

# Crafton Hills College - Outcomes Assessment Report

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**Course:** CIS-114

**Term:** Spring 2012

**Date:**

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## *1. Learning Outcomes Statement*

Students will create an object-oriented program in C++ using classes.

## *2. Means of Assessment (Measurement Method)*

In the final exam, students are asked to write an object-oriented C++ program that consists of a class representing a voting machine. Students are asked to define and implement the class by performing four main tasks: 1) defining a class with three member variables 2) writing two constructors 3) writing two basic accessor member functions 4) writing two basic mutator member functions For each task, students are graded on a scale from 0 to 10.

## *3. Criteria for Success (Benchmark)*

For each given task, 80% of students are able to implement it correctly by scoring a 7 or higher (the scale is from 0 to 10, 10 being highest).

## *4. Summary of Evidence*

80% or more students perform satisfactorily by scoring a 7 or higher in two of the four tasks: 1) defining a class with three member variables (100%) 3) writing two basic accessor member functions (87%)  
There are two tasks on which students did not perform satisfactorily: 2) writing two constructors (61%)  
4) writing two basic mutator member functions (78%)

## *5. Use of Results (Implications for Program Improvement & Planning)*

In this assessment, students demonstrate that they can successfully define a C++ class with member variables and accessor member functions. The tasks that students have more difficulty with are writing constructors, particularly those that take parameters, and writing mutator member functions. More class time and exercises will be spent on understanding and writing constructors and mutator functions, with particular emphasis on functions that take parameters and make use of those parameters within the functions.