

**DEPARTMENT OF INFORMATION AND DECISION SCIENCES
THE UNIVERSITY OF TEXAS AT EL PASO**

CIS 4375: Introduction to Electronic Commerce with ColdFusion
Fall 2004

PROFESSOR

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CBA 244 (office)	(office hours)

COURSE MATERIALS

Electronic Commerce, Fifth Annual Edition
Gary P. Schneider
Course Technology, 2004

Dreameaver MX Bible
Joseph W. Lowery
Wiley Publishing Incorporated, 2002

Macromedia ColdFusion
Shashi Kaparathi and Rakhee Kaparathi
Course Technology, 2002

Tutorial Materials on ColdFusion MX, Web Monkey, and Dream Weaver MX

All software tools required for the course are available in the CALC lab. These include DreamWeaver MX, Banner Pro Maker, web browsers (both Internet Explorer 5.0 and Netscape 5.0), Office 2000, a word processing package such as MS Word to save HTML and CFM files, MS Access for database development, and an FTP (file transfer protocol) tool for sending ColdFusion files to the server.

COURSE OBJECTIVES

A well-defined set of business perspectives, coupled with a good technical background, is essential in order to successfully design, develop, deploy, and operate electronic commerce (e-Commerce) Web sites. The course combines important business and technical state-of-the art

Profile

M. Adam Mahmood, MBA, Ph.D.

Dr. M. Adam Mahmood is a tenured full professor of Computer Information Systems at the Department of Information and Decision Sciences. He also holds the Ellis and Susan Mayfield Professorship in the College of Business Administration. He is a visiting faculty at the Helsinki School of Economics and Business Administration, Finland and University of Canterbury, New Zealand. Prior to joining the University of Texas at El Paso, he taught at the University of Missouri at St. Louis and worked for NASA as a visiting scholar in its Jet Propulsion Laboratory at Pasadena, California. He received his Ph.D. in Management Information Systems at Texas Tech University.

Dr. Mahmood's scholarly and service experience includes a number of responsibilities. He is presently serving as the editor in chief of the Journal of Organizational and End User Computing. He has also recently served as a guest editor of the International Journal of Electronic Commerce and the Journal of Management Information Systems. He has served two one-year terms as president of the Information Resources Management Association, an international professional organization that includes educators, researchers, and practitioners from over 50 countries. He has also served for two years as president of the Faculty Senate at the University of Texas at El Paso and a member of the University of Texas System Chancellor's Advisory Council. In 1997 and again in 1998, because of "his accomplishments as a highly respected professional in his field, he was invited to be a member of American Who's Who and International Who's Who of Professionals. In 1997, because of his technical expertise and leadership role, former Governor Bush appointed him to a Texas State Board. In 1998-99 and again in 2002-2003, because of his scientific contribution, he has been recognized by American Men & Women of Science "as being among the most distinguished scientists in the United States and Canada." In 2001 the International Biographical Centre of Cambridge, England named him as one of the 2000 Outstanding Scientists of the 20th Century. Also in 2002 Governor Perry appointed him to the State Board of Directors that oversees the Texas Department of Information Resources.

Dr. Mahmood's research interests center on the utilization of information technology including electronic commerce for managerial decision making, strategic and competitive advantage, group decision support systems, and information systems success as it relates to organizational and end user computing. On this topic and others, he has also published four edited books and over 85 technical research papers in some of the leading journals and conference proceedings in the information technology field including *Management Information Systems Quarterly*, *Decision Sciences*, *Journal of Management Information Systems*, *European Journal of Information Systems*, *INFOR -- Canadian Journal of Operation Research and Information Processing*, *Journal of Information Systems*, *Information and Management*, *Journal of End User Computing*, *Information Resources Management Journal*, *Journal of Computer-Based Instruction*, *Data Base*, and others. He has also presented papers in a number of regional, national, and international conferences. In recognition of his research, he has received a number of "outstanding research" awards various professional organizations. During the last few years, Dr. Mahmood (with L. Gemoets) had received over \$250,000 in research funds from NASA/JPL and other sources.

Professor Mahmood teaches a number of graduate and undergraduate computer information systems courses including strategic and competitive information systems, electronic commerce with Dreamweaver and ColdFusion, database management systems with Oracle and SQL, management information systems, decision support systems, information technology policy and management, and artificial intelligence and expert systems. In addition to teaching, he also supervises master's theses, professional reports, and doctoral dissertations. Most of these theses and professional reports have resulted in publications with the students and faculty colleagues in refereed research journals. In recognition of his teaching, he has also received a number of teaching awards.

topics and introduces students to these issues in order to facilitate their participation and involvement in this important endeavor. The course has a number of objectives: first, it provides students with an understanding of eCommerce business and technical aspects including the Internet and the Web infrastructure for e-commerce.

