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## CS 202 C++ Coding Standards

**Rule 1** *Source code files in C++ must have the file name extension “.cc”; header code files must have the file name extension “.h”.*

*If you develop on a home system that has some other convention and then port here, and it compiles, we’ll live with it.*

**Rule 2** *Every source code file must begin with a block comment that gives general information about the module (and the programmer’s name).*

**Rule 3** *Every class must be immediately preceded by a block comment describing the class.*

**Rule 4** *Every function must be immediately preceded by a block comment describing the function.*

*Very short constructors and destructors may omit this.*

**Rule 5** *Class, function and variable names must be meaningful, and must begin with a lower case letter and contain at least three symbols. Variable names must have a short comment at their declaration or definition.*

Exceptions: Local variables only: Loop control variables, array indices,  $x, y, z$  used for coordinates, a short list of input parameters of a short function.

**Recommendation 6** *Variable names should be 5 to 15 characters long, and consist of one to three English words. Words should be either separated by underscores, or each word but the first capitalized. (Use the same style throughout!)*

**Recommendation 7** *Do not use different variable names that differ by a single character.*

**Rule 8** *Pick some consistent style for the use of curly braces, and use it everywhere.*

**Rule 9** *Leave one blank space after each comma, and each C++ reserved word (e.g., “if” or “return”).*

Exceptions: No space between sizeof and the open parenthesis.

**Rule 10** *Do not put any space between a unary operator and its argument. Do not put any space between an array name and an indexing []. Do leave one space on either side of a binary operator.*

Exceptions: Do not put a space around “.” or “->”. In a deeply nested expression, you may omit the space around operators at the deepest level of nesting either to improve readability or to avoid a line break.

**Recommendation 11** *In any UIC CS course numbered 202 or higher, expect the TA to take off points if the programs you turn in do not obey decent coding standards.*

*If the instructor is one of Buy, Drake, or Sloan, expect the TA to take off a lot of points.*