COLUMBIA COLLEGE

MASTER SYLLABUS
(Generic Outline)

Administrative Unit: Computer and Mathematical Sciences Department

Course Prefix and Number: CISS 280

Course Title: Systems Analysis and Design I

Number of: Credit Hours: 3 Lecture Hours: 3 Laboratory Hours: 0

Catalog Description: The first in a two-course sequence (see CISS 320). Explores requirements and methods for documenting and analyzing existing business information systems; includes investigation and development of alternative solutions. Prerequisite: CISS 234 or CISS 238 or CISS 240.

Prerequisite(s)/Corequisite(s): CISS 234 or CISS 238 or CISS 240.

Text(s): Most current editions of the following:

Kendall & Kendall. *Systems Analysis and Design.* Prentice Hall.

Whitten, Bentley,& Barlow. *Systems Analysis and Design Methods.* Irwin/McGraw-Hill.

Satzinger, Jackson, & Burd. *Systems Analysis and Design in a Changing World.* Course Technologies, Inc.

Kendall, Penny. *Introduction to Systems Analysis and Design: A Structured Approach.* Business and Educational Technologies.

Burch. *Systems Analysis, Design and Implementation.* Boyd and Fraser.

Course Objectives:

- To understand information systems and the systems development life cycle from a management perspective.
- To examine the structured tools and techniques used to analyze and document business information systems.
- To learn techniques for fact-finding, oral and written communications, and cost-benefit analysis.

Measurable Learning Outcomes:

- Explain intelligently the purpose of structured systems analysis and design.
- Identify the common phases associated with the software/systems development life cycle.
- Explain the importance of information to an organization and why and how it should be managed as any other resource owned by the organization.
- Identify and describe common types of information systems.

- Explain when and why data sampling should occur during systems analysis and design.
- Explain the creation of effective interviews and questionnaires.
- Identify the function of entity relationship diagrams in structured systems analysis and design.
- Define the function of data flow diagrams in structured systems analysis and design.
- Identify common mistakes that occur when creating data flow diagrams.
- Discuss the common methods used to define the logic associated with all data flow diagram processes.
- Discuss the importance of evaluating project feasibility and how to perform cost based analysis.

Topical Outline (major areas of coverage):

- Introduction to The Systems Development Life Cycle
- Feasibility Study and Cost-Benefit Analysis
- Fact-Finding and Communication
- The Analysis Process
- Modeling Tools
- Systems Design

Recommended maximum class size for this course: 30

Library Resources: Online databases are available at http://www.ccis.edu/offices/library/resources.asp. You may access them from off-campus using your eServices login and password when prompted.

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Name Signature

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NOTE: The intention of the master syllabus is to provide an outline of the contents of this course, as specified by the faculty of Columbia College, regardless of who teaches the course, when it is taught or where it is taught. Faculty members teaching this course for Columbia College are expected to facilitate learning pursuant to the course objectives and cover the subjects listed in the topical outline. However, instructors are also encouraged to cover additional topics of interest so long as those topics are relevant to the course's subject. The master syllabus is, therefore, prescriptive in nature but also allows for a diversity of individual approaches to course material.