# IST611 Information Systems - Syllabus Fall 2010

**Lecturer:** Dr. Guy J. Cortesi guy.cortesi@gmail.com Office Hours: by appointment
**Course Description:** This course provides a detailed survey of information systems. Introduction to information systems and dominant supportive technologies. Emphasis on reprography (printing, replication, micrographic processes), computing and communications. Applications to library/information systems administration, technical services, reference services, document delivery systems. It presents conceptual, theoretical, historical, social, economic, and ethical issues surrounding the development, deployment and management of dominant information systems technologies. Topics covered include: information systems architectures, database management systems, transaction processing, ecommerce, telecommunications, software and hardware standards, Internet/Web-based systems, data warehousing, data mining, agent-based systems, and social impacts of information systems.
**Course Objectives**:
1. Understand fundamental terms and concepts of information systems and associated technology
2. Learn basic skills needed to identify and evaluate information systems and technology, assess user needs, propose solutions, and evaluate proposals for implementation.
3. Communicate effectively about information technology with salespeople, technical specialists, users, colleagues, and administrators.
**Textbooks**
1. Friedman - The World is Flat: A Brief History of the 21st Century - Further Updated and Expanded, 2007 edition (Version 3.0) in paperback ISBN-13 978-0-312-42507-4
2. Stair, Ralph M. and Baldauf, Kenneth J. Succeeding with Technology, - Succeeding with Technology 4rd Edition, 2011, ISBN-13: 978-0538745789
The textbooks are required and will be used in class when there are assigned readings. They are available at the University Bookstore in the Campus Center or at Mary Jane Books at the corner of Lark Street and Western Avenue in downtown Albany.
**E-mail**
It is important for all course students to have an Internet-based e-mail account for this class. Students may use a university account or their own personal account.
**Course Website**
This course has its own web site, containing assignments and readings. Please consult this site for the latest information regarding this course. It is located on the Internet at:
<http://www.albany.edu/~gc227838/ist611>
Blackboard will also be used to supplement the course website, and will be used for grades, file storage, presentations, etc. However, this is not an online course and all course materials will not necessarily be available online or in Blackboard.
**Exams**
There will be quiz, a mid-term examination, and a final paper.
**Grading**
Blackboard will be used to post course grades. For the course, there is both homework and assignments. Homework is normally assigned each week and is due the next week. There are four Assignments, with due dates as noted. H/W and Assignments should be printed and handed in at the beginning of class. Each should include your name, student number, H/W or Assignment #, and be stapled together, if more than one page.
Homework: 10 points (total) All H/W's are marked on a scale of 1-10 and are averaged together to total one grade of 10 points.

Quiz: (10 points) - refer to Stair chapter "test yourself" problems and review Friedman text/class discussions.
Assignment 1: 10 points
Assignment 2: 10 points
Midterm Exam: 20 points - refer to Stair chapter "Test Yourself" problems, and "Review Questions" and "Discussion Questions" and review Friedman text/class discussions.
Assignment 3: 10 points
Assignment 4: 10 points
Final Paper: 15 points
Participation (5): discussion (0-2), preparation for class (0-2), attendance ** (1)
** See also **Class Attendance/Lateness**
**Total possible points = 100**

**Grading Scale**

A: 100-95 points A-: 94-90 points
B+: 89-87 points B: 84-86 points B-: 80-83 points
C+: 79-76 points C: 75-70 points
D: 69-60 points
F: 59 points and below

**Participation**

Each student is expected to participate in every class. Positive participation means speaking so everyone can hear; asking appropriate questions; replying to questions, contributing ideas and participating in discussion without dominating it; and helping others. Positive participation creates a supportive learning environment in which other students feel comfortable asking questions and everyone contributes to the discussion. Positive participation requires that students come prepared for class. This means distilling the terminology and major concepts of assigned readings; having points of personal interest in mind for discussion; having questions in mind for ideas that are unclear; knowing what the day's topics will be and what assignments are due; and bringing appropriate texts, materials, and tools for the day's class.