Second, it introduces them to various business models of eCommerce. Third, it acquaints them with the hardware and software components of eCommerce. Fourth, it makes them familiar with legal and regulatory issues that affect e-commerce. Fifth, it gives students direct hands-on experience in planning, designing, developing, implementing, and operating eCommerce Web sites. Sixth, it gives them an understanding of the complexities of the market place for eCommerce. Seventh, it makes them familiar with basic eCommerce economic issues such as how to price products or services on the Internet and problems of using e-money.

Topic areas covered in this course include, among others, the e-commerce infrastructure; Web-based tools for e-commerce; e-commerce hardware and software; security tools for eCommerce; electronic payment systems, marketing, sales, and promotion strategies for eCommerce; purchasing and support services, international, legal, ethical, and tax issues for eCommerce.

COURSE ORGANIZATION

The course utilizes a combination of lectures, class discussions, cases analysis, and hands-on experience with ColdFusion MX, DreamWeaver MX, FireWorks MX, Banner Pro Maker, and Web Monkey. Evaluation is based on 3 examinations including a final, class participation, listserver participation, class presentation of a business plan for the proposed eCommerce site, the quality and comprehensiveness of the actual business plan, class presentation of the designed eCommerce site, and the quality and comprehensiveness of the eCommerce site.

STUDENTS RESPONSIBILITIES

Students will need to accomplish the following in order to pursue the course objectives:

Prepare and discuss assigned review questions and exercises as a class participant. This will help you do well in the class participation part of the course.

Participate in question and answer dialogues as a member of the list server group.

Take three examinations including the non-comprehensive final and do well in these examinations. Please pay special attention to the materials covered and emphasized in the class.

Prepare and present a topical white paper (team of 3). Please follow the guidelines provided for handling the topical white paper in the next section.

Prepare and present a business plan for the Internet startup company you plan to deploy and operate (team of 3). Please follow the guidelines provided for the business plan in the next section.

Design, develop, implement, and operate the eCommerce Web site proposed in your business plan using the Dream Weaver MX software (team of 3). Again, please follow the guidelines provided for the startup company in the next section.

As obvious from the aforementioned discussion, all assignments will be carried out in groups of 3. Students will, therefore, be required to form teams of 3. Each team member is expected to contribute equally to all assignments. Each group should consist of at least one technical student (e.g., CIS, CS, Electrical Engineering, and Computer Engineering). Within these constraints in mind, please team up with those who you think will work well with you in a group.

Given the diversity of the class, students should have no problems forming groups. I will need the name of students in each team by the second class period. Each team should read The Wall Street Journal to keep up with the latest on eCommerce businesses.

EXAMINATIONS

Three tests will be given during the semester. Each test will be worth a maximum of 100 points. Each test will consist of a number of short-answer type, problems type, multiple choice, and/or case type questions on the materials covered during that part of the semester for which the test is given. Students will not be tested on any materials that are not covered in the class. In order to do well in the test students will, therefore, need to pay special attention to the materials covered in the class.

No tests will be made up unless arrangements have been made prior to the scheduled time of the test. Even then you must have a very good reason for not taking a test during its scheduled time (going out of town is not a very good reason; I expect you and your employer to arrange out-of-town trips around the scheduled tests). If I can not be contacted prior to the scheduled time, you must contact my departmental secretary at the aforementioned telephone number provided. If for some reason, you cannot do that, ask a friend or a family member to call the secretary for you.

TOPICAL WHITE PAPER

Each team will produce an **in-depth** and **substantive, evidence** and **judgment-based** analysis of one particular issue of eCommerce that will be discussed in the course. The objective of the assignment is to reinforce specific components of eCommerce covered in the course. The possible topics include, among others, eCommerce infrastructure; models and strategies for

eCommerce; web advertising; digital money and electronic payment system; security techniques for eCommerce; and legal, ethical and regulatory environment.

On the second day of the class, each team must choose a topic. The topical paper is due in the beginning of the class on the due date. It is worth 25 points. In addition to the paper, you should prepare an executive briefing. You should prepare a 15 minute power-point presentation to brief the class on your findings.

Please follow the following guidelines in preparing your topical paper.

The paper must be word-processed. It should have one inch margin on all sides. The title of the paper, the team members' name, date, and course number should be printed on the front page.

