Introduction to Computer Programming



CPT 285 [all sections]
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. Course Delivery

There are two forms of course delivery Ground and Online:

Ground courses, or those that meet face-to-face on a weekly basis, also have an online component, which means some of the course content is delivered online. Southwestern College utilizes the Blackboard (Bb) learning management system.

Online courses typically contain a blend of synchronous (real-time) and asynchronous (not real-time) material. Depending on the course, you may be required at times to interact "live," which might mean attending a scheduled Collaborate session. You may also be required to view or listen to a lecture or other video on a specific date and time. Of course, if there are circumstances that prohibit you from logging in to a scheduled synchronous activity, an alternate assignment will be provided. Please refer to the Course at a Glance section which will note any synchronous activities.

IV. 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 <u>undergraduate</u> and <u>graduate</u> program of study, as well as <u>institution-wide outcomes</u> 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

Master Syllabus Version: 7-17-14

- 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.

V. Expectations

Learners can expect the instructor to:

- Respond to e-mail and phone contact attempts promptly (if you do not receive a response after
 48 hours please follow-up as a technology glitch may have occurred)
- Substantially participate in weekly discussions/lecture
- Employ impartial and consistent grading practices
- Provide assignment grades and feedback in one week or less

Instructors can expect the learner to:

- Review the syllabus in its entirety requesting clarification prior to beginning week 1 coursework
- Obtain access to the required course materials prior to the class start date or notify the instructor of any delay no later than Tuesday of week 1 of the course
- Submit course assignment questions with enough notice to receive and incorporate feedback prior to the assignment due date (see course late policy)
- Possess basic skills in Microsoft Office, and have the ability to access Blackboard
- Include the <u>course ID</u> (Ex: CORE101) on all e-mail correspondence
- Check Blackboard course announcements often during the course
- · Communicate with instructors and classmates in a professional and respectful manner
- Substantially participate in weekly discussion/lecture (it is strongly suggested that Bb posts be
 prepared in a word processing software application then checked for grammar errors prior to
 submission)
- Submit assignments via the appropriate avenue (e.g. discussion board, Bb assignment link, etc.)
- Adhere to the Southwestern College <u>Student Code of Conduct</u> and <u>Standards of Academic</u> Integrity
- Create and submit original work

VI. Grading Scale and Criteria

<u>Grade</u>	Quality Points	Course Scale
A+	4.00	100%
Α	4.00	94.0-99.9%
A-	3.67	90.0-93.9%
B+	3.33	87.0-89.9%
В	3.00	84.0-86.9%
B-	2.67	80.0-83.9%
C+	2.33	77.0-79.9%
С	2.00	74.0-76.9%
C-	1.67	70.0-73.9%
D+	1.33	67.0-69.9%
D	1.00	64.0-66.9%
D-	0.67	60.0-63.9%
F	0.00	< 60.0%

<u>Grade:</u>	Criteria and Guidelines:		
A+	The grade of A+ is reserved for a perfect score (100%) of all work in a course.		
Α	Superior work:		
	Superior performance that far exceeds the minimum expectations and demonstrates an excellent understanding of the concepts addressed in the course.		
В	Above average work:		
	Good performance that exceeds the minimum expectations and demonstrates a		
	higher than average understanding of the concepts addressed in the course.		
С	Average Work:		
	Adequate performance that meets the minimal expectations and demonstrates a		
	basic understanding of the concepts addressed in the course.		
D	Minimally acceptable work for receiving credit:		
	Below average performance that does not meet the minimum expectations and/or		
	does not demonstrate a basic understanding of the concepts addressed in the course.		
F	Failure:		
	Unacceptable performance (in a professional context, this means "you're fired.")		
WF	Withdraw/Fail:		
	A final grade of WF will be recorded for learners who either never access/attend or submit any assignments for courses.		
WD, AW, I, S, W, WM	Please refer to the <u>Grading System</u> section of the appropriate catalog.		

