IST 412 – 001
Information Systems: Analysis, Design, and Implementation
Spring 2014

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Office Hours: M W 1:00-2:00 & T 3:00-4:00; or by appointment

Final Exam: Thursday, May 8th 3:10 p.m.-5:10 p.m.

Required Textbook: None.

Prerequisites: IST 232, 301, 334, ISAT 365, 366; IST major.

Course Description: This course examines analysis, design, and implementation of information systems. Topics will detail information systems from the perspective of end-users through various methods, including studying the development and implementation processes, designing strategies to meet end-user needs, and implementing a field-based product. Grade of C or better is required. Not for graduate credit.

Evaluation:

1. Course project 40%
2. Homework 25%
3. CoLTs 10%
4. Exam, 10%

The final grading scale is based on overall percentages with about 90% required for an A, 80% for a B, 70% for a C, 60% for a D, etc.

Policies

Homework Assignments: Students will volunteer or be asked to present homework due that class period. Late homework and CoLTs will not be accepted. If you have a special circumstance, let me know in advance. I prefer hard copies of homework, but you can email your homework to me if you have to miss class for a legitimate reason.

Participation: Students are expected to actively participate in class by asking questions, working on in-class exercises, giving presentations as individuals or as part of their team projects, and sharing personal experiences and opinions related to the topics discussed. Students who do not participate in class or miss more than 4 in-class hours without a pre-approved excuse will have their final grades reduced by one letter grade. Be sure to contact me BEFORE you miss a class, if possible. Let me know about last minute emergencies via email or phone as soon as you can.

Team Projects: The purpose of the team project is to use a structured approach to the analysis, design, and implementation a system in a team setting. Each student
will propose a potential project with a real sponsor and real deliverables. The entire class section (all your classmates) are your teammates. We are all working on as a single project team. Four (4) sub-teams (Analysis, Modeling, Design, Build) will work together to complete their builds.

### Homework Assignments

#### HW1: Summary of Systems Analyst / Business Analyst Web Sites (300 points)

- Visit at least five of the links (List each link by name and briefly describe)
- Read 5 (five) articles from the site, list article title, author, and provide ORIGINAL synopsis of the article (DO NOT copy and paste article content or print the web site).

- Write a one- to two-page double-spaced paper summarizing key information and your opinion of IIBA's site, the Certified Business Analyst Professional (CBAP), and any articles / guides / content you read and review. Include proper citations, especially for the articles. You can follow the APA format in the text for citations.

#### HW2: Class Project Proposal (50 points)

Each student will propose a project to be done as part of this class. Projects must have a sponsor (can be a student, friend, boss, community leader, etc.), provide a needed service or product, and be a good fit for this class (data-intensive, business process driven). Each student normally spends between 20-40 hours on the class project. Then write a proposal for a potential project, using the template provided in class. Talk to the sponsor before writing the proposal, and try to come up with a good proposal! (NOTE: Games, dating web sites, Facebook pages, Twitter pages, etc. are not appropriate; this should be an enterprise / business-oriented project)

#### HW3: MS Visio Diagramming 2010 Exercises (400 points)

Microsoft Visio 2010 Visio 2013 Assignment.(To Be Announced)

*Instructions will be provided based on Data Flow Diagramming & Entity Relationship Diagramming Review Material*

#### HW4: Business Analyst / Systems Analyst Interview (300 points)

Using your personal contacts, web sites, articles, or other sources, find someone who is a Systems Analyst/Business Analyst/Database Administrator/Software Engineer/Process Engineer or Programmer Analyst in the past (or is currently working as one) in any industry. Interview this person (in person, via phone, or via the Internet) and using the interview guide provided, ask him/her questions about being an Analyst/Engineer. Document your results in a two-page, double-spaced paper. Be ready to summarize your interview in class. You will put down
responses to interview questions and write a narrative report as well. Review the IIBA Interview Questions for Business Analysts and Systems Analysts for example questions and responses on this subject:

**HW5: Lessons Learned/Self Assessment (200 points)**
- Prepare your own lessons learned report (1-2-pages, double-spaced) based on personal reflections of what you learned from this class, including the team projects and presentations. Address what you learned from all aspects of the class, not just the project. (100 points).
- Write a one- to two-page self-assessment based on the team project, answering the following questions (100 points):
  1. If you had to give your team a grade for the project, what would it be? Why?
  2. What were your roles and responsibilities on the group project? How well do you think you performed on this project?
  3. Briefly assess each team member’s performance. If you had to give each person, including yourself, a grade, what would it be? To compare individual contributions, if you had 100 points to allocate to your team, how would you allocate them? If you’re a Survivor fan, what would be the order you would have voted people off of your team and why?