The paper should be limited to a maximum of 15 double-spaced pages of text plus tables and graphs, if any.

Please proofread the analysis carefully and use a spell-checker on it before turning it in.

You may use supplementary materials to improve your analysis. All supplementary materials, if used, must be referenced in the analysis.

Your grade will be based on readability factors (including grammar, punctuation, organization, and style), in-depthness, completeness, correctness of your analysis, and the power-point presentation..

BUSINESS PLAN

Each team will develop a business plan for their eCommerce startup company that will outline a product or service line, describe how the business will operate, and forecast its profitability. The main objective of the plan is obviously to convince potential venture capitalists that your new company will succeed.

In your plan you should cover the following issues: a discussion of the market niche you have identified that is currently not being served or under-served on the Internet, a mission statement and overall goals of your company; a concise description of your company and how it will address the identified niche; a listing and description of your competitors; an explanation of how your business will meet the market needs within the identified niche; a description of the main product or service idea; competitive advantages of your company; a description of the management and creative team; a delineation of the financing you will need and how will you spend it; and a conclusion.

Based on the quality of the plan, worthiness of the niche delineated in the plan, the quality of the presentation in the class, each team will be assigned a certain amount of virtual money by a virtual venture capitalist (your professor). The team will use this money to set up their virtual storefront. The business plan will be worth 20 points. All team members in a team will receive the same grade.

You may consult some of the following web sites before writing your business plan:

<http://www.bplans.com/dp/>

Businesstown.com. (1999). Creating Your Business Plan
<http://www.businesstown.com/planning/creating-plan.asp>

Business Planware. (1999). White Paper _ Writing a Business Plan
<http://www.planware.org/bizplan.htm>

CCH Incorporated. (2000). Planning your business
http://www.toolkit.cch.com/text/p02_0001.asp

inc.com (1999). Writing a business plan
<http://www.inc.com/>

E-COMMERCE PROJECT

In this project, each team's basic task is to design, develop, implement, and operate an eCommerce site that is competitively positioned to take advantage of the market niche identified in your business plan. This will involve prototyping and testing the site. The site should allow browsing and handling of transactions. Each team will need to save all design prototypes (version1, version2, etc.) in a subdirectory in its store account.

The team will also design content pages such as product or service descriptions and policy pages. Products or services may include anything that your team believe will satisfy the identified market niche.

Each team will develop banner advertisements that would be placed on the front page of their eCommerce site. Teams will pay for renting the store and placing the banners and, of course, for buying products and services from other teams..

The startup companies must have a dynamic website that is linked to a product or service database, a shopping cart facilities, and transaction processing facilities that will allow customers to use either e-cash, or credit cards. Once the startup companies open for business, teams will have to manage their operations, handle customer service, develop additional products and

services, as needed.

Each team will present their project in the class on the day projects are due (see schedules). The project will be worth 130 points. Each will be graded on appearance, ease of use, correct use of links, accuracy of contents, and the thoroughness of coverage of the objectives defined in the business plan, and technical quality of the ColdFusion source codes used to design the web sites. The eCommerce sites may be evaluated by anonymous judges who will rate the sites. Final grade for the project will be based on judges' ratings, if used, TA's ratings, and professor's ratings. All group members in a team will be assigned the same grade.

You may consult the following web sites on the design of commercial web sites.

December, J. (1998). Web Development
<http://www.december.com/web/develop.html>

Erskine, L.E., Carter_Tod, D.R.N. and Burton, J.K. (1997). Dialogical Techniques for the Design of Web Sites Designing for the Web: Reflections and Practices (conference).
http://www.uswest.com/web_conference/proceedings/erskine.html

E_consultant. (1998). Designing your E_Commerce Site for Service Internet.com
http://ecommerce.internet.com/solutions/e_consultant/article/0,1281,9571_195401__1,00.html

Flanders, V. (1997). Web pages that suck.
<http://www.webpagesthatsuck.com/>

Gillespie, G. (2000). Web page design for designers
<http://www.wpdfd.com/wpdhome.htm>

Instone, K. (1999). Usable Web: Guide to Web usability resources
<http://www.usableweb.com>

Microscope. (1999). Best Ads on the Web: Weekly Web Ad Review.
<http://www.microscope.com/>

Morris, C. (1998). Nav 101 WDVl.
<http://WDVL.com/Location/Navigation/101/>

Mulder, S. and Brandt, M. (1999). Sizing Up the Browsers. webmonkey/design/
<http://hotwired.lycos.com/webmonkey/99/41/index3a.html?tw=design>