VII. College Policies

Students are expected to read and abide by the college policies as listed in the appropriate catalog:

- <u>Undergraduate Catalog</u>: For learners who do not possess a bachelor's degree, are pursuing an additional bachelor's degree or for graduate learners who are enrolled in 100-400 level courses.
- Graduate Catalog: For learners who have earned a bachelor's degree and are pursuing a master's degree or graduate level certificate or learners who are enrolled in 500+ level courses.

Non-Discrimination Policy

Student Code of Conduct

Academic Integrity Policy

Policies for Dealing with Violations of Academic Integrity

Incomplete Policy

Withdraw Policy

VIII. Course Policies

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

IX. <u>Technology Requirements</u>

X. Citation

Check the Academic Resources link in the course menu of your Blackboard course to find the specific requirements and resources for formatting manuscripts and documenting various kinds of sources when submitting written work.

XI. SafeAssign®

This instructor may use SafeAssign®, which is a system that allows for checking the originality of writing and proper citing. Your assignments may be run through this software.

XII. Course Requirements:

Requirements	Number of	Points	Percent of
	Assignments	Possible	Grade
Discussions	12		
Language Guide			
Worksheets			
Quizzes			
Total Points			

XIII. Course at a Glance:

XIII.	Course at a Glance:		
Unit	Reading & Preparation Activities	Graded Work Due	
1	Read Farrell Chapters 1-2	Unit 1 Discussion 1	
	 Read language Guide Chapters 1-2 	 Unit 1 Discussion 2 	
	Review chapter notes	Unit 1 Worksheet	
	 Review chapter powerpoints 	Unit 1 Quiz 1	
	 Complete "Beginning Checklist" 	Unit 1 Quiz 2	
2	Read Farrell Chapters 3-4	Unit 2 Discussion 1	
	 Read language Guide Chapters 3-4 	Unit 2 Discussion 2	
	Review chapter notes	Unit 2 Worksheet	
	Review chapter powerpoints	Unit 2 Quiz 1	
	Watch the Understanding Structure video	Unit 2 Quiz 2	
	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 		
3	 Read Farrell Chapters 5-6 	 Unit 3 Discussion 1 	
	 Read language Guide Chapters 5-6 	 Unit 3 Discussion 2 	
	Review chapter notes	Unit 3 Worksheet	
	 Review chapter powerpoints 	Unit 3 Quiz 1	
		Unit 3 Quiz 2	
4	Read Farrell Chapter 7	 Unit 4 Discussion 1 	
	 Read language Guide Chapter 7 	 Unit 4 Discussion 2 	
	Review chapter notes	Unit 4 Worksheet	
	 Review chapter powerpoints 	Unit 4 Quiz	
5	Read Farrell Chapter 9	 Unit 5 Discussion 1 	
	 Read language Guide Chapter 9 	 Unit 5 Discussion 2 	
	Review chapter notes	Unit 5 Worksheet	
	Review chapter powerpoints	Unit 5 Quiz	
6	Read Farrell Chapter 10	Unit 6 Discussion 1	
	Read language Guide Chapter 10	Unit 6 Discussion 2	
	Review chapter notes	Unit 6 Worksheet	
	 Review chapter powerpoints 	Unit 6 Quiz	

XIV. College Resources

Advising
Self-Service
Withdraw Form
Blackboard Learn

SCPS Bookstore

Deets Library

Online Writing Center: View this brief video tutorial that explains how to enroll in Blackboard

IT Support: Marilyn.clements@sckans.edu or 888-684-5335 x.121

XV. ADA Compliance Statement

Southwestern College Professional Studies is committed to making reasonable accommodations for qualified students with documented disabilities. If you have a disability that may impact your learning and for which you may need accommodations, please notify the Director of Learner Support and Academic Success, at 888.684.5335.

XVI. Senior Capstone and Graduate Projects:

The majority of the programs offered by Southwestern College Professional Studies conclude with a Senior Capstone or Graduate Project. During the Capstone or Project course students will be required to retrieve papers, assignments and projects that they created during their entire program of study. For this reason it is imperative that students design a method of storing program course work for use during their final class at Southwestern College Professional Studies.