ISDS 554: Electronic Commerce – Technical Perspective

Syllabus

CSUF, Spring 2002
Schedule #14618
Lab: Th 7:00-8:15 pm. LH 317
Lecture: Th 8:30-9:45 pm. MH 453
http://ecommerce.cbe.fullerton.edu/~rburke/courses/s02/isds554/

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Course Corequisite:
ISDS 555

Course Description
ISDS 554 is an introduction to technical aspects of electronic commerce. It is intended to prepare students to participate in e-commerce initiatives within an information systems context. In addition to surveying electronic commerce technologies in readings and lectures, students will work together in teams to create e-commerce web sites using Active Server Pages and database technologies.

Course Required Readings

All students
Awad, E. Electronic Commerce. Prentice-Hall.
Other readings will be available on-line.

Interest groups
(Technology) Kauffman, J. Beginning ASP Databases. Wrox Press.

Course Organization
The course is divided into lab and lecture time. Lab time will be devoted to the course project, including meetings, discussion with other students, and development work. The lecture portions of the class will consist of presentation and discussion of the technical common ground necessary for all members of the class. Students are expected to be active participants in the lecture portion of the course. However, considerable outside reading, research, and programming is expected for all students.

Students will be divided into four-person teams, each of which will work on an e-commerce project. Because e-commerce is an inter-disciplinary area of study, students will also participate in interest groups, disciplinary areas that cut across the business functions. There will be four interest groups: Design, Management, Strategy and Technology. Students are encouraged to adopt a focus that will help them expand their skills – for example, the most technical person in a group should probably not be the person
with the Technical focus. Each Interest Group has its own required readings, and the course final will be based in part on these readings. Interest groups will meet periodically and be responsible for composing discussion questions related to each week’s reading.

Learning Objectives
This course calls on you to demonstrate: (1) knowledge of e-commerce technologies, applications, protocols and concepts, (2) the ability to reason through analysis, evaluation and design of e-commerce systems, and (3) the ability to effectively apply this knowledge to the construction of such systems. Students will be expected to use the course texts and readings as well as outside references to supplement lecture material.

Assessment Measures
Students will be assessed according to their contributions to the group efforts in the class and their performance on the two exams. Group efforts will be assessed by a consensus assessment technique.

Journals
Every student will submit a one-page journal entry describing their activities during the previous week. Both individual and group activities should be described. Journal entries are due at the beginning of class on lab days. Do not use class time to work on your journal.

Functional Teams
Each functional team will be assessed based on development milestones for its e-commerce site. The milestones correspond to specific deliverables, either design documents or working programs.

Interest Groups
Interest group members will be expected to interpret each week’s readings and contribute to class discussion from the viewpoint of that group. Each lecture will begin with commentary from a member of each interest group. Interest groups will also meet periodically and discuss issues related to their focus.

Midterm & Final
The midterm will be an essay exam covering topics related to both the lecture and application aspects of the course. The final will also be an essay exam based both on course material and on the readings assigned for each student’s Interest Group. Students will receive the exam question one week prior to the exam and may bring a pre-prepared outline to the exam.

Course Grade Calculation
- Functional team (35%)
- Interest group (15%)
- Journal (10%)
- Midterm (10%)
- Final Exam (20%)
- Attendance/Participation (10%)

Attendance/Participation
I expect you to come to class every meeting day, arrive on time, and participate fully in class discussions and exercises. Attendance is especially important because the in-class activities especially at lab time are crucial to the instructional design. Thus you will be allowed only two absences during the course of the semester. If you are absent a third time, your course grade will drop by one full point. If you are absent four times, you will fail the course. This policy applies to both excused and unexcused absences. Students may only be excused for documented medical or family emergencies or religious holidays. You must notify me as soon as possible of documented absences. In addition to in-class participation, the participation grade will also include contributions to the course forum.
Readings
The readings for the course include both conceptual and technical material. Because this course meets only once a week, at times there will be both kinds of reading to do. It is expected that all students will do the assigned reading. I also expect that students will read over the course of the semester the text assigned for their Interest Group. There is somewhat less reading during the last part of the course, but you will also want to devote time to the course project during that period. Reading the book sooner rather than later may help you do your part in the group project. Part of the final will be based on your reading and application of the ideas in the Interest Group book.

