eCommerce Programming

COSC 3331

Fall 2021

Course Description

Prerequisite COSC 1337. The course deals with the technical aspects of e-commerce. Students will learn to design, build, and maintain a complete e-commerce website. Topics include: e-commerce modeling, designing, and implementing a website that meets user requirements, maintaining and setting up web servers, multi-tiered web architecture, database servers, accessing remote databases, shopping cart fundamentals, commerce server, advertising on the web, e-cash and electronic payments, and Internet security and encryption. Students will build their own projects.

Class Time

Tues/Thurs 2:00pm – 3:20pm COB 211

Instructor Information

Dr. Robert P. Schumaker
Professor, Computer Science Dept.
rschumaker@uttyler.edu

Office Hours

DM through Slack (preferred), Zoom, email

If your inquiry is grade-related, please make a Zoom or physical appointment.

No appointment needed for Tuesdays and Thursdays 9:30am – 11:00am in COB 315.05

Textbook Information

Coursepack: https://hbsp.harvard.edu/import/825798

Course Objective

This course is designed to provide an understanding of eBusiness and the functions of such in a global environment by:

- Understanding the various eCommerce processes and models
- Awareness of global, social, legal and ethical issues
- Software, hardware, security, privacy and emerging trends in eBusiness
- Understanding of the technology infrastructure
- The necessary components of eCommerce
- Planning, analysis and implementation for an eCommerce business

This course draws upon and refines skills in:

- Computer skills
- Written and oral discussion and individual and team work
- Ethical implications of being a member of the business community

During this course the student will develop an understanding of:

- eCommerce types and business models
- The Internet, World Wide Web, construction of an eCommerce website, online security issues and payment systems
- eCommerce marketing, ethical, social and political issues
- Real world examples of business to consumer and business to business eCommerce
- Case studies that illustrate eCommerce concepts and issues

Computer Account Access

Students will need a Patriot account and password for computer access. This information can be found at http://www.uttyler.edu/ccs

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Course Documents and Slides

This class will use Canvas for course documents, slides and other class-related materials. Students are encouraged to check the website frequently during the course of the semester to keep up to date about course changes.

Course Grading

Course evaluation will be based on the following:

Case Discussion (5 @ 5 points each)	25
Homeworks (2 @ 5 points each)	10
Business Simulation	15
Final Project	35
Lifelong Learning	5
Class Participation	10
Total Points	100

Grading Scale

A	90.0 points or more
B	80.0 to 89.999 points
C	70.0 to 79.999 points
D	60.0 to 69.999 points
F	59.999 points or less

Course Policies

1. Extracurricular Course Costs – There may be additional costs relating to the use of cloud computing services. Additional information will be provided in class.

2. Case Discussion – Throughout the semester we will analyze business technology cases through Canvas. Students will post their discussion questions and answer others. More details will be provided in Canvas.

3. Homeworks – Homework exercises will be assigned during the semester to assist student practice with eCommerce technologies and measure student mastery.

4. Business Simulation – Students will work in teams in a business simulation to gain practical problem solving experience in a dynamic business environment. Grades will be commensurate with the relative value a team's decisions made on increasing shareholder value.

5. Final Project – Students will work in teams to build a comprehensive website solution. More details will be provided in class.

6. Lifelong Learning – It is imperative for successful individuals to continue learning throughout their lifetime. Professional organizations are a wonderful opportunity to reinvent, retool and build connections with industry leaders. Students that attend a professional technology organization meeting (and bring proof of attendance) will receive credit. Upcoming meetings and events can be found on Canvas.

7. Class Participation – Class Participation points will be scored by the quantity of quality discussion a student contributes regarding relevant technology-related articles. The maximum points that can be earned is ten.

8. Missed Classes, Tests/Quizzes and Assignments – Students who miss class are responsible for getting missed materials and lecture information on their own time from their peers. Any

tests/quizzes and/or assignments due during the student's documented absence will be due by 5pm of the day of their return with no penalty.

9. Time Outside of Class: This course is a computer application course that requires students to complete computer application exercises and projects**.** It is the responsibility of the student to make a **backup** of all assignments or application projects. *If your work is not saved and accessible by the instructor, then it cannot be evaluated and a grade of F will be given for that particular project or assignment.* BACKUPS of projects and tests are imperative in order to avoid lost or damaged data.

10. Classroom Lab Rules
    - Please do not surf the Web during class unless instructed to access the Internet.
    - Do not access inappropriate Web sites during class. This will lead to dismissal from the class.
    - Please do not work on other computer assignments during class.
    - Please do not talk to your neighbor during class.
    - Please do not bring food or an uncovered drink into the computer classroom lab.
    - Please do not order food to be delivered to the classroom.
    - Do not use your phone during class.

11. Meow. If you send the Instructor a DM through Slack of a lolcat before Sept 3 at 5pm, you will receive a bonus point. Keep this to yourself and do not share it with classmates.

