Course Description

This course systematically describes the entire life cycle needed to create an information system, including aspects such as system architecture, requirements analysis, interface design, output design, and project management issues. This class focuses on both theory and methods of systems analysis as applied to information systems and services. It is intended to give students a solid foundation in information systems design and analysis using an object-oriented approach. This approach is widely accepted in the information industry and academic environments. The text integrates case studies to present and apply the concepts of the analysis of information systems most commonly used in business applications.

Expected Outcomes

Students who successfully complete IIST 636 will have gained the following:

- Have a theoretical and conceptual understanding of systems analysis and design methods;
- Identify and apply major alternative methodologies used in developing information systems;
- Analyze and track issues that arise during systems analysis processes and develop an appropriate strategy to solve them and provide the required information service;
- Prepare and interpret a variety of system description documents, including physical and logical data flow diagrams, entity-relationship diagrams.

Required Textbook:

Kenneth E. Kendall and Julie E. Kendall: Systems Analysis and Design. 7E, 2008

Other supportive course materials will be distributed by the instructor.

Lecture Topics and Reading Assignments All reading assignments must be completed prior to the week’s planned lectures.

1. January 24 – Lecture Topics: The Role of the Systems Analyst
   Other activities: Introductions, housekeeping, student information form filled out.
   Reading Assignment: K&K Chapter 1.

   Other activities: Project discussions.
   Reading Assignment: K&K Chapter 2.

3. February 7 – Lecture Topics: Information Systems Project Management
   Reading Assignment: K&K Chapter 3.

4. February 14 – No Class.

5. February 21 – Lecture Topics: Requirements Analysis and UML
   Reading Assignment: K&K Chapter 4, 5, 6, and 18.
   Guest Lecturer Mark Abrhams

   Other activities: Discussion of final project content and requirements.

7. March 6 – Midterm
   Reading Assignment: Review K&K Chapters 1 through 6, and 18.

8. March 13 – No class

9. March 20 – Lecture Topics: Data Structures for Systems Design
   Reading Assignment: K&K Chapters 7 and 8.

10. March 27 – Lecture Topics: Process Modeling
    Reading Assignment: K&K Chapter 9 and 10.

11. April 3 – Lecture Topics: Designing Effective Input, Output, and Storage
    Reading Assignment: K&K Chapters 11, 12 and 13.

12. April 10 – Field trip to MET Life.
13. April 17 – Lecture Topics: User Interfaces and Data Entry
   Reading Assignment: K&K Chapters 14 and 15.
   Other activities: Update on final project status.

   Reading Assignment: K&K Chapters 16 and 17.
   Other activities: Final exam review.

15. May 1 – Preparation for final projects, final exam.

16. May 8 (Last class) - Presentation of final projects.

Requirements

Readings

Students are expected to read the assigned materials before coming to the class.

Attendance/participation

Students are expected to attend all the class sessions and fully participate in the class activities. More than two unexcused absences will result in the loss of one full letter grade. More than four unexcused absences will result in the loss of two full letter grades.

Assignments

Homework assignments are given in the form of case studies, and interactive assignments on the course companion website. Case studies will include essay-type questions, questions designed to show understanding of specific concepts that may involve diagrams, or other hands-on exercises to familiarize students with existing tools used to analyze and design information systems. Each student should complete each assignment independently and hand-in the work on time.

Points will be deducted for late assignments.

Mid-term Exam

We will have an in-class open book exam on the topics covered during the first part of the semester.

Final Exam
We will have an in-class open book exam on the topics covered during the second part of the semester.

**Final Project**

The final course project will be a group project demonstrating the use of the principals introduced in this course. Each group must choose one case, or any real or fictitious organization that uses information systems, and be able to demonstrate the use of several tools and applications introduced in this course. Presentation of the completed project, including project artifacts, will be made to the class by the entire group.

**Grading**

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<td>Class Participation</td>
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**Policies**

Students will not be excused from any due date of assignments, projects or exam for any reason. Late assignments will receive a half letter grade reduction for each day late. While a late final project or final exam will be penalized a full letter grade for each day late.

Plagiarism and cheating will result in a failing grade for the course, and will be referred to the Office of Judicial Affairs according to the policies set forth in the current University at Albany Undergraduate Bulletin or University at Albany Graduate Bulletin, whichever is appropriate to the student.

Reasonable accommodations will be provided for students with documented physical, sensory, systemic, cognitive, learning and psychiatric disabilities. If you believe you have a disability requiring accommodation in this class, please notify the Director of Disabled Student Services (Campus Center 137, 442-5490).
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