Introduction to Computer Programming
CPT 285
Southwestern College Professional Studies

COURSE SYLLABUS

I.   Course Catalog Description

Students learn the fundamental logic, design and applications software required to enter the Computer Programming Technology (CPT) degree program. An overview of computer programming logic, structures, documentation, design and the planning process is presented. Students install and configure the required programming tools and software used throughout the CPT programming courses. The course exposes the learner to the general object orientated programming. Concepts required – decisions making, looping, arrays, methods, and data file handling. The course is not language specific and prior programming is not required.

II.   Required and Supplementary Instructional Materials

Farrell, J. (2013). *Programming logic and design: Comprehensive* (7th ed.). Boston, MA: Course
        Technology, Cengage Learning.
Smith, J. (2013). *Java Programs to Accompany Programming Logic and Design* (7th Ed.). Florence, KY:
        Cengage Learning, Inc.

III. Learning Outcomes

Learning outcomes describe the knowledge, skills, values, and attitudes that learners gain as the result of a particular learning experience. Southwestern College Professional Studies has learning outcomes specific to each course and each undergraduate and graduate program of study, as well as institution-wide outcomes related to the mission and vision of the college. Outcomes can help learners and instructors focus on the big picture of the learning experience and can help inform potential employers about a graduate's knowledge and skills.

Upon successfully completing this course, the learner will be able to:
- Discuss computer systems, program logic, the development cycle, flow charting, pseudo code and programming models
- Work with data, create modules and design high-quality programs
- Install all required programming software for successful completion of the CPT program
- Explain programming structure
- Explain program decision making and looping
- Use and establish arrays
- Explain database file handling routines
- Explain modulation techniques using methods recursion
- Explain Object Orientated programming concepts

At the end of the course, learners may vary in their ability to achieve these outcomes. You are more likely to achieve these outcomes only if you attend class and/or online activities as required by the syllabus, complete the requirements for all assignments to the best of your ability, participate actively in class activities and group work as directed, and study diligently for exams.

IV.   Course Policies

Students are expected to read and abide by the course policies located in the instructor-specific syllabus in the blackboard course.

V. Course Requirements:

Requirements	Number of Assignments	Points Possible	Percent of Grade
Unit Worksheets	6	450	45%
Quizzes	9	360	36%
Discussions	13	190	19%
Total Points		**1000**	**100**

VI. Course at a Glance:

Unit	Reading & Preparation Activities	Graded Work Due
1	• Read Farrell Chapters 1-2 • Read language Guide Chapters 1-2 • Review chapter notes • Review chapter powerpoints • Complete "Beginning Checklist"	• Unit 1 Discussion 1 • Unit 1 Discussion 2 • Unit 1 Worksheet • Unit 1 Quiz 1 • Unit 1 Quiz 2
2	• Read Farrell Chapters 3-4 • Read language Guide Chapters 3-4 • Review chapter notes • Review chapter powerpoints • Watch the Understanding Structure video • Watch the Structuring Unstructured Logic video • Watch the Boolean Expression and Decisions video • Watch the Efficient Nested Selections video • Watch Looking in Depth OR Decisions video	• Unit 2 Discussion 1 • Unit 2 Discussion 2 • Unit 2 Worksheet • Unit 2 Quiz 1 • Unit 2 Quiz 2
3	• Read Farrell Chapters 5-6 • Read language Guide Chapters 5-6 • Review chapter notes • Review chapter powerpoints	• Unit 3 Discussion 1 • Unit 3 Discussion 2 • Unit 3 Worksheet • Unit 3 Quiz 1 • Unit 3 Quiz 2
4	• Read Farrell Chapter 7 • Read language Guide Chapter 7 • Review chapter notes • Review chapter powerpoints	• Unit 4 Discussion 1 • Unit 4 Discussion 2 • Unit 4 Worksheet • Unit 4 Quiz
5	• Read Farrell Chapter 9 • Read language Guide Chapter 9 • Review chapter notes • Review chapter powerpoints	• Unit 5 Discussion 1 • Unit 5 Discussion 2 • Unit 5 Worksheet • Unit 5 Quiz
6	• Read Farrell Chapter 10 • Read language Guide Chapter 10 • Review chapter notes • Review chapter powerpoints	• Unit 6 Discussion 1 • Unit 6 Discussion 2 • Unit 6 Worksheet • Unit 6 Quiz

VII. Other Policies and Requirements

Follow this link to the Southwestern College Professional Studies Standard Syllabus in Blackboard. You may be required to log in.