

## Course Outcomes Guide

**Course/Program Title:** CSC 132/IST 132 Introduction to C and C++

**Date:** 12/18/2014

**Course/Program Team:** Tom Paci-Funk

### Expected Learning Outcomes:

- Design mathematical algorithms that are structured using top-down design by way of user defined functions with parameters and return values.
- Develop C++ programs incorporating input/output, control/repetition structures and manipulations with arrays.

**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:
  - input/output statements
  - functions with return values and parameters
  - if, while, and for-loop logic structures
  - arrays
  - file I/O
  - See the attached “Weather” program assignment with code and the “Growth” 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 Exam and Final Exam.

**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?)

I see a correlation between attendance, students completing the programming assignments and students passing the exams and the course. Therefore, I need to follow up with students to make sure they are coming to class and completing the programming labs.

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

PC lab hardware; projection unit, printers, PCs  
Software Development hardware and software  
Course Management software  
Classroom Management system software