Course Syllabus

IIST636 - Systems Analysis in the Information Environment

Contact Information:

<table>
<thead>
<tr>
<th>Instructor</th>
<th>Dawit [David] Demissie</th>
</tr>
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<tbody>
<tr>
<td>Office Location</td>
<td>Draper Hall, 140-D</td>
</tr>
<tr>
<td>Office Hours</td>
<td>By appointment (phone or email/Blackboard)</td>
</tr>
<tr>
<td>Telephone</td>
<td>518-421-5506; 518-442-5110</td>
</tr>
<tr>
<td>E-Mail</td>
<td><a href="mailto:ddemissie@albany.edu">ddemissie@albany.edu</a> * In most cases, I will return your emails &amp; calls within 12 hours</td>
</tr>
</tbody>
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Course Information:

<table>
<thead>
<tr>
<th>Course / Semester</th>
<th>IIST636-Systems Analysis in the Information Environment, Spring 2016</th>
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<tbody>
<tr>
<td>Date/Time/Place</td>
<td>Online via <a href="https://blackboard.albany.edu/">https://blackboard.albany.edu/</a></td>
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<tr>
<td>Course webpage</td>
<td><a href="http://www.albany.edu/~dd536519/cs/s14/ist636/">http://www.albany.edu/~dd536519/cs/s14/ist636/</a></td>
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1. 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.

2. Prerequisite Courses:
   - IIST611 or graduate standing.
   - Good understanding of modern trends in business information analysis, in information technology, requirements analysis, database modeling, object-oriented principles and agility are a plus.
   - Undergraduate software engineering provides a good foundation for success in this class.

3. Learning Outcomes:
The following key learning outcomes have been identified for this course. The course content, readings, discussions, and assignments have been specifically designed to help students successfully fulfill these outcomes. Upon successful completion of this course, students will be able to:
   - 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.

4. Textbooks & Readings:

• Case Package: This package was specifically designed for this course and contains nine case studies. It is available through Harvard Business School Publishing at https://cb.hbsp.harvard.edu/cbmp/access/44821216 (each student needs to purchase only one HBS case and a detailed instruction about case analysis will be available on Blackboard)

5. Communication:
E-mail – Any email I write will be sent to your UA email address, which is the official email of the University. Any emails you send to me must be sent using your UA email. It is highly recommended that you access your UA email at least once daily.

Blackboard Messages – Messages can be sent back and forth through Blackboard. Messages you receive will show up in the message box on the side panel in your course.

Forum on Blackboard – I will use Blackboard to post announcements and provide general news. I have also created a forum for students to post current events relevant to the course. Unless noted elsewhere, contributions to this forum are voluntary.

Assignments – There will be required assignments for this course. Unless indicated otherwise, submit your completed assignments via Blackboard. After grading your assignment, I will return it via blackboard with comments and a grade.

Course Website- The course website will be used to post lecture notes, cases and other relevant course materials. However, this is not an online course and all course materials will not necessarily be available online or in Blackboard.

6. Course Requirements:
6.1. Weekly Assignments- (25 points)
Assignments will consist of written pieces of varying length on class topics. Each assignment will have a specified focused subject or set of subjects from which to choose. It includes quizzes, video-based questions, review exercises and/or essays. It is up to you to plan your time well in order to produce top quality assignments by the given due dates.

6.2. Forum Discussion- (15 points)
Your discussion board grade is based on the quality of the contributions you make to the discussion boards. Posts that duplicate another student’s post, contains incorrect or unsupported information, or that does not provide relevant/useful information will not be awarded credit. Proper grammar and spelled are required. You are expected to make at least one original post and respond to at least
one other student’s post for each discussion board topic. It is highly recommended that you use one of the following ways to respond to the discussion board topic:

- Supply information from your readings (do not copy from your readings and do not duplicate anyone’s post) and discuss how it relates to the topic.
- Provide new ideas that are not included in the readings but are related to the topic.
- Make connections between what other students have discussed and material from the readings.
- Provide a web link to an article, website, or other source of new information. Give a brief description of what you read/observed and how it relates to the discussion.
- Offer factual statements to defend comments, ideas, or suggestions offered by you, by others in the discussion, or by an author in one of your readings. Cite your source

6.3. Mid-term Exam- (15 points)
The mid-term exam is designed to test your understanding of materials covered during the first part of the semester. It takes less than an hour-and-half to complete the exam, although you have the full two hours to complete it.

6.4. HBS Case Analysis - (10 points)
In preparing for the HBS case analysis read the case three times. The first reading should be a quick run-through of the text in the case. It should give you a feeling for what the case is about and the types of data it contains. Be prepared to explain why you rejected any obvious alternative courses of action and provide vital facts supporting acceptance of your recommendation. Your goal is to convince everyone involved in the case that your recommendation is the best. However, a rigorous approach will consider both sides to every recommendation. You should be up-front about potential problems you might expect in implementing your recommendation.

Here is a useful framework for your case analysis:

- Situation – What is the company doing? Under what circumstances? With what results? Try to grasp the important facts and critical interrelationships.
- Strategy – What’s the current business and technology strategy (ies)? The strategy (ies) that you focus on will depend on the case. Is the current strategy appropriate given the situation?
- Issues and Options – What are the critical issues and associated options? For each issue you should have several options for addressing the issue or eliminating the problem.
- Analysis – The quality of your solution is a function of the effort expended here. Analyze each option. Perform both qualitative and quantitative analyses. After you perform your analyses the recommendations will be straightforward.
- Recommendations: What will you recommend? Be specific and demonstrate the benefits. What issues are resolved? How will it save or earn the company money.
- Implementation – How will you implement your recommendations? What’s going to happen? When? Who’s involved? What are the risks? How will you measure success?
6.5. Group Project- (20 points)
The final course project will be a group project (3-4 students) 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. A podcast presentation of the completed project, including project artifacts, will be made to the class by the entire group, (detailed information about the final project will be posted on Blackboard).

6.6. Final Exam- (15 points)
The final exam is designed to test your understanding of materials covered during the second part of the semester.

**Final grade will be computed as follows:**

- Weekly Assignments ..............25%
- Forum Discussion.................15%
- Mid-term Exam......................15%
- Group Project.......................20%
- Case Analysis.......................10%
- Final Exam..........................15%

**The following grading scale will be used in assigning letter grades:**

<table>
<thead>
<tr>
<th>PERCENT</th>
<th>GRADE</th>
<th>PERCENT</th>
<th>GRADE</th>
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<tbody>
<tr>
<td>98%-100%</td>
<td>A+</td>
<td>78%-79%</td>
<td>C+</td>
</tr>
<tr>
<td>93%-97%</td>
<td>A</td>
<td>73%-77%</td>
<td>C</td>
</tr>
<tr>
<td>90%-92%</td>
<td>A-</td>
<td>70%-72%</td>
<td>C-</td>
</tr>
<tr>
<td>88%-89%</td>
<td>B+</td>
<td>68%-69%</td>
<td>D+</td>
</tr>
<tr>
<td>83%-87%</td>
<td>B</td>
<td>63%-67%</td>
<td>D</td>
</tr>
<tr>
<td>80%-82%</td>
<td>B-</td>
<td>60%-62%</td>
<td>D-</td>
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<tr>
<td>Below 60%</td>
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7. **Delivery of Course Content:**
This course is organized by week (or topic). Each week (module) there will be an introduction to the topic. The format will vary and could include in-class lecture, text, audio, and/or video. This will be followed by readings, a discussion, and an assignment.

8. **Course Policies:**
   - **Course Changes**
     The instructor reserves the right to make changes to the course schedule, assignments or other course policies as necessary and with advance notice.
   - **Classroom Discussions**
     While debate is natural and healthy in an academic setting, disagreement (and agreement) should be done with respect and civility. Attacks of a personal nature or comments made
that are offensive based on race, sex, religion, sexual orientation, age, national/regional origin, or other descriptors will not be tolerated.

- **Attendance**
  Your in-class performance is a key to your success in this course. Attendance, itself, is not graded. Instead, graded in-class activities and assignments constitute an important part of the course grade. It is not possible to maintain a passing average without consistent attendance. Missing class means the student earns an automatic zero for the activities or assignments missed. Because of the nature of the assignments, no make-up opportunities will be available.

- **Blackboard**
  If an assignment is to be submitted on Blackboard, then only submissions on Blackboard will be accepted --- email submissions will not be accepted except without suitable excuse. (“had difficulty” is not a suitable excuse.) If you fail to submit an assignment on Blackboard by the date it is due, then barring extenuating circumstances such as sickness or a death in the family you will receive a zero for that assignment.

- **Tardiness**
  Missing an assignment or activity that happened before a student arrives or after a student leaves also earns a zero. No make-up opportunities will be available. If you know that it will be difficult for you to consistently get to class on time and stay for the entire period, you should take this course at a time that better fits your schedule. Missing or being late frequently will guarantee a low grade for the course.

- **Make-up Policy**
  There are generally no make-up opportunities for missed assignments except in extenuating circumstances. Instead of asking to make up missed work, please see the course ‘safety valves’ described below. Since there will be occasions in your life when missing a class meeting is simply unavoidable, this course has a no-fault safety valve.

- **Late Homework**
  Homework is due on the due date, in class or submitted through Blackboard, depending on the assignment. Late individual assignments will be accepted, but at the cost of a full letter grade for missing the first, in-class deadline and an additional letter grade for each additional 24 hours late. In-class assignments may be done only on the days they are scheduled.

- **Extra Credit**
  There will be no extra credit work. All students will be expected to complete, and be graded on, the same set of assignments.

- **Withdrawal from the course**
  For the drop date please see academic calendar posted at http://www.albany.edu/registrar/academic_calendar.php
Incompletes
As per the Graduate Bulletin, the grade of Incomplete (I) will be given "only when the student has nearly completed the course requirements but because of circumstances beyond the student's control the work is not completed." A student granted an incomplete will make an agreement specifying what material must be made up, and a date for its completion. The incomplete will be converted to a normal grade on the agreed upon completion date based upon whatever material is submitted by that time. Incompletes will not be given to students who have not fulfilled their classwork obligations, and who, at the end of the semester, are looking to avoid failing the course. This is asking for special treatment.

Cell Phones & Laptops
Please make sure your electronic devices are turned off before entering the classroom unless we are doing a team exercise where they are helpful. Use of phones, tablets, computers, etc. for non-class purposes during class will count against you in your class participation grade. While you will be using laptops in class, texting, using Facebook, etc., are not appropriate uses of class time and your instructor-evaluated grade will suffer for it.

9. Weather-Related Delays/Closings:
- Information on weather-related College delays or closing will be listed on MyUAlbany Announcements and available on the following TV and radio stations:
  - TV: Channel 6, 9, 10, or 13
  - Radio: WGY (810 AM), WFLY (92.3), WYJB (95.5), WRVE (99.5)
  - Phone: (518) 422-SNOW

Other Cancellations
Although it is unlikely, there is always the possibility that a class session will need to be cancelled without advance notice. If this should happen, an email will be sent as soon as possible. A notice will also be posted on the classroom door.

10. University Policies:
Americans With Disabilities Act
The University is committed to providing equal access and responding to the needs of students with disabilities, as defined by the Americans with Disabilities Act. A student seeking academic adjustments under the Americans with Disabilities Act must register and provide documentation to the Director of Disabilities Services. Any student in need of classroom assistance or modification under the Americans with Disabilities Act must inform the instructor of the needed adjustment by first obtaining the necessary accommodation letters from the Director of Disabilities Services in order for reasonable accommodations to be provided. It is recommended that students do so at the onset of classes as reasonable prior notice needs to be given. The Disability Resource Center is located in the Campus Center 137, 1400 Washington Avenue Albany, NY 12222 and can be contacted via phone at (518) 442-5490.

Policy On Academic Honesty
Students are responsible for planning and completing their assignments. They are encouraged to invite peer review and comments; they should not collaborate on writing papers. In addition, the availability of relevant texts on the Web should not tempt students to "cut and paste" without attribution. Both of these practices are wrong-headed in any context and especially troublesome in a
class that attempts to foster professional responsibility. University rules are quite strict and can be found at http://www.albany.edu/undergraduate_bulletin/regulations.html. Any student caught violating these norms will receive a failing grade for the course.

For guidance in proper referencing of sources, as well as how to avoid plagiarism, consult the most recent editions of the following works, which are available in the reference section of the libraries on the Troy and Albany campus.


Religious Observance
The University recognizes the value of participation in and observance of religious obligations and practices by individual students. No student will be penalized because a religious observance prevents participation in any course requirement. An opportunity will be provided for each student to make any requirement missed for an absence due to religious observance. A student who intends to be absent from classes for a religious observance must notify each instructor in advance and make arrangements to cover missed course materials and to complete the course requirement(s) missed. The University reserves the right to confirm the existence of the observance through an interfaith calendar.

11. Course Calendar:

<table>
<thead>
<tr>
<th>WEEKS/MODULES</th>
<th>TOPICS</th>
<th>READINGS (Kendall &amp; Kendall)</th>
<th>ASSIGNMENTS</th>
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<tbody>
<tr>
<td>Module 0: January 20-24</td>
<td>- Course logistics and introduction</td>
<td>Syllabus</td>
<td>Discussion (Introduction)</td>
</tr>
</tbody>
</table>
| Module 1: January 25-31 | - Systems, Roles, & Development Methodologies | Chapter 1 | - Quiz 1  
- Consulting Case Question  
- Discussion Forum  
- Review Questions 
Extra credits:  
- Running case  
- HyperCase problems |
| Module 2: February 1-7 | - Understanding & Modeling Organizational Systems | Chapter 2 | - Quiz 2  
- Consulting Case Question  
- Discussion Forum  
- Review Questions |
| Module 3: February 8-14 | Information Gathering- Unobtrusive Methods  
- Information Gathering- Interactive Methods | Chapter 4 & 5 | Quiz 3  
- Consulting Case Question  
- Discussion Forum  
- Review Questions  
Extra credits:  
- Running case  
- HyperCase problems |
|------------------------|-------------------------------------------------|-------------|--------------------------------|
| Module 4: February 15-21 | Project Management | Chapter 3 | Quiz 4  
- Consulting Case Question  
- Discussion Forum  
- Review Questions  
Extra credits:  
- Running case  
- HyperCase problems |
| Module 5: February 22-28 | Agile Modeling & Prototyping | Chapter 6 | Quiz 5  
- Consulting Case Question  
- Discussion Forum  
- Review Questions  
Extra credits:  
- Running case  
- HyperCase problems |
| Module 6: February 29 - March 6 | Using Data Flow Diagrams  
- Analyzing Systems Using Data Dictionaries | Chapter 7 & 8 | Quiz 6  
- Consulting Case Question  
- Discussion Forum  
- Review Questions  
Extra credits:  
- Running case  
- HyperCase problems |
| **March 6: Mid-term Exam (Chapter 1-8), 7-9pm, via https://blackboard.albany.edu/** |  |  |  |
| Module 7: March 7-13 | Process Specifications & Structured Decisions  
- Object-Oriented Systems Analysis & Design Using UML | Chapter 9 & 10 | Quiz 7  
- Consulting Case Question  
- Discussion Forum  
- Review Questions  
- Final Project Proposal  
Extra-credits:  
- Running case  
- HyperCase problems |
| Module 8: March 21-27 | Designing Effective Output  
- Designing Effective Input | Chapter 11 & 12 | Quiz 8  
- Consulting Case Question |
| Module 9: March 28 - April 10 | - Designing Databases | Chapter 13 | - Quiz 9  
- Consulting Case Question  
- Discussion Forum  
- Review Questions  
- HBS Case Analysis  
Extra credits:  
- Running case  
- HyperCase problems |
|-------------------------------|-----------------------|------------|-------------------------------------------------|
| Module 10: April 11-17        | - Human-Computer Interaction | Chapter 14 | - Quiz 10  
- Consulting Case Question  
- Discussion Forum  
- Review Questions  
Extra credits:  
- Running case  
- HyperCase problems |
| Module 11: April 18 - 24      | - Designing Accurate Data Entry Procedures | Chapter 15 | - Quiz 11  
- Consulting Case Question  
- Discussion Forum  
- Review Questions  
Extra credits:  
- Running case  
- HyperCase problem |
| Module 12: April 25 - May 1   | Quality Assurance & Implementation | Chapter 16 | - Quiz 12  
- Consulting Case Question  
- Discussion Forum  
- Review Questions  
Extra credits:  
- Running case  
- HyperCase problems |

** May 6: Final-term Exam (Chapter 1-8), 7-9pm, via https://blackboard.albany.edu/**

** May 11: Final project report & podcast presentation**

This is the overall schedule for assignments for the course. I will update this as necessary to keep it current

Harvard Business School (HBS) Cases:

**Case #1: EZ-Link and NETS E-Payment: Creating a Standard and Building a Platform Innovation**, Christina Soh; Yvonne Chong.

**Case #2: Project Nemmadi: The Bytes and Bites of ICT Adoption and Implementation in India**, 
Case #3: *Peak Experiences and Strategic IT Alignment At Vermont Teddy Bear*, Janis L. Gogan; Mark Lewis.

Case #4: *Information System Strategy at Neelkanth Drugs*, Susmi Routray; Rajendra Nargundkar; Shweta Saini; Reema Saxena.

Case #5: *San Francisco International Airport and Quantum Secure's SAFE for Aviation System*, Daniel Diermeier; Evan Meagher

Case #6: *From Theme Park To Resort: Customer Information Management At Port Aventura*, Mariano A Hervas; Joan Rodon; Marc Planell; Xavier Sala

Case #7: *Implementing an Electronic Health Record at the Central City Medical Group*, Shehnaz Alidina; Lili Beit; Michael Brown M.D.

Case #8: *Partners Healthcare System (PHS): Transforming Health Care Services Delivery Through Information Management*, Richard M. Kesner

Case #9: *F-Secure Corporation: Software as a Service (SaaS) in the Security Solutions Market*, Lynda M. Applegate; Robert D. Austin; Kalle Lyytinen; Esko Penttinen; Timo Saarinen