**Collaborative Learning Techniques (CoLT) (400 points)**

**CoLT Instructions**: Guidance and due dates will be provided in class.

- CoLT Assignment 1 (100 points), Business Analyst Blog
- CoLT Assignment 2 (100 points), Process Modeling (DFD)
- CoLT Assignment 3 (100 points), TBA
- CoLT Assignment 4 (100 points), TBA

**Special Note regarding campus safety:**

Southern Illinois University Carbondale is committed to providing a safe and healthy environment for study and work. Because some health and safety circumstances are beyond our control, we ask that you become familiar with the SIUC Emergency Response Plan and Building Emergency Response Team (BERT) program. Emergency response information is available on posters in buildings on campus, available on the BERT website at [www.bert.siu.edu](http://www.bert.siu.edu), Department of Public Safety’s website at [www.dps.siu.edu](http://www.dps.siu.edu) (disaster drop down) and in Emergency Response Guidelines pamphlet. Know how to respond to each type of emergency.

Instructors will provide guidance and direction to students in the classroom in the event of an emergency affecting your location. **It is important that you follow these instructions and stay with your instructor during an evacuation or sheltering emergency.** The Building Emergency Response Team will provide assistance to your instructor in evacuating the building or sheltering within the facility.
Project Overview

Students work in Teams (Analysis, Modeling, Design, Build) to develop each component of the final information system. Each student will submit an individual assignment for credit and then provide it to the specific team to assist in building the final system and design documentation, for instance:

*Student 1 is assigned to the Build Team and will be responsible for the final PHP code in the final system that is delivered. Early in the semester, Student 1 completes an Economic Analysis Assignment (as given by the instructor) and submits her assignment to the Analysis Team for development into the Final Economic Analysis that will be placed in the Final System Design Documentation.*

All students (regardless of Team assignment) will submit their individual work to the appropriate team for review and feedback, another instance would be:

*Student 2 is assigned to the Design Team will perform all the Screen Design work for the final information system build. During the semester, she prepares Data Flow Diagrams in support of the systems build. All her DFD’s are given to the Modeling Team for review and feedback; subsequently the Modeling Team may adopt her DFD structures into the Final System Design Documentation.*

Once all Analysis, Modeling and Design work is complete, the Build Team will implement the system features and use rapid application development techniques to keep the class apprised of progress. Each team will present their portion of the final documentation and system components at the end of the term. A single project notebook (Final System Design Documentation) will be submitted for the entire class; each Team is responsible for their own sections and the Analysis Team is responsible for formatting the final hardcopy.

Each team should be prepared for “stand up” meetings that will provide information on what your team is working on, what you've accomplished and what you plan on completing in the weeks ahead.
Name: _____________________

**Homework (1,250 points)**

HW1 Summary of Analyst / IIBA Web Sites (300 points) __________

HW2 Class Project Proposal (50 points) __________

HW3 MS Visio 2010 / Visio 2013 Diagramming Exercises (400 points) __________

HW4 Programmer / Analyst Interview (300 points) __________

HW 5 Lessons Learned/Self-Assessment (200 points) _______ (Due on day of the Final Exam)

**Collaborative Learning Techniques (CoLT) (400 points)**

CoLT Assignment 1 (200 points), Economic Analysis of Information Systems __________

CoLT Assignment 2 (200 points), TBA __________

**Exams (1,500 points)**

Exam 1 (500 points) _______ Economic Analysis of Information Systems

Exam 2 (1000 points) _______ Comprehensive ERD Exam (Midterm)

**Team Project (1,850 points)**

- Initial Status Report (TBA)
- Second Status Report (TBA)
- Web Site
- Project Notebook
- Project Report
- Final Presentation

Team Project _______ (Due on day of the Final Exam)

**Final Grade (5000 Points Possible) ________**

* Submissions may be due hard copy (unless otherwise specified in class)

**Updated January 9, 2014**