**Written and Verbal Expression**

Being able to communicate effectively with all sorts of people is necessary for sustained success in managing information systems. Students are expected to use proper spelling and grammar and to adapt their speaking and writing to their audience. Those who habitually use words, phrases, abbreviations or acronyms that may be unfamiliar to the audience without proactively explaining them in an understandable way, will have points deducted in written assignments and in class participation as applicable.

**Class Attendance/Lateness**

Classes are scheduled to begin at 7:15 PM and end at 10:05 PM in Husted 004. Husted 008 will also be used for the class. It is a collaborative smart classroom (round tables) that is adjacent to HS 004 in the Husted basement. There will be a 15 minute break during each class. Students are expected to attend every scheduled class. Students are responsible for all assignments, handouts, and work done in classes that are missed.

**Academic Honesty**

Students are expected to understand and abide by the "Standards of Academy Integrity" in the Graduate Bulletin at:
http://www.albany.edu/grad/requirements_general_admissions.html#standards_integrity

**Class Schedule**

The schedule of classes as well as the other information in this syllabus is subject to change. Homework assignments will be added as the course progresses. The latest, authoritative version is the current one posted this website.

| Date/Class# | Activities | Homework/Assignments |
|---|---|---|
| 30-Aug-10 (1) | Introductions<br>Review syllabus, PC elements, Storage, I/O, selecting a PC - Buying a PC - Presentation on selecting a PC<br>Flat World Overview - Flat World - Presentation on the Flat World | **H/W 1** - Stair Pg 54, Exercises 5, 6; Go to http://www.esolveoffice.com and request a demo account (click demo). When you receive your account, login using the account info and link provided. Click "Projects" and find the IST611 Project and create / respond to a discussion entry in the IST611 project and review others.<br>Read Stair ch. 1,2; Friedman, ch. 1,2 up to page 126<br>Re-review presentations covered in class - Buying a PC - Presentation on selecting a PC; Flat World - Presentation on the Flat World<br>**(Due - 9/13)** |
| 6-Sep-10 | No Class - Labor Day | |
| 13-Sep-10 (2) | Finish PC Review<br>Networked Library/information systems for document delivery and repro; peripherals - scanners / printers, other.<br>Decision-Making; How the World Became Flat -The Flatteners | **H/W 2** - Stair Pg 109, Exercise 1<br>Read Stair ch. 3, 6;<br>Friedman, cont. ch. 2 pgs 126-200<br>**(Due - 9/20)**<br>**ASSIGNMENT 1** - See handout for Decision Matrix info needed for Assignment 1 (**Due - 9/20)** |
| 20-Sep-10 (3) | Software, Digital Media, IT Research<br>How the World Became Flat - The Flatteners (Cont).<br>**ASSIGNMENT 1 DUE** | **H/W 3** - repeat Stair Pg 54, Exercise 6 considering how open source software may effect your decisions; also Stair Pg. 382 Exercise 4 (Visit www.pixar.com and view link that explains Pixar's animation and movie making process. Summarize the steps).<br>Read Stair 5;<br>Friedman, ch. 3,4<br>**(Due - 9/27)** |

