Class Hours: 3.0          Credit Hours: 3.0
Laboratory Hours: 0.0    Revised: Spring 2011

Note: This course is not designed for transfer credit.

Catalog Course Description:

This course teaches students how to conduct business online and how to manage the technological issues associated with constructing an electronic-commerce Website. Students will study how implementing technology can engage cardholders, merchants, issuers, payment gateways and other parties in electronic transactions.

Entry Level Standards:

Students taking this course should be proficient in Windows XP, Vista, or 7 and/or Mac OS X.

Prerequisites:

WEB 2010

Textbook(s) and Other Course Materials:

Required Textbook:

E-Commerce Strategies and Practices: Academic Student Guide
Publisher: ComputerPREP, Official CIW Curriculum
Product code: ECL05CDECSPPL809
ISBN: 1593026277
Version 5.1 ©2008

Supplementary Materials:
- Free open source software (FOSS)
- Subscription to Lynda.com online instructional video training

I. Week/Unit/Topic Basis:

<table>
<thead>
<tr>
<th>Week</th>
<th>Topic</th>
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| 1    | Lesson 1: Electronic Commerce Foundations  
|      | HTML & CSS design & development skills     |
| 2    | Lesson 2: Law and the Internet            
|      | Lesson 3: Web Marketing Goals             |
| 3    | Lesson 4: Online Product Promotion        
|      | Lesson 5: Site Usability                  |
II. Course Goals:

The course will:

A. Define e-commerce and discuss its trends and statistics. (I)
B. Explain the legal aspects of e-commerce, including jurisdiction, copyright, and patents. (I)
C. Identify and describe e-commerce marketing goals.(I)
D. Explain usability and discuss the factors that affect it. (I)
E. Define e-services and formulate an e-service action plan. (III,VI)
F. Explain Electronic Data Interchange (EDI) and its role in e-commerce. (I)
G. Define e-business and the role it plays in current business.(II,VI)
H. Explain interoffice resources for increased productivity and cost reduction. (V,VI)
I. Distinguish between e-commerce software options and weigh their advantages and disadvantages. (I)
J. Install and customize an e-commerce site with a product catalog using software applications. (I,II,III,IV,V,VI)
K. Install and verify a payment gateway for transaction processing. (IV,V,VI)
L. Administer payment transactions for the batching process.(IV,V,VI)
M. Identify major components of e-commerce security. (IV, V, VI)
N. Generate a certificate request for a trusted third-party certificate authority. (IV, VIV)
O. Install a server certificate. (IV)
P. Develop a fully transaction-enabled e-commerce web site. (I, II, III, IV, V, VI)

* Roman numerals after course objectives reference goals of the Web Technology program.

**III. Expected Student Learning Outcomes***:

The student will be able to:

1. Define electronic commerce (e-commerce) and discuss electronic commerce trends and statistics. (A)
2. Explain the difference between business-to-consumer and business-to-business e-commerce. (A)
3. Weigh the advantages and disadvantages of using e-commerce over traditional sales methods. (A)
4. Assess the initial considerations of launching an electronic commerce web site, including hardware, software, bandwidth, in-house hosting, and outsourcing. (A)
5. Discuss different archetypes for generating revenue on the Internet. (E)
6. Explain three models for collecting payments on the Internet. (C)
7. Discuss security issues. (B)
8. Explain legal aspects of e-commerce. (B)
9. Identify Internet issues that may present legal challenges. (B)
10. Discuss how legal issues such as jurisdiction, copyright, and patents apply to software. (A, B)
11. Identify what constitutes intellectual property and how to protect it. (A, B)
12. Identify the current taxation issues facing Internet commerce. (A)
13. Identify and define e-commerce marketing goals. (E)
14. Describe online marketing strategies. (E)
15. Discuss the drivers and barriers to growth. (E)
16. Discuss the advantages and disadvantages of hard goods and soft goods. (E)
17. Explain product distribution factors and methods dealing with cost and distance. (E)
18. Compare global product appeal to niche product appeal. (E)
19. Identify Internet demographics and their relevance. (E)
20. Explain product/service awareness methods used by online marketers. (E)
21. Use banner ads effectively. (E,G)  
22. Discuss exchange networks and referrer programs. (E,G)  
23. Select among search engine placement options. (E,G)  
24. Choose appropriate email marketing options. (E,G)  
25. Explain the importance of usability. (D)  
26. Discuss factors affecting usability. (D)  
27. Explain click patterns. (D)  
28. Clarify the concept of screen flow. (D)  
29. Analyze usability results. (D)  
30. Define e-services. (E,F,G,H)  
31. Define Customer Relationship Management (CRM). (E,F,G,H)  
32. Define synchronous and asynchronous e-services. (E,F,G,H)  
33. Formulate a CRM action plan. (E,F,G,H)  
34. Develop customer surveys. (E,F,G,H)  
35. Explain Electronic Data Interchange (EDI), Open Buying on the Internet (OBI), and Open Trading Protocol. (B,C)  
37. Explain vertical and horizontal markets. (A,B,C)  
38. Identify inter-office productivity resources. (A,B,C)  
39. Distinguish among the online instant storefront options for creating an electronic commerce site. (G,H,I)  
40. Explain the advantages and disadvantages of online instant storefronts, including packages for creating and managing electronic commerce storefronts. (G,H,I)  
41. Create an online instant storefront using Earthstores.com and ShopFactory. (G,H,I)