

<b>Course Outcomes Guide 2018</b>
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**Course/Program Title:** CSC 232/IST 232 Advanced C++ Programming

**Date:** 5/2018

**Course/Program Team:** **Course Canceled**

**Expected Learning Outcomes:**

- Develop C++ programs that use a variety of data structures such as arrays, 2D arrays, vectors, and queues.
- Design, code and test object oriented applications that incorporate concepts such as structures, classes and inheritance.

**Assessment:** (How do or will students demonstrate achievement of each outcome?)

- Programming Labs – Students will complete software projects which are designed to demonstrate the use of:
  - Data structures such as Arrays, 2D-Arrays, Vectors, and Queues
  - OOP concepts such as structs and classes
  - Inheritance and Composition
  - Recursion
  - See the attached “Word Search” program assignment with code and the “War” program assignment with code.
- Examinations – Students will be able to demonstrate:
  - use of the C++ programming language syntax and semantics
  - ability to read and write programs
  - See attached Midterm and Final exams.

**Validation:** (What methods have you used or will you use to validate your assessment?)

- IST Advisory Committee Recommendations
- ANSI coding practices

**Results:** (What do your assessment data show? If you have not yet assessed student achievement of your learning outcomes, when is assessment planned?)

See attached grade book

**Follow-up:** (How have you used or how will you use the data to improve student learning?)

**Budget Justification:** (What resources are necessary to improve student learning?)