

**Prerequisites** A C<sup>-</sup> or better in CPSC 100 and CPSC 141, or *written* permission of the instructor.

**Professor** Dr. David Casperson

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**Rooms** Lectures are in 7-238; tutorials are in 5-124 (M) and 5-183 (R), and labs are in 5-164.

#### Hours

|       | M     | W     | R          | F   |
|-------|-------|-------|------------|-----|
| 8:30  | Tut A |       |            |     |
| 10:00 |       |       | Lab 3      |     |
| 10:30 |       |       |            |     |
| 11:30 |       |       |            |     |
| 13:00 |       |       | Tut B      |     |
| 13:30 | Lec   | Lec   | &<br>Lab 4 | Lec |
| 14:30 |       |       | Lab 5      |     |
| 16:00 | Lab 1 | Lab 2 |            |     |

**Text** *C++ How to Program*, **third** edition, by H.M.Deitel and P.J.Deitel.

**Reference** *The C++ Programming Language*, **third** edition, by B. Stroustrup.

#### General

- This is a four-credit course, and you should expect to spend at least 33% more time on this course than you do on regular three-credit courses. In particular, be prepared to spend time outside of formally scheduled classes working with team members on a team project.
- Late assignments will be assessed 10% penalty for each day that the assignment is late. Assignments are due at the beginning of class, laboratory, or tutorial unless otherwise specified.
- Discussion of assignment topic is encouraged but all assignments must be done independently. Copying assignments is considered cheating. Responses to cheating include awarding a mark of -100% on the assignment or examination in question *and* written notification of the Dean of Science and Management. Please read the UNBC Calendar discussion of "Academic Dishonesty" carefully.
- **Quizzes will be unannounced and will be given during lectures, tutorials or labs.** No makeup exams/quizzes.

#### Dates & Grading

|                |   |     |               |
|----------------|---|-----|---------------|
| First class    | : |     | 3 Jan, Fri    |
| Exam 1         | : | 15% | 7 Feb, Fri    |
| Last drop day  | : |     | 13 Feb, Thurs |
| Winter Break   | : |     | 17 Feb–21 Feb |
| Exam 2         | : | 15% | 7 Mar, Fri    |
| Course eval    | : |     | 26 Mar, Wed   |
| Last class     | : |     | 4 Apr, Fri    |
| (Final) Exam 3 | : | 35% | 7–16 April    |
| Assignments    | : | 15% |               |
| Team Project   | : | 15% |               |
| Quizzes        | : | 5%  |               |

#### Topics Covered (not necessarily in the

**order listed)** Pointers, register variables, memory organization. Dynamic storage allocation and linked lists. Characters and Strings. Debugging. Object-oriented programming concepts. Classes and Data Abstraction. Namespaces and program organization. Operator overloading. Inheritance. Polymorphism. Exceptions and error handling. Stream I/O and type-safe input/output. File Processing.