Southeast Missouri State University

Department of Management       Course No. MG445

Title of Course:  Systems Analysis and Design      Spring 2000

I. Catalog Description and Credit Hours of Course:

Study of a systematic on-going process of systems analysis, systems design, systems implementation, systems maintenance and systems security management. (3)

II. Prerequisite(s):

(MG375 Management Information Systems and MG410 Business Database Systems) OR (IS175 Information Systems I and IS275 Information Systems II) with a minimum grade of “C"

III. Purposes or Objectives of the Courses:

Upon completion of this courses the student should be able to understand:

A. A systems approach to analyzing systems information requirements, transforming the requirements into logical/technical design specification, and implementing and maintaining information systems.

B. The concepts, tools, and techniques for effectively analyzing business systems and procedures.

C. The concepts, tools, and techniques for effectively designing business systems and procedures.

D. The concepts, tools, and techniques for effectively implementing business systems and procedures.

E. How to undertake preventive measures to keep information systems current via changing hardware, software, and procedures in response to new user requirements.

IV. Expectation of Students:

A. Students are expected to be fully participate in class discussions involving assigned readings, lectures and other activities such as individual and team projects and other class assignments.

B. Students are expected to behave in an academically honest manner to preserve the integrity of the classroom and the learning environment.

C. Students are expected to be familiar with the contents of the class outline and other instructions provided by the instructor.
V. Course Content or Outline:

A. Overview and Introduction to Management Systems Analysis and Design (3)

B. Overview of the Systems Development Life Cycles (3)
   1. Recognition of need
   2. Analysis
   3. Design
   4. Implementation and maintenance

C. Planning and Launching an Initial Investigation (3)

D. Tools of Structured Analysis and Design (6)
   1. Tools of structured analysis
      a. system flow chart
      b. data flow diagram
      c. data dictionary
      d. data structure diagram
   2. Tools of structured design
      a. structured chart
      b. pseudocode
      c. Input/output layouts
      d. file and database layouts

E. Feasibility Analysis and Report (3)

F. Cost Benefit Analysis (3)

G. Logical Design Specification (3)
   1. Preliminary design requirements
   2. Preparing the structured specification
   3. Design schedule and budget

H. Input/Output Design (3)

I. Database Design (6)

J. Procedure for Hardware/Software Selection (3)

K. System Testing and Conversion (3)

L. Planning Systems Security and Disaster Recovery Planning (3)

M. Systems Maintenance (3)
VI. Textbook(s) and/or Other Required Materials or Equipment:


VII. Basis for Student Evaluation:

A. Quality of participation in class

B. Performance on examinations, pop quizzes, in-class assignments

C. The quality of a research paper/project and its presentation in class

D. The quality of homework, computer lab assignment