Nielsen, J. (1996). Top ten mistakes in web design.
<http://www.useit.com/alertbox/9605.html>

Nielsen, J. (1999). "Top Ten Mistakes" Revisited Three Years Later
<http://www.useit.com/alertbox/990502.html>

Nielsen, J. (1998). Web Pages Must Live Forever
<http://www.useit.com/alertbox/981129.html>

Rose, G., Khoo, H., and Straub, D.W. (1999). Current Technological Impediments to Business-to-Consumer Electronic Commerce. Communications of the Association for Information Systems. 1(16), June.
http://www.slis.indiana.edu/hrosenba/www/L561/pdf/rose_ecomm_barriers.pdf

Sherman, G. and Avila, E. (1998). Web Site Process Reengineering
<http://www.techweb.com/wire/story/TWB19990104S0016>

Sun Microsystems. (1997). Sun on the net: Guide to web style. [S]
<http://www.sun.com/styleguide/tables/Welcome.html>

LISTSERVER PARTICIPATION

Listserver participation is worth 15 points. Regular and worthy participation is expected from all groups and will be needed to do well in this part of the course. We will set up a listserver for the course. All students enrolled in the course, a teaching assistant assigned to the course, and the professor will be members of this listserver. An important component of the course is for you to participate at the course listserver. If you have question, post it on the listserver. If you have an answer to a question asked, provide that on the list server. This allows you to learn from each other's experience and get help from and give help to others.

Please acknowledge any sources used in coming up with your contributions by citing them properly. If you have received it from an URL site, enter the URL link for it. All communications must be professional. Any unprofessional comments, including insults, swearing, and flaming will result in dismissal from the course.

CLASS PARTICIPATION AND INDIVIDUAL BEHAVIOR

Class participation will be worth 25 points.

You will be required to answer questions, solve problems, and participate in discussions based on chapters, cases, and outside materials. If you do not voluntarily participate, to help you do well in this part of the course, you will be asked questions and you will need to answer them.

Please read the text materials and go over the assigned questions and exercises at the end of each chapter before the class. This will help you do well in class participation.

To help us all get acquainted as quickly as possible, we will use a seating chart. During the second class period, the seating chart will be distributed and you will be asked to write your name on a seat you wish to seat. Please use the same seat for the remainder of the class. If you wish, you may seat with your team members.

Please do not disrupt the class by unnecessarily talking in the class, walking in late, leaving early, or slamming the door. If you do so, you will receive a failing score in class participation.

OVERALL GRADE

Your overall course grade will be based on the accumulated total of your class participation score, listserver participation score, tests score, topical paper score, eCommerce business plan score, and the eCommerce project score.

At the end of the semester, the 90% and up = A (4.0), 80 to 89% = B (3.0), 70 to 79% = C (2.0), 60 to 69% = D(1.0), and below 60% = F (0.0) grading scale will be used to assign letter grades. However, there will be a review of total points earned at the end of the semester to ensure that students in comparable performance groups receive the same grade.

Upon completion of the course, undergraduate technical students (e.g., CS, CIS, EE, CE) taking the course will be eligible to receive an honors credit for the course. If you are an undergraduate student, please contact the Honors House at 747-5858 and bring the appropriate form to me.

COMMUNICATION WITH PROFESSOR

Given the technical nature of the course and need for hands-on help, we need to adhere to the following protocol in order to ensure that you get the help you need to complete all your assignments on time. We will have a teaching assistant (TA) for the course. As you also know, we will set up a listserver for the course. In addition to all the students in course, the TA and professor will be a member of this list

If you have a technical problem with the eCommerce site, first post the question on the listserver. Students are encouraged to answer each other questions on the listserver.

If you don't get an answer from the students within 48 hours, TA or the professor will answer the question for you.

Any clarification of requirements for an assignment can be done by the professor immediately after the assignment is given.

Any office meetings outside of office hours must be made by appointment.

SOFTWARE OWNERSHIP AND INTELLECTUAL PROPERTY

Since commercially viable eCommerce sites are being designed and developed in the course using expensive and advanced information technology provided by the University of Texas at El Paso, it is only fair for you to let your professor and the intellectual property division of the university know that you have commercial intention in mind. You are therefore required to disclose, as a part of enrolling in this course, any attempts to commercialize or use of an eCommerce site for commercial purposes.

