El Centro College  
ITSE 1350/1450  
SYSTEM ANALYSIS AND DESIGN  
Syllabus

COURSE DESCRIPTION

Prerequisite: Any ITSE programming course or instructor approval.

Introduction to the planning, design, and construction of computer information systems using the systems development life cycle and other appropriate design tools.

ITSE 1350 is a 3 credit hour course (2 lec. 4 lab.)  
ITSE 1450 is a 4 credit hour course (3 lec. 3 lab.)

WECM END-OF-COURSE OUTCOMES: Use system design tools; identify phases of the system design life cycle; develop a prototype; compare and contrast project management tools; and develop documentation for the system life cycle.

STUDENT LEARNING OUTCOMES:

Upon successful completion of ITSE 1350/1450, students will be able to:

- **Identify** terms, tools, concepts, and the system development life cycle including planning, design, and construction.

- **Produce** documents for case studies including analysis, design, solution alternatives, implementation, operation, support and security.

- **Reinforce** skills by comparing and contrasting system design tools, developing prototypes and documentation for the system life cycle.

- **Demonstrate** knowledge of system analysis and design by submitting case studies and projects.

COURSE MATERIALS


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**
Participate in Discussion Forums addressing topics in each chapter and briefly discuss strength, weaknesses, opportunities and threats to synthesize successful competitive strategies.

Perform research tasks to develop skills in gathering, analyzing, designing & reporting marketing intelligence data.

Complete Weekly Case Study assignments which reinforce techniques presented in each chapter and involve the following phases of System Analysis & Design:
- Phase I  Systems Planning
- Phase II  System Analysis
- Phase III System Design
- Phase IV System Implementation
- Phase V System Operation & Support

The final class project is required for students to present their System Analysis & Design presentation of the Final Case Study.

Two Major Tests, a Final Exam and completion of a Final Exercise (creating a System Analysis & Design Presentation) will evaluate the student’s understanding of System Analysis & Design concepts and knowledge presented in each chapter.

Subject Matter
Topics covered in the lecture portion of the course include:

- Introduction to System Analysis & Design
- Analyzing the Business Case
- Requirements Modeling
- Data & Process Modeling
- Object Modeling
- Analysis Tools
- Development Strategies
- Output & Uses of Interface Design
- Data Design
- User Interface Design Labs
- System Architecture
- Systems Implementation
- Systems Operation, Support & Security

System Analysis and Design is the comprehensive introduction of students to the planning, analysis, design, construction, and implementation of computer information systems. Students are also introduced to key System Request Activities, such as: Business Case Study Analysis; SWOT Analysis; Strength, Weakness, Opportunities, and Threats (SWOT Analysis); Preliminary Investigation Steps; Internal and External Factors that affect Systems Projects; System Review and Feasibility; Managing System Projects using structured Systems Development Life Cycle SDLC tools; and Requirements, Data and process modeling. The assignments/ tasks allow the student to explore the use of systems analysis
and design tools; identify and explore phases of the system design life cycle; develop prototype models; compare and contrast project management tools; and SDLC.

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