

# C++ STYLE / GENERAL PROGRAMMING

LET THE TYPE CHECKER CATCH YOUR BUGS

USE CONST

PASS PTRs to Class / STRUCTURE

USE CLASSES TO PASS ARGUMENTS

Constructor for Default Params

AVOID CASTS WHEN POSSIBLE

~~DON'T~~

ERROR CHECK BEFORE CONSTRUCTORS

GROUP DATA THAT GOES TOGETHER

Check for errors before they occur

Know whose responsible for memory

Avoid copying heavy objects

Write small, testable units of code

Write accessors if they are clearer

Functionality first - speed later

Think before you hack

Choose data structures wisely

Design for debuggability

viewers for operations / data structures

Be careful of automatic conversions

Heed warnings

Devise good test cases

known answers

exercise code

boundary conditions

easy cases

Write as little code as possible

Be careful with language features

Data is easier than code

Declare variables when they are used

Check pre-conditions and invariants

Avoid MACROS

Prefer new/delete to malloc/free

Effective C++ / More Effective C++

careful returning &

don't keep pointers to auto variables

Use auto variable for short lived objects only