A. Protocol

Course Name: Introduction to Decision Support Systems  
Course Number: CIS325  
Credits: 3  
Prerequisites: CIS 299 Systems Analysis I with C- or better

Maximum Class Size (face-to-face): 35  
Maximum Class Size (online): 35  
*Justification for online class size is due to the highly-technical nature of the course.

B. Objectives of the Course:

Upon completion of this course the student will be able to:

a) Recognize and use problem solving techniques through the use of decision support systems.
b) Create modeling concepts through the use of integrated software resources for decision making.
c) Analyze the advantages and disadvantages for decision support.
d) Demonstrate knowledge of building decision support systems with various functionalities through spreadsheet, database, and decision support software.

C. Catalog Description:

This course presents the concept of decision-making within the framework of a contextualized management information system that utilizes databases or spreadsheets as tools in the problem solving process. The course distinguishes between two logical components of a management information system: the transactional processing systems (TPS) and decision support systems (DSS), in which computer-based systems aid decision-makers in confronting problems through direct interaction with data and analysis models. Some of the topics covered include critical thinking problem-solving through decision support, information requirements diagramming and influence diagramming, modeling, decision-making, frames of references in decision-making, and decision-making techniques such as goal seeking, "What If" scenarios and graphic displays. Prerequisites: CIS 299 Systems Analysis I with a C- or better. Three credits.

D. Outline of the Course:

1. Theory  
   a) Introduction to Decision Support Systems  
   b) Definitions and Basic Concepts  
   c) Decision Making Situations, Styles, Contexts

2. Problem Solving  
   a) The Problem Modeling Process  
   b) Decision Making Frameworks and Informational Design  
   c) Data Modeling and Database Design: Denormalized Guidelines

3. Modeling  
   a) Modeling Applications  
   b) Spreadsheet Model Analysis and Design for DSS
4. Application
   a) Data Mining
   b) Data Warehousing
   c) The Internet for decision support

E. Teaching Methodology:
   1) Traditional Classroom Methodology
      This course will be taught using the lecture/discussion method and cooperative group
      method during appropriate sections of the course.
   2) Online Methodology
      This course will be taught using a variety of methods including lecture videos, activities,
      group collaborative learning, and discussion boards.
      Quality Matters™ Statement – The online course follows the standards of the Quality
      Matters™ rubric. An online homework system is required in this course.

F. Text
   A vast array of texts from a variety of publishers is available to teach this course. Some of
   these include:

G. Assessment Activities:
   1) Traditional Classroom Assessment
      Various assessment methods are used, at the discretion of the instructor, and can include
      exams, quizzes, tutorials, homework assignments, programs/projects/labs. An online
      homework submission system is used in this course.
   2) Online Assessment
      Various assessment methods are used, at the discretion of the instructor, and can include
      exams, quizzes, homework assignments, wikis, online journals and projects. An online
      homework system is required in this course.

H. Accommodations for Students with Disabilities:

OSD
Revised December 2012

Students with disabilities:

- Reserve the right to decide when to self-identify and when to request accommodations.
- Will register with the Office for Students with Disabilities (OSD) each semester to receive
  accommodations.
• Might be required to communicate with faculty for accommodations, which specifically involve the faculty.

• Will present the OSD Accommodation Approval Notice to faculty when requesting accommodations that involve the faculty.

Office for Students with Disabilities

Requests for approval for reasonable accommodations should be directed to the Office for Students with Disabilities (OSD). Approved accommodations will be recorded on the OSD Accommodation Approval notice and provided to the student. Students are expected to adhere to OSD procedures for self-identifying, providing documentation and requesting accommodations in a timely manner.

Contact Information:

• Location: Azorsky Building – Room 105
• Phone: (724) 938-5781
• Fax: (724) 938-4599
• Email: osdmail@calu.edu
• Web Site: www.calu.edu (search “disability”)

I. Supportive Instructional Materials, e.g. library materials, web sites, etc.

Library Materials:
Books located in the PILOT catalogs, library databases (Ebscohost, CIOS, Proquest, Lexis-Nexis) which include books, journals, magazines, and newspapers. Examples of holdings at the Louis L. Manderino Library are:


Rowe, Alan J. Intelligent information systems: meeting the challenge of the knowledge era, Westport, CT: Quorum Books 2006.
Information for Course Proposals

J. Proposed Instructors: Dr. Gina Boff, Dr. Gary DeLorenzo, Dr. Lisa Kovalchick, Dr. Tony Rodi or any other tenure-track CIS faculty from the Department of Mathematics, Computer Science and Information Systems.

K. Rationale for Course: Course already exists and being updated for Global Online delivery.

L. Specialized Equipment or Supplies Needed: None

M. Answer the following questions using complete sentences:

1. Does the course require additional human resources? No, the course is already being taught.

2. Does the course require additional physical resources? No. The current physical resources on campus can accommodate the teaching of this course.

3. Does the course change the requirements in any particular major? No.

4. Does the course replace an existing course? No, this course does not replace any existing courses.

5. How often will the course be taught? This course will be taught once every year.

6. Does the course duplicate an existing course in another Department or College? No.

7. What is the recommended maximum class size for this course? Recommended class size for this course is 35 for online sections, due to the highly-technical nature of the course.

N. If the proposed course includes substantial material that is traditionally taught in another discipline, you must request a statement of support from the department chair that houses that discipline. This course does not include substantial material from another discipline.

O. Please identify if you are proposing to have this course considered as a menu course for General Education. If yes, justify and demonstrate the reasons based on the categories for General Education. The General Education Committee must consider and approve the course proposal before consideration by the UCC. No; this course will not be offered on the GenEd menu.