Late Assignments
Deliverables and other assignments are due at class time on the assigned date, unless another time is explicitly authorized. Team deliverables except for presentations and the final project may be accepted up to one week late with a two grade-point penalty. Presentations cannot be made up and team members should be prepared to make the entire presentation in the event of the absence of any member.

Incompletes
If for some reason you need extra time to complete the course, you must submit a written request for an Incomplete (either in person or by e-mail). Such a request should be made in advance of the final exam date and should include 1) an explanation of why you are unable to meet your obligation, and 2) a completion proposal including a statement of work and the date on which you agree to submit it. Except in cases of documented emergency, I will not issue a grade of Incomplete if you ask for one on or after the date of the final.

I will handle requests for Incompletes on a case-by-case basis. If I approve your request, I will sign a copy and return it to you. Please be aware that your Incomplete is not approved until you receive the signed copy. Also, please be aware that I will not accept your work if you submit it after the date you yourself set for completion of the course.

Classroom Etiquette
• Please turn off pagers and cell phones before coming to class.
• Please do not tape lectures or discussions. If you have a documented need, please let me know.
• Please do not get up and walk out in the middle of class. Such behavior is discourteous and disruptive. If you need to leave early, please let me know ahead of time.
• Please do not chit chat or eat loud food in class.
• Please be mindful that you are part of a learning community. Treat others with respect even if you do not agree with their positions or they with yours.

Important Note
I reserve the right to modify this syllabus at any time during the course of the term. The most current course information will be available on the course web site.

Course Resources
The course website can found at http://ecommerce.cbe.fullerton.edu/~rburke/courses/s02/isds554/. This will be an important resource throughout the semester. Updated syllabus information, assignments, supplementary readings, lecture notes and links to other materials will be posted here.

The primary technical platforms for the course will be Microsoft Internet Information Server 5.0, Active Server Pages, Microsoft Access and Visual InterDev (or FrontPage). The labs and classrooms have Visual InterDev, FrontPage, and Access tools installed, and we will have the use of a Windows 2000 Server (http://mtweb.fullerton.edu/) to host web content. All students will receive accounts on this machine, for work both on- and off-campus. Students who wish to use IIS on their home machines should be careful to install the Code Red patch from Microsoft before connecting to the Internet.
Functional team deliverables

Each team will complete a series of deliverables on the way to their completed system. “Lab deliverables” are intended to be completed during specific lab times. Details on each deliverable will be provided as they are assigned.

- 2/21 (Lab) Team web site
- 2/28 (Lab) User login pages
- 3/7 Site design
- 3/14 Interface mock-ups
- 3/21 Site design critique
- 4/11 (Lab) Database pages
- 4/18 (Lab) Develop test cases
- 4/25 Implementation schedule
- 5/9 Initial implementation
- 5/9 (Lab) Final implementation plan
- 5/16 Final implementation
- 5/23 Final presentations

Performance and effort on group work will be assessed by each team using a group assessment procedure.

Interest group deliverables

Interest groups will be responsible for certain deliverables as shown below. In addition, each interest group will be responsible for contributing comments on each week’s e-commerce readings. The comment should relate the interest group’s perspective on the topic of the lecture period: a substantive issue that the reading raises, an aspect of the topic that the reading omits, or other commentary. The comments should be no more than a paragraph or two and should reflect the perspective of the respective group. For example, if the reading is about cryptography, the Technical interest group might comment about the various places in the communications hierarchy where encryption might be used, but the Management group might raise the issue of the management of cryptographic keys. Comments should be designed to further all students’ understanding of assigned material. These comments will be presented by a randomly-selected member of the interest group before each week’s lecture, and should also be provided to the instructor in electronic form for posting on the course web site.