12. The Harvard CS50 Regret Clause – If you commit some act that is not reasonable but bring it to the attention of the course's heads within 72 hours, the course may impose local sanctions that may include an unsatisfactory or failing grade for work submitted, but the course will not refer the matter for further disciplinary action except in cases of repeated acts. Below are rules of thumb that (inexhaustively) characterize acts that the course considers reasonable and not reasonable. If in doubt as to whether some act is reasonable, do not commit it until you solicit and receive approval in writing from the course's heads. Acts considered not reasonable by the course are handled harshly. If the course refers some matter for disciplinary action and the outcome is punitive, the course reserves the right to impose local sanctions on top of that outcome that may include an unsatisfactory or failing grade for work submitted or for the course itself. The course ordinarily recommends exclusion (i.e., required withdrawal) from the course itself.

Reasonable

- Communicating with classmates about problem sets' problems in English (or some other spoken language), and properly citing those discussions.
- Discussing the course's material with others in order to understand it better.
- Helping a classmate identify a bug in their code at office hours, elsewhere, or even online, as by viewing, compiling, or running their code after you have submitted that portion of the pset yourself. Add a citation to your own code of the help you provided and resubmit.
- Incorporating a few lines of code that you find online or elsewhere into your own code, provided that those lines are not themselves solutions to assigned problems and that you cite the lines' origins.
- Reviewing past semesters' tests and quizzes and solutions thereto.
- Sending or showing code that you've written to someone, possibly a classmate, so that they might help you identify and fix a bug.
- Submitting the same or similar work to this course that you have submitted previously to this course.
- Turning to the course's heads for help or receiving help from the course's heads during the quizzes or test.
- Turning to the web or elsewhere for instruction beyond the course's own, for references, and for solutions to technical difficulties, but not for outright solutions to problem set's problems or your own final project.
- Whiteboarding solutions to problem sets with others using diagrams or pseudocode but not actual code.
- Working with (and even paying) a tutor to help you with the course, provided the tutor does not do your work for you.

Not Reasonable

- Accessing a solution to some problem prior to (re-)submitting your own.
- Accessing or attempting to access, without permission, an account not your own.
- Asking a classmate to see their solution to a problem set's problem before (re-)submitting your own.
- Discovering but failing to disclose to the course's heads bugs in the course's software that affect scores.
- Decompiling, deobfuscating, or disassembling the staff's solutions to problem sets.
- Failing to cite (as with comments) the origins of code or techniques that you discover outside of the course's own lessons and integrate into your own work, even while respecting this policy's other constraints.
- Giving or showing to a classmate a solution to a problem set's problem when it is they, and not you, who is struggling to solve it.
- Looking at another individual's work during the quizzes or test.
- Manipulating or attempting to manipulate scores artificially, as by exploiting bugs or formulas in the course's software.
- Paying or offering to pay an individual for work that you may submit as (part of) your own.
- Providing or making available solutions to problem sets to individuals who might take this course in the future.
- Searching for or soliciting outright solutions to problem sets online or elsewhere.
- Splitting a problem set's workload with another individual and combining your work.
- Submitting (after possibly modifying) the work of another individual beyond the few lines allowed herein.
- Submitting the same or similar work to this course that you have submitted or will submit to another.
- Submitting work to this course that you intend to use outside of the course (e.g., for a job) without prior approval from the course's heads.

- Turning to humans (besides the course's heads) for help or receiving help from humans (besides the course's heads) during the quizzes or test.
- Viewing another's solution to a problem set's problem and basing your own solution on it.

Tentative Course Schedule and Assignments:

Scheduled dates may vary depending on the pace of the class.

Date	Concept	Assignment Due	Simulation
Aug 24	Introduction to eCommerce		
Aug 26	What is eCommerce		
Aug 31	Networking and the Internet		
Sep 2	Project Work Day	Case – Alibaba	
Sep 7	Stacks and Protocols		
Sep 9	From Idea to Online		
Sep 14	HTML Basics		
Sep 16	HTML Layouts		
Sep 21	Project Work Day		
Sep 23	Project Work Day	Case – CDK Digital	
Sep 28	Multiple Websites	Homework I	
Sep 30	Cloud Computing Theory		Simulation – Round 1
Oct 5	Cloud Computing with AWS		
Oct 7	Cloud Computing with AWS		Simulation – Round 2
Oct 12	WordPress Introduction	Case – Tech Talk	
Oct 14	WordPress Themes		Simulation – Round 3
Oct 19	WordPress Plugins		
Oct 21	WordPress and Social Media		Simulation – Round 4
Oct 26	WordPress and Web Analytics	Case – Angie's List	
Oct 28	WordPress and eCommerce		Simulation – Round 5
Nov 2	WordPress and eCommerce		
Nov 4	Project Work Day		Simulation – Round 6
Nov 9	Project Work Day	Case – BigBasket	
Nov 11	Programming and Php	Homework II	Simulation – Round 7
Nov 16	Programming and Php		
Nov 18	Presentations		
Nov 23	No Classes – Thanksgiving		
Nov 25	No Classes – Thanksgiving		
Nov 30	Project Work Day		
Dec 2	Project Work Day		