El Centro College
ITSE 1429
PROGRAMMING LOGIC AND DESIGN
Syllabus

COURSE DESCRIPTION

Prerequisites: None.

Problem solving applying structured techniques and representation of algorithms using design tools. Includes an introduction to programming, testing, evaluation and documentation.

ITSE 1429 is a 4 credit hour course. (3 lec., 4 lab.)

WECM END-OF-COURSE OUTCOMES: Identify the major concepts of structured programming; illustrate the general concepts of structured design; use design tools; solve problems using logic techniques; and produce documented algorithms.

STUDENT LEARNING OUTCOMES:

Upon successful completion of ITSE 1429, students will be able to:

- **Identify** programming design tools that incorporate critical thinking skills, visually-oriented problem solving tools, control structures, testing techniques, evaluation methods and documentation.

- **Produce** computer programs utilizing visual development tools while applying programming logic, techniques, and methods required by the industry.

- **Reinforce** programming development skills by analyzing assignment criteria, selecting appropriate decision support tools, applying critical thinking skills, and incorporating the results of group decisions.

- **Demonstrate** use of critical thinking, decision-making skills, program logic, and development design tools in problem solution.
COURSE MATERIALS

The majority of the course material was written by El Centro College instructors and is included as an e-Campus Instructional package.

Textbook Information:

Required Textbook:
1. Tradition version available in the El Centro College bookstore:

2. eTextbook (180 day subscription)
   Problem Solving and Decision Making Soft Skills for A Digital Workplace, Butterfield, Course Technology, 2010
   (ISBN 978143904114/66)
   http://www.coursesmart.com/9781439041147/66

Recommend Textbook:
   Visual Basic in easy steps, 3rd edition, by Mike McGrath, Publication:
   a. Available in local bookstores or as an e-Textbook

Students are encouraged to store assignments on a USB Flash Drive

A student of this institution (El Centro College) is not under any obligation to purchase a textbook from a university-affiliated bookstore. The same textbook may also be available from an independent retailer, including an online retailer.

Major Course Requirements

Students will complete lab exercises and projects which include:

   Identifying a choice career position
   Problem solving and decision making
   Visual programming with Alice
   Control structures
   Visual Logic (electronic flowcharts)
   Visual Studio applications
Subject Matter

Topics covered in the lecture portion of the course include:

Introduction and setting a developer's computer system
Business organizations and career options
Problem solving and decision making
  - Identifying and Defining Problems
  - Solving the Problem
  - Thinking Critically
  - Group Decision Making and Problem Solving
Program logic
Program development
Studio development (ELMS)
Database development

Disclaimer
The provisions contained in this syllabus do not constitute a contract between the student and El Centro College. These provisions may be changed at the discretion of the Coordinator/Instructor. When necessary, appropriate notice of such changes will be given to the student.

The instructor-of-record may provide additional information to enhance the course to meet the needs of the enrolled students, provided that the enhancements do not conflict with the official course syllabus.

Policies
Students should click on the links below and read all of these policies.

General institutional policies
Course-related institutional policies