- 3/7 (Lab) Interest group web page and main project issues
- 4/25 (Lab) Pre-implementation discussion
- 5/16 (Lab) Project post-mortem

Intellectual Honesty

It is expected that each student will do their own work and in group projects, perform a fair share. It is reasonable, even encouraged, that students discuss the problems presented in the homework assignments and possible solutions. It is also encouraged that students help each other with details of ASP programming and the programming environment. However, each team should do its own work on code development. I will consider requests to incorporate third-party code or utilities into your group project on a case-by-case basis. Such inclusions must be explicitly marked as to their source.

Schedule of Class Meetings & Assignment Due Dates

2/7..... Introduction
           Introduction to the class. Discussion of the syllabus.

2/14.... Lab Introduction
           Introduction to ASP and InterDev.
           Activity: Team formation
The E-Commerce Environment
Introduction to electronic commerce.
Reading: EC, Ch. 1, 2

2/21.... Project Introduction
Activity: Develop team web site
Due: Journal (and each succeeding week)
Reading: ASP, Ch. 1, 2

Infrastructure for Electronic Commerce
HTML and other markup languages.
Reading: EC, Ch. 4

2/28.... Basic ASP 1
Activity: Develop user login pages
Reading: ASP, Ch. 3, 4

Web Development
The process of web development. Requirements analysis: storyboarding, mockups.
Reading: EC, Ch. 5 and “Information Architecture Tutorial”

3/7...... Interest Groups
Activity: Interest group site and project issues
Due: Site design document

Platforms for Electronic Commerce
Hardware and software for electronic commerce. Platform, scalability, reliability. Search engines and other tools.
Reading: EC, Ch. 3, 4

3/14.... Basic ASP II
Due: Interface mockups
Reading: ASP, Ch. 5, 6

XML 1
History of markup languages. Role of XML in data interchange and flexible document access.
Reading: “The Evolution of Web Documents”

3/21.... ASP Objects
Due: Design critiques
Reading: ASP, Ch. 7, 8

XML 2
DTDs, object model and parsing. Examples of XML vocabularies. RDF, XSL.
Reading: “Markup and Core Concepts”

3/28.... Midterm

4/4...... No Class (Spring Break)

4/11.... ASP Databases
Activity: Develop database pages
Reading: ASP, Ch. 12, 13

Electronic Payment Systems
Electronic cash, wallets, and smart cards. Payment processing infrastructure.
Reading: EC, Ch. 8
4/18.... Test Cases
   Activity: Develop test cases
   Security for Electronic Commerce
   Reading: EC, Ch. 9, 10

4/25.... Planning
   Due: Implementation schedule
   Activity: Pre-implementation discussion
   Marketing and Customer Relationship Management
   Marketing. eCustomer service. Data mining.
   Reading: EC, Ch. 11 and TBA

4/25.... Project Implementation
   Business-to-Business E-Commerce
   Reading: EC, Ch. 13

5/2..... Project Implementation
   Distributed Computing
   Distributed object computing. CORBA. DCOM. Multi-tier web applications. Applications of XML.
   Reading: TBA

5/9..... Planning II
   Due: Initial implementation
   Activity: Final implementation plan
   Web Services
   The web services model. SOAP, WSDL and UDDI.
   Reading: TBA

5/16.... Project Discussion
   Activity: Project post-mortem
   Due: Final implementations
   Mobile E-Commerce
   Platforms for mobile web access. Cell phone, PDA and pager technologies. WAP. Issues in mobile content provisioning.
   Reading: TBA

5/23.... Presentations
   Activity: Project presentations.

5/30.... Final Exam (7:30 – 9:00 pm)