USE OF TECHNOLOGY

In order to design and deploy eCommerce sites, the course requires unrestricted access to expensive and advanced information technology tools in the CALC Lab. It is expected that you will be extremely careful with this technology. It is extremely important that you respect the security levels provided to you and act responsibly within these bounds. Any attempts to break into the server or bring down the server will result in immediate dismissal from the course. Any attempts to electronically impersonate other students or groups in order to take codes from them will also result in immediate dismissal from the course.

ASSIGNMENTS

Dates	Text Readings (Chapters)	Problems
Aug 25	Introduction and class Orientation Introduction to Electronic Commerce (Chapter 1)	R 1.1-1.6 Case 1
Sept. 1	Teams are formed. Start working on a business plan Technology Infrastructure: The Internet and the World Wide Web (Chapter 2) The Internet and Electronic Commerce (Outside materials) Intranets, Extranets, and Enterprise Collaboration (Outside materials)	R 2.1, 2.2, 2.5 E 2.1, 2.3
Sept. 8	Selling on the Web: Revenue Models and Building a Web Presence (Chapter 3)	R 3.2, 3.3, 3.4 E 3.2, 3.3

- Sept. 15** **Business Plans for the proposed Internet startup companies are due**
Powerpoint presentations of Business Plans in the class room are due
- Topical paper topics are due.**
- Marketing on the Web R 4.1, 4.2, 4.3, 4.5
(Chapter 4) Case 4.1, Q 1, 3, 4
- Sept. 22** **Examination 1 based on Chapters 1,2, 3, 4, and any outside materials covered during this part of the semester**
- Sept. 29** **Topical papers are assigned**
Return Examination 1
Business-to-Business Strategies: From Electronic
Data Interchange to Electronic Commerce R 5.1, 5.2, 5.4
(Chapter 5) Case 5.1, Q 1 and 2
- Dream Weaver/ColdFusion Presentation in the CALC Lab**
Start working on the proposed eCommerce startup company
- Oct. 6** Online Auctions, Virtual Communities, and Web Portals R 6.1, 6.2, 6.3, 6.4
(Chapter 6) E 6.1 and 6.2
- Dream Weaver/ColdFusion Presentation in the CALC Lab**
- Oct. 13** Topical papers are due
Topical paper presentations are done
- The Environment of Electronic Commerce: International R 7.1, 7.2, 7.3, 7.4,
Legal, Ethical, and Tax Issues (Chapter 7) E 7.2 and 7.3
- Oct. 20** Web Server Hardware and Software R 8.2, 8.4, 8.5
(Chapter 8) E 8.1, 8.3
- Dream Weaver/ColdFusion Presentation in the CALC Lab**
- Oct 27** **Examination 2 based on Chapters 5, 6, 7, 8 and any outside materials covered during this part of the semester**
- Nov. 3** **A status report on the eCommerce Web site is due**

Return Examination 2

	Electronic Commerce Software (Chapter 9)	R 9.2, 9.3, 9.5 E 9.3
Nov. 10	Electronic Commerce Security (Chapter 10)	R 10.1, 10.2, and 10.3 Case Q 1 and 3
Nov. 17	Payment Systems for Electronic Commerce (Chapter 11)	R 11.1, 11.3, 11.4 E 11.2
Nov. 24	Planning for Electronic Commerce (Chapter 12)	R 12.1, 12.2, 12.3, 12. Case Q 1
Dec. 1	Demonstration and evaluation of ECommerce Websites	
Dec. 8	Final Examination (7:00-9:45 p.m) based on Chapters 9, 10, 11, and 12 and any outside materials covered during this part of the semester.	

SCHOLASTIC DISHONESTY

"The University of Texas at El Paso prides itself on its standards of academic excellence. In all matters of intellectual pursuit, UTEP faculty and students must strive to achieve based on the quality of the work produced by the individual. In the classroom and in all other academic activities, students are expected to uphold the highest standards of academic integrity. Any form of scholastic dishonesty is an affront to the pursuit of knowledge and jeopardizes the quality of the degree awarded to all graduates of UTEP."

"Any student who commits an act of scholastic dishonesty is subject to discipline. Scholastic dishonesty includes, but is not limited to cheating, plagiarism, collusion, the submission for credit of any work or materials that are attributable in whole or in part to another person, taking an examination for another person, any act designed to give unfair advantage to a student or the attempt to commit such acts. Proven violations of the detailed regulations, as printed in the Handbook of Operating Procedures (HOP) and available in the Office of the Dean of Students, may result in sanctions ranging from disciplinary probation, to failing grades on the work in question, to failing grades in the course, to suspension or dismissal, among others."