# SEWARD COUNTY COMMUNITY COLLEGE
## COURSE SYLLABUS

**I. TITLE OF COURSE:** CS1303- Programming Logic and Design

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

This course is an introduction to programming concepts that emphasizes good style and logical thinking.  General programming concepts are introduced and key concepts of structure are defined.  Students will learn to recognize programming concepts and will learn the importance and the advantages of writing structured programs.  Students will learn to recognize looping structures, decision making structures, control breaks and arrays and will learn fundamentals in developing programs that include these structures.
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.

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Pre-requisite: NA

**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:**

Textbook selected when course is offered.

**V. SCCC OUTCOMES**

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

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


V: Demonstrate the ability to think critically by gathering facts, generating insights, analyzing data, and evaluating information
VI: Exhibit skills in information and technological literacy

**VI. COURSE OUTCOMES:**

Upon completion of the Introduction to Programming course with 80% or higher mastery of course competencies, the student should be able to:
Understand problem-solving concepts and their applications
Utilize procedural programming and object-oriented techniques to create a program algorithm
Employ sequential, selection and iteration constructs in the development of program modules
Utilize hierarchy charts, flowcharts and pseudo code for program documentation


**VII. COURSE OUTLINE:**

1. Introduction to Computers and Programming
2. Input, Processing, and Output
3. Modules
4. Decision Structures and Boolean Logic
5. Repetition Structures
6. Functions
7. Input Validation
8. Arrays
9. Sorting and Searching
10. Files
11. Menu-Driven Programming
12. Text Processing
13. Recursion
14. Object-Oriented Programming
15. GUI Applications and Event Driven Programming

## VIII.  INSTRUCTIONAL METHODS:

Classroom lecture
Classroom discussion
Handouts
Hands-on lab exercises, team projects
Related readings and reports from computer/technology periodicals
Instructors will enforce the Academic Honor code & Cheating Policy as set forth in the SCCC
College Catalog. Students who fail to adhere to this policy will receive an F for the course final
grade unless otherwise stated in the instructor's course policies.

## IX.  INSTRUCTIONAL AND RESOURCE MATERIALS:

Handouts
Hands-on lab exercises, team projects
Related readings and reports from computer/technology periodicals

## X.  METHODS OF ASSESSMENT:

Outcomes #1, #5, and #6 will be assessed by:
Hands-on lab assignments, quizzes and exams will assess student knowledge of the material
covered in class.
Group assignments and projects will assess student ability to think critically by gathering and
analyzing data and generating insight into problem solving methodology.

## 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.

Syllabus Reviewed:  10/12/2018 16:13:15