#### MISSOURI WESTERN STATE UNIVERSITY

#### SCHOOL OF LIBERAL ARTS AND SCIENCES

# DEPARTMENT OF COMPUTER SCIENCE, MATHEMATICS, AND PHYSICS Undergraduate Studies Program

**COURSE NUMBER**: CSC 400

**COURSE NAME**: Systems Analysis and Design

### **COURSE DESCRIPTION:**

System Analysis and Design is the study of structured information systems development (3 semester hours). The course covers an overview of systems development methodologies; exploring schedules and models used in modern information systems development. In addition to concepts in systems analysis and design, the students will be exposed to concepts in project management, and information gathering techniques. Live projects with community sponsors will also be an integral part of the course. Prerequisites:

#### PREREQUISITE:

Credit or concurrent enrollment in CSC305. LAS Writing.

## **Project OBJECTIVES:**

- 1. To understand the object-oriented approach to information system design.
- 2. To enhance and facilitate understanding of project development requirements.
- 3. To set guidelines and time constraints for the project deliverables to facilitate timely completion.
- 4. To give students exposure to live project development.
- 5. To providing information about and exposure to current research and design tools and technologies

# **Required Text:**

Systems Analysis and Design in a Changing World, Satzinger, Edition 7<sup>th</sup> 16, Cengage L, ISBN 9781305117204

#### **COURSE OUTLINE:**

- Project Selection and Client Sponsor approval
- Request for Service and Project Charter

- Risk analysis and project budget
- UML analysis documents and schedules
- Use Case development through level III
- Constraint documentation
- Work Breakdown Schedule
- Inventory of personnel, hardware, software and all tools used to develop your project.
- Database analysis and implementation
- Human Factors Analysis and wireframes
- User Screen Prototype creation