Division/School Approval:	1/23/15	Cf
Curriculum Committee Approval:	Date	Initial MKO
Faculty Approval:	Date 4/24/15	Initial
	Date	Initial

# SCHENECTADY COUNTY COMMUNITY COLLEGE Course Outline

ACADEMIC DIVISION/SCHOOL:	Mathematics, Science, Technology and Health	
PREPARED BY: Keion M. Clinton, Don	Riggs	
COURSE CODE: CIS 129	COURSE TITLE: Programming Fundamentals	
LECTURE HOURS/WEEK: 3 LAB	HOURS/WEEK: 0 CREDIT HOURS: 3	
PREREQUISITE/S: Eligible to enroll in 100-level math course PREREQUISITE/S OR CONCURRENT: COREQUISITE:		
FINAL EXAM REQUIRED: YES X	NO	

#### **COURSE DESCRIPTION:**

This course provides an introduction to computer programming using a modern, object oriented programming language. It is intended to be an introductory programming course, focusing on programming concepts and fundamentals.

SCCC Core Principle Course no SUNY General Education Course no

#### STUDENT LEARNING OUTCOMES:

Students successfully completing this course will:

- Describe the process of program design and development;
- Employ standard object-oriented programming principles;
- Utilize primitive data types, expressions, strings, and arrays;
- Use basic computer language concepts such as program flow, decision structure, and loops;
- Write, run, save, print and modify computer programs;
- Identify and solve syntax errors, run-time errors and logic errors; and
- Apply commonly used algorithms.

#### REPRESENTATIVE TEXT/S:

Gaddis, T. (Current edition). Starting out with Visual C# 2012, New York, NY: Pearson.

#### SUPPLEMENTARY MATERIALS/REFERENCES:

Internet resources.

#### **EVALUATION METHODS:**

Homework assignments and exams. Other methods of evaluation may be used.

NOTE: Grading and assessment criteria may appropriately differ. Grades focus on what individual students have learned while assessments focus on entire cohorts of students. Each instructor will determine his/her grading criteria for the course and state on the course syllabus.

#### REQUIRED ASSESSMENT METHODS:

Assessment results from these methods will be used for course-level assessment and, where applicable, for SCCC core principles and SUNY General Education Knowledge and Skills areas. This information will be incorporated in program reviews.

Student Learning Outcome	Method(s)
Describe the process of program design and	Assignment
development	
Employ standard object-oriented programming	Assignment
principles	
Utilize primitive data types, expressions,	Exam
strings, and arrays	
Use basic computer language concepts such as	Assignment
program flow, decision structure, and loops	
Write, run, save, print and modify computer	Assignment
programs	
Identify and solve syntax errors, run-time	Exam
errors and logic errors	
Apply commonly used algorithms	Assignment

NOTE: College policy requires a final exam or final week activity.

### **COURSE CONTENT OUTLINE:**

## COURSE: CIS 129 - Programming Fundamentals

<u>WEEK</u>	TOPIC
1	Introduction to Programming Fundamentals and the MS Visual Studio Environment
2	Techniques for good program design
3	Data Types and Operators
4-5	Selection Statements
6-7	Lists and Loops
8-9	Sub Procedures and Functions
10	Designing Multiple Files and Menus
11-12	Arrays
13	Working with Files
14-15	Introduction to Classes
16	Final Exam