CMPT 127 - D300 Computing Laboratory

**Instructor(s):** Anne Lavergne

**SFU Burnaby**

**Calendar Objective/Description:**
Computing Laboratory

**Instructor's Objectives:**
This course builds on CMPT 120 to give a hands-on introduction to programming in C and C++, basics of software development process (design-implementation-testing), essential algorithms and data structures. Guided labs teach the standard tools and students exploit these ideas to create software that works. To be taken in parallel with CMPT 125. This is a lab-only course and attendance in the lab sessions is ***mandatory***.

**This semester, this course is offered online via the Internet. Therefore, students will need access to a computer, the Internet and a browser application. Other computer-related requirements will be discussed during the semester.**

**Prerequisites:**
see go.sfu.ca

**Topics:**
- C and C++ programming
- Testing and debugging strategies
- Structured programming using functions
- Compound data types and objects
- Implementation of search and sort algorithms
- Abstract data types and classes
- Practice writing programs to specification
- Recursion
- Empirical performance measurement and comparison with algorithm analysis

**Grading:**
Students will complete several individual assignments (lab tasks). All assignments are automatically graded by an online server. There will also be weekly exercises as well as in-lab exams.

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 Honesty Statement:**
Academic honesty plays a key role in our efforts to maintain a high standard of academic excellence and integrity. Students are advised that ALL acts of intellectual dishonesty will be handled in accordance with the SFU Academic Honesty and Student Conduct Policies (http://www.sfu.ca/policies/gazette/student.html).