nature, for instance, if it concerns how you have been doing in the course.

Textbook

Required text:

Problem Solving with C++ (10th edition), Walter Savitch, Pearson, 2017, ISBN: 9780134448282

Reference text:

The C++ Programming Language (4th edition), Bjarne Stroustrup, Addison-Wesley Professional, 2013, ISBN: 9780321563842

On-Line Services

<https://coursys.sfu.ca/2025sp-cmpt-135-d1/pages/>

The discussion forum is required reading. It will be used for helpful links and other important material that may not be mentioned in class. You can use the discussion forum to ask questions about the course work. The TA and instructor will check the board periodically. **This is where all general queries should be posted.** The instructor and TA cannot answer queries of a general nature by e-mail. Personal questions (ones that you do not want anyone else to see) may be sent to the instructor or TA by e-mail. Some notes:

- Before posting a question, see if the question has already been posted and answered.
- Everyone in the class is encouraged to answer posted questions.
- **You may not post fully complete programs to the discussion forum**, only code snippets illustrating the specific problem you are encountering.

Marking Scheme

- **20% Assignments** (there will be 4-5 assignments during the term)
- **10% Quizzes** (generally worked on during weekly labs)
- **20% Midterm** (tentatively scheduled for the end of February)
- **50% Final Exam** (scheduled by the Registrar during the exam period)

Students must attain an overall passing grade on the weighted average of exams in the course in order to obtain a clear pass (C- or better).

Academic Conduct

As a member of the SFU community, you are expected to abide by the rules of academic honesty and student conduct as detailed in the calendar. Ignorance of these policies is no excuse if you run afoul of them! Submitting the work of another person as your own (i.e. plagiarism) constitutes academic misconduct, as does communication with others (either as a donor or recipient) in ways other than those permitted for assignments and exams. Specifically, for this course, the rules are as follows:

- Assignments are to be done alone, unless otherwise given permission to work in groups.
- You may not, under any circumstances, submit any work not written by you or look at another student's work.
 - This includes the use of tools such as ChatGPT or Microsoft CoPilot
- You may not share your work with others.
- You may not copy substantial parts of an assignment from an outside source. If you take a *few* lines of code from an outside source, you must cite it by including a URL in the comments.

Violations of these rules constitute serious academic misconduct, and they are subject to penalties ranging from a grade of zero on a particular assignment to indefinite suspension from the University. If you are in any doubt about the interpretation of these rules, consult the instructor or a TA!