

**SEWARD COUNTY COMMUNITY COLLEGE
COURSE SYLLABUS**

I. TITLE OF COURSE: CS2453- Programming Language C++

**II. COURSE DESCRIPTION: 3 credit hours
3 credit hours of lecture and 0 credit hours of lab per week.**

This course is designed to teach the basic elements of creating Windows programs using Visual C ++. Emphasis is placed on developing programs in an object-oriented integrated development environment. Students will gain applicable knowledge of class hierarchy, inheritance, methods, and object reusability.

For each unit of credit, a minimum of three hours per week with one of the hours for class and two hours for studying/preparation outside of class is expected.

Pre-requisite: None

III. PROGRAM AND/OR DEPARTMENT MISSION STATEMENT:

The CIS Program will provide superior learning opportunities in the area of information technology, utilizing state-of-the-art technology, for both CIS majors and non-CIS majors to enable all students to achieve their career and/or educational goals.

IV. TEXTBOOK AND MATERIALS:

Simply C++, Deitel

V. SCCC OUTCOMES

Students who successfully complete this course will demonstrate the ability to do the following SCCC Outcomes.

1: Read with comprehension, be critical of what they read, and apply knowledge gained to real life

5: Demonstrate the ability to think critically by gathering facts, generating insights, analyzing data, and evaluating information

6: Exhibit skills in information and technological literacy

9: Exhibit workplace skills that include respect for others, teamwork competence, attendance/punctuality, decision making, conflict resolution, truthfulness/honesty, positive attitude, judgment, and responsibility

VI. COURSE OUTCOMES:

Upon completion of the Programming Language C ++ course with 80% or higher mastery of course competencies, the student should be able to:

Employee current computer programming concepts and trends

Utilize procedural and object-oriented programming techniques to develop programs for use in the Windows operating mode

Employ sequential, selection and iteration constructs in the development of program modules

VII. COURSE OUTLINE:

- A. Introduction to Programming and Visual C++
- B. C++ Programming Basics
- C. Operators and Control Structures
- D. Debugging
- E. Introduction to Classes
- F. Memory Management
- G. Object Manipulation
- H. Inheritance
- I. Introduction to Windows Programming
- J. Microsoft Foundation Classes
- K. Working with Documents and Views
- L. Designing the Visual Interface
- M. Connecting to Databases

VIII. INSTRUCTIONAL METHODS:

Classroom Lecture
Classroom Discussion
Handouts, videos, computer presentations
Hands-on computer lab projects and programming assignments

IX. INSTRUCTIONAL AND RESOURCE MATERIALS:

Student Data Files

X. METHODS OF ASSESSMENT:

Hands-on lab assignments, projects and examinations will assess student knowledge of the programming language as covered in class.

SCCC Instructional Outcomes #1, 5, 6, and 9 (identified above) will be assessed by demonstrated proficiency in fact finding, data analysis and evaluation and use of various problem solving and programming techniques. Additionally, these outcomes will be assessed by the students' use of current programming trends and their utilization of computer hardware and software available in the classroom.

XI. ADA STATEMENT:

Under the Americans with Disabilities Act, Seward County Community College will make reasonable accommodations for students with documented disabilities. If you need support or assistance because of a disability, you may be eligible for academic accommodations. Students should identify themselves to the Dean of Students at 620-417-1106 or going to the Student Success Center in the Hobble Academic building, room 149 A.