ISDS 554: Electronic Commerce – Technical Perspective

Syllabus
CSUF, Fall 2001
Schedule #16848
Lab: Tu 5:30-6:45 pm. MH 44
Lecture: Th 5:30-6:45 pm. MH 285
http://ecommerce.cbe.fullerton.edu/~rburke/courses/f01/isds554/

Prof. Robin Burke
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Office phone: (714) 278-5513
Hours: Tu 12:45-2:15, 4:30-5:30, 6:45-7:00 pm
Th 6:45-7:00 pm and by appointment
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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
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 adopted 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 also meet regularly 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 teams 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. Interest groups will also meet regularly 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.

**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 be found at http://ecommerce.cbe.fullerton.edu/~rburke/courses/f01/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. In addition, the course site hosts a discussion forum for the course. Please use this forum to ask course-related questions (other than those of a personal nature) rather than using email so that other students will get the benefit of the answer.

The primary technical platforms for the course will be Microsoft Internet Information Server 5.0, Active Server Pages, Oracle DBMS and Visual InterDev (or FrontPage). The labs and classrooms have Visual InterDev, FrontPage, and Oracle client 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.

<table>
<thead>
<tr>
<th>Date</th>
<th>deliverable</th>
</tr>
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<tbody>
<tr>
<td>9/4</td>
<td>(Lab) Team web site</td>
</tr>
<tr>
<td>9/11</td>
<td>(Lab) User login pages</td>
</tr>
<tr>
<td>9/18</td>
<td>Site design</td>
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<tr>
<td>10/2</td>
<td>Interface mock-ups</td>
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<tr>
<td>10/9</td>
<td>Site design critique</td>
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<tr>
<td>10/9</td>
<td>(Lab) Database pages</td>
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<tr>
<td>10/16</td>
<td>(Lab) Develop test cases</td>
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<tr>
<td>10/23</td>
<td>Implementation schedule</td>
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</tbody>
</table>
11/13  Initial implementation
11/13  (Lab) Final implementation plan
11/29  Final implementation
12/4-6  Final presentations

**Interest group deliverables**

Interest groups will be responsible for certain deliverables as shown below. In addition, each interest group will be responsible for contributing at least one discussion question based on the week’s reading for each lecture period. Questions should be posted on the course discussion list 24 hours before class time. The questions should reflect the perspective of the respective group. For example, if the reading is about cryptography, the Technical interest group might be expected to submit questions about how cryptographic algorithms are implemented, but the Management group might ask how responsibility for keys should be distributed in an organization. Discussion questions should be designed to further all students’ understanding of assigned material.

- 9/18  (Lab) Interest group web page and main project issues
- 10/23 (Lab) Pre-implementation discussion
- 11/29  (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 of 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**

8/21.... (Lec) Introduction
   Introduction to the class. Discussion of the syllabus.

8/23.... (Lec) The E-Commerce Environment
   Introduction to electronic commerce.
   Reading: EC, Ch. 1

8/28.... (Lab) Lab Introduction
   Introduction to ASP and InterDev.
   Activity: Team formation

8/30.... (Lec) Infrastructure for Electronic Commerce
   Protocol layers. TCP/IP. Application-layer protocols and applications. Client/server applications. HTML and other markup languages.
   Reading: EC, Ch. 2

9/4...... (Lab) Project Introduction
   Activity: Develop team web site
   Due: Journal (and each succeeding week)
   Reading: ASP, Ch. 1, 2

9/6...... (Lec) Web Development
   The process of web development. Requirements analysis: storyboarding, mockups.
   Reading: TBA
9/11.... (Lab) Basic ASP 1  
    Activity: Develop user login pages  
    Reading: ASP, Ch. 3, 4

9/13.... (Lec) Platforms for Electronic Commerce  
    Hardware and software for electronic commerce. Platform, scalability, reliability. Search engines  
    and other tools.  
    Reading: EC, Ch. 3, 4

9/18.... (Lab) Basic ASP 2  
    Activity: Interest group site and project issues  
    Due: Site design document  
    Reading: ASP, Ch. 5, 6

9/20.... (Lec) XML 1  
    History of markup languages. Role of XML in data interchange and flexible document access.  
    Reading: TBA

9/25.... (Lab) ASP Objects  
    Reading: ASP, Ch. 7, 8

9/27.... (Lec) XML 2  
    DTDs, object model and parsing. Examples of XML vocabularies. RDF. XSL.  
    Reading: TBA

10/2.... (Lab) ASP Scripting  
    Activity: Site design presentations  
    Due: Interface mock-ups  
    Reading: ASP, Ch. 9, 10, Skim 11

10/4.... (Lec) Midterm

10/9.... (Lab) ASP Databases  
    Due: Site design critique  
    Activity: Develop database pages  
    Reading: ASP, Ch. 12, 13, 14

10/11.. (Lec) Security for Electronic Commerce  
    horses.  
    Reading: EC, Ch. 5, 6

10/16.. (Lab) Test Cases  
    Activity: Develop test cases

10/18.. (Lec) Electronic Payment Systems  
    Electronic cash, wallets, and smart cards. Payment processing infrastructure.  
    Reading: EC, Ch. 7

10/23.. (Lab) Planning  
    Due: Implementation schedule  
    Activity: Pre-implementation discussion
10/25.. (Lec) Personalization
   Personalization of web sites. Recommender systems. Data mining.
   Reading: EC, Ch. 8 and TBA

10/30.. (Lab) Project Implementation

11/1... (Lec) Distributed Objects
   Distributed object computing. CORBA, DCOM. Multi-tier web applications. Applications of
   XML.
   Reading: EC, Ch. 9 and TBA

11/6... (Lab) Project Implementation

11/8... (Lec) Web Services
   The web services model. SOAP, WSDL and UDDI.
   Reading: EC, Ch. 10 and TBA

11/13.. (Lab) Planning II
   Due: Initial implementation
   Activity: Final implementation plan

11/15.. (Lec) Mobile E-Commerce
   Platforms for mobile web access. Cell phone, PDA and pager technologies. WAP. Issues in mobile
   content provisioning.
   Reading: TBA

11/20-11/22
   No class. Thanksgiving break.

11/27.. (Lab) Project Implementation

11/29.. (Lec) Project Discussion
   Activity: Project post-mortem
   Due: Final implementations

12/4... (Lec) Team Presentations

12/6... (Lab) Team Presentations

12/13.. Final Exam (5:00-6:50 pm)