



Introduction to Problem Solving
ISM 240
Southwestern College Professional Studies

COURSE SYLLABUS

I. Course Catalog Description

This course introduces techniques for finding solutions to problems through structured programming and refinement. Topics include principles of programming, the logic of constructing a computer program, and the practical aspects of integrating program modules into a cohesive application. Algorithms are used to demonstrate programming as an approach to problem solving.

II. Required and Supplementary Instructional Materials

Sprankle, M., & Hubbard, J. (2012). *Problem solving & programming concepts* (9th ed.). Upper Saddle River, NJ: Pearson Education.

III. Learning Outcomes

IV. 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.

V.

VI. Upon successfully completing this course, the learner will be able to:

- VII. 1. Describe the importance of programming applications as solutions to organizational problems.
- VIII. 2. Explain programming principles and logic applied to program development.
- IX. 3. Create thorough algorithms for solving problems.
- X. 4. Assess the procedures and processes for integrating program modules into a complete application.
- XI. 5. Apply ethical, legal, and socially responsible principles to develop secure programs.
- XII. 6. Construct program model to solve an organizational problem.

XIII. 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.

XIV. Course Policies

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

XV. Course Requirements:

Requirements	Number of Assignments	Points Possible	Percent of Grade
Discussions	8	280	28%
Assignments	5	200	20%
Quizzes	5	200	20%
Final Project	1	320	32%
Total Points		1000	100%

XVI. Course at a Glance:

Unit	Reading & Preparation Activities	Graded Work Due
1	<ul style="list-style-type: none"> • Participate in the Introductions discussion • Read <i>Problem solving & programming concepts</i>, Chapters 1-3 • Read Chapters 1-3 PowerPoints • View The Problem Solving Process • Attend the Collaborate Session [time/date TBA] 	<ul style="list-style-type: none"> • Unit 1 Discussion 1 • Unit 1 Discussion 2 • Unit 1 Assignment • Unit 1 Quiz
2	<ul style="list-style-type: none"> • Read <i>Problem solving & programming concepts</i>, Chapters 4-7 • Read Chapters 4-7 PowerPoints 	<ul style="list-style-type: none"> • Unit 2 Discussion • Unit 2 Assignment • Unit 2 Quiz
3	<ul style="list-style-type: none"> • Read <i>Problem solving & programming concepts</i>, Chapters 8-12 • Read Chapters 8-12 PowerPoints • Attend the Collaborate Session [time/date TBA] 	<ul style="list-style-type: none"> • Unit 3 Discussion • Unit 3 Assignment • Unit 3 Quiz
4	<ul style="list-style-type: none"> • Read <i>Problem solving & programming concepts</i>, Chapters 13-14 • Read Chapters 13-14 PowerPoints 	<ul style="list-style-type: none"> • Unit 4 Discussion • Unit 4 Assignment • Unit 4 Quiz
5	<ul style="list-style-type: none"> • Read <i>Problem solving & programming concepts</i>, Chapters 15-16 • Read Chapters 15-16 PowerPoints 	<ul style="list-style-type: none"> • Unit 5 Discussion • Unit 5 Assignment • Unit 5 Quiz
6	<ul style="list-style-type: none"> • Read <i>Problem solving & programming concepts</i>, Appendices C-D 	<ul style="list-style-type: none"> • Unit 6 Discussion 1 • Unit 6 Discussion 2 • Final Project

XVII. Other Policies and Requirements

Follow this link to the Southwestern College Professional Studies [Standard Syllabus](#) in Blackboard. You may be required to log in.