# Introduction

For this assignment you will need to read two chapters from the *C++ Coding Standards* book and write a paper on what you have learned. This assignment will expose you to just a few practices that will help you to become a more effective programmer. It is for this reason that you are encouraged to complete the assignment before the Week 9 due date.

# Research

* The following book is available for 2-hour check-out from the library
  + *C++ Coding Standards: 101 Rules, Guidelines, and Best Practices*
  + By Herb Sutter & Andrei Alexandrescu
  + ISBN: 0321113586
* Alternatively, selected chapters from the book may be found at <http://books.google.com>.
* Select ***one*** of the following topics and complete the assignment according to the instructions for that topic.

# Topic 1: Design Style

* Read - Chapters 5 & 11.
* Write - In your own 500 words (+/- 10%), explain:
  + What is meant by giving one entity one cohesive responsibility?
  + What are the benefits of giving one entity one cohesive responsibility?
  + What are the drawbacks of giving one entity multiple responsibilities?
  + What is meant by hiding information?
  + What are the benefits of hiding information?
  + What are the drawbacks of exposing information?
  + What is meant by abstraction?
  + Can you cite from your personal experience instances where these practices could have been applied?
* Submission
  + Check spelling and grammar to avoid penalties.
  + Check your word count (500 +/- 10%) to avoid penalties.
  + Report must be in Word or OpenOffice format.
  + Report must be submitted via Moodle by midnight of lab day in ***Week 9***. Late submissions will be penalized -25% if less than one week late. Beyond one week the submission will receive a score of 0%.
  + Submission must conform to the following naming convention:
    - GAM150(section)\_(login)\_DesignStyle.(file type)

# Topic 2: Premature Optimization/Pessimization

* Read - Chapters 8 and 9.
* Write - In your own 500 words (+/- 10%), explain:
  + What is meant by premature optimization?
  + What are the drawbacks associated with premature optimization?
  + What are the recommended alternatives to premature optimization?
  + What is meant by premature pessimization?
  + How is avoiding premature pessimization different from premature optimization?
  + Can you cite from your personal experience instances where these practices could have been applied?
* Submission
  + Check spelling and grammar to avoid penalties.
  + Check your word count (500 +/- 10%) to avoid penalties.
  + Report must be in Word or OpenOffice format.
  + Report must be submitted via Moodle by midnight of lab day. Late submissions will be penalized -25% if less than one week late. Beyond one week the submission will receive a score of 0%.
  + Submission must conform to the following naming convention:
    - GAM150(section)\_(login)\_Optimization.(file type)