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| | | **ASSIGNMENT 2 - (Due 10/4)** |
| 27-Sep-10 (4) | Networking & telecomm<br>How the World Became Flat - Triple Convergence<br>See An Educators guide to networking for additional info on networking (http://fcit.usf.edu/network/) and this presentation on the Triple Convergence. | **H/W 4** - Stair Pg 253 Exercise 3, 4<br>Read Stair ch. 4; Friedman, ch. 5<br>**(Due - 10/4)** |
| 4-Oct-10 (5) | **QUIZ 1** - weeks 1-3<br><br>The Internet - See An Educators guide to the Internet (http://fcit.usf.edu/internet/)<br><br>America and the Flat World<br><br>**ASSIGNMENT 2 DUE** | **H/W 5 -** prepare a decision matrix that accesses the overall effectiveness of the forms of synchronous and asynchronous communication forms shown in Figure 4.26 with respect to quality, convenience and time/delay. Determine your own weights for these criteria and compare your results to those shown in Figure 4.26 (Evaluating forms of communication).<br>Read Stair ch. 11; Friedman, ch. 6<br>**(Due - 10/11)**<br>**ASSIGNMENT 3 - (Due 10/26)** |
| 11-Oct-10 (6) | Information Security<br>America and the Flat World – The Untouchables | Read Friedman, ch. 7<br>**(Due - 10/18)** |
| 18-Oct-10 (7) | **MIDTERM - weeks 1-6 (First half of class - 7:15 to 8:15)**<br>America and the Flat World – The Right Stuff | Read Stair ch. 7, 8 ; Friedman, ch. 8<br>**(Due – 11/1)** |
| 25-Oct-10 (8) | Midterm review<br>Database Systems, e-commerce (sample database),<br>America and the Flat World – The Quiet Crisis.<br>Assignment 4 and Final Project Discussions. Stair Chapter 7, 8 | **H/W 6 -** Refer to Stair Chapter 7 figure 7.11 (entity relationship diagram) and re-create and relate the presented tables and data using MS Access or Open Office. Enter at least three records of test data in each table. Display the related tables and take a screen shot showing the tables and the relationships. (In Access this go to Database tools-->Relationships). Insert this screen shot into a Word document. In the same Word |

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| | | document, provide a 2 paragraph summary of Chapter 8 in "The World is Flat".<br>Read Stair ch. 9; Friedman, ch. 9 **(Due - 11/8)** |
| 1-Nov-10 (9) | **ASSIGNMENT 3 DUE - Class Presentations**<br>More Assignment 4 and Final Project Discussions – Q&A. Database & e-Commerce wrap-up. Stair Chapter 9 - DSS/GDSS (Mrs Fields Cookies, AI (Eliza and other examples), America and the Flat World - "This Is Not A Test ". | Read Stair ch. 10; Friedman, ch. 10 **(Due - 11/8)**<br>**ASSIGNMENT 4 - (Due 11/15)** |
| 8 Nov-10 (10) | Stair Chapter 10 – Systems Development / Project Planning, Use Case Diagrams; Feasibility Analysis, Friedman, ch. 10. | Read Stair ch. 11; Friedman, ch. 11 **(Due - 11/15)**<br>Complete Assignment 4<br>Final Project Plans due in Blackboard |
| 15-Nov-10 (11) | Stair Chapter 11, Companies and the Flat World ; Smart Technology Overview for Final Project; IT Management (Altiris, SMS, WISE), IT Administration (Tech Plans, considerations - cabling, location of wiring closets, h/w & software, staffing, funding); Instructor to demo using MS Access for a database system that tracks a computers model number, serial number, MAC address, and RAM amount.<br>**ASSIGNMENT 4 DUE** | Read Stair ch. 12; Friedman, ch. 12, 13 **(Due - 11/22)**<br>Work on Final Project. |
| 22-Nov-10 (12) | Societal issues, ethics, laws; Stair ch. 12 ; Friedman, ch. 12,13 | Read Friedman, ch. 14, 15 **(Due - 11/29)** |
| 29-Nov-10 (13) | Geopolitics and the Flat World, Special Topics | |

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| 6-Dec-10 (14) | Going forward with IT; Conclusion & Wrap-up **FINAL PROJECT DUE AT START OF CLASS LAST DAY OF CLASS** | |

**Assignments**

***Assignment 1 - Requirements Assignment (paper)***
*Purpose: to apply listening, decision making and technology skills learned in class to develop a problem statement, needs assessment, and requirements specification. The student will act as the IT person and interview a technology user. The user should be an actual worker in a school, library, a help desk, an insurance firm front office, a dot-com programmer bullpen, etc, who deals primarily behind the scenes (not IT) such as a manager, clerk, administrator, or CEO. The student will attempt to discern the user's needs and present the user with several alternatives for consideration. The student should know enough about the chosen environment to be comfortable to determine the worker's need for a PC with multifunction printer/scanner or document repro system with all associated hardware and software (including peripherals) in a realistic work environment.*
*1. Define the problem (circumstances leading up to the person getting a new PC and peripherals)*
*2. Define the user's needs and selection criteria.*
*3. Develop a set of system specifications.*
*4. Scan the environment and identify at least three possible alternatives.*
*5. Conduct a decision analysis using a decision matrix and provide information about the solutions including approximate costs to the user.*
*6. Hand in items 1-5. Include printouts of all price quotes and technical specifications for all possible solutions.*
*Update: For those with **significant** PC skills, as an alternative you may research and compare these four (4) Linux distributions - Centos, Ubuntu, Red Hat Enterprise, and Fedora. You must submit a written discussion that includes the background, functionality, and differences, and also submit a decision analysis that you use to compare and then select one of these 4 versions. You should also determine the selection criteria based on your needs (such as security, support, cost, etc). Follow the same item list identified above (1-6) for PCs, substituting Linux distributions instead, for guidance as to what hand-in.*

***Assignment 2 - The Flatteners and the Triple Convergence***
In a one page 1 1/2 spaced paper, discuss three of the flatteners that Friedman mentions in the reading. Discuss the kinds of examples he gives and provide other examples. Describe what the "Triple Convergence" is and how most people completely missed it.

***Assignment 3 - Technology Update***
*Referring to the Friedman "The World Is Flat" text, investigate a technology or innovation that piques your interest such as a new hardware or software; a technology trend that has or is becoming significant in effecting our culture, or a policy issue resulting from technology that has had a major impact on society. Topics must be approved in advance by the instructor. Complete details of the assignment are available in Blackboard.*

***Assignment 4 - AI Applications***
*Use the Internet or online university library to search for new artificial intelligence (AI) applications. Write a 2-page double-space, Word-formatted report describing two of your most interesting findings and how*

*you perceive that AI will effect the flattening of the world as identified by Friedman. (I.e. - does or will these technologies effect the 10 flatteners? Will these types of technologies help to create new flatteners or minimize the effect of some of the 10? Is there a 4th convergence added to the triple convergence where not only are there 3 billion new workers in the global economy, but the same number or more AI systems performing jobs, making decisions, etc).*

***Assignment 4 bonuses (2 points)***

*Visit http://www.manifestation.com/neurotoys/eliza.php3 and try out the program "Eliza". Write a few paragraphs that discuss the types of systems technologies described in Chapter 3 and Chapter 9 that are utilized in this program and compare its operation to www.ask.com. Submit this a Word formatted document to Blackboard along with the Assignment 4 report. (1 additional point)*

*From the same site (http://www.manifestation.com/neurotoys/eliza.php3), download the code and alter the Javascript for Eliza to change its behavior and save the new version to your USB drive or a website to demo to the class. Submit the code or URL to Blackboard as part of Assignment 4. (1 additional point)*

***FINAL PROJECT - Information Systems and Technology Proposal for the Flat World***

*Decide upon an organizational environment about which you are somewhat knowledgeable and is based upon a real situation that you can provide details about. You MAY work in groups of 2 on this assignment, though this is not required. If you do this, only ONE student needs to submit the assignment in Blackboard.*

*Once the environment is defined, develop a proposal/recommendation for setting up a new "smart" office or classroom space/virtual work environment utilizing hardware/software technologies and techniques discussed by Friedman in "The World is Flat". The proposal should include an equipment list (PCs, printers, servers with shared network disk storage, specialized input or output device along with associated hardware and software, etc), technical connection diagram, a floor plan, detailed cost analysis, risk analysis, security concerns, policy issues, etc. Some suggestions for configurations that include "smart classrooms", advanced training rooms, and decision/meeting rooms may include technologies such as SMARTBoards, projectors, video conferencing, and teleconferencing.*

*The proposal, including cover page, detailed write-up and discussion as identified above and a complete list of MLA formatted references shall be approx. 8-10 double-spaced pages in length in Word format, submitted in Blackboard.*

Updated 11/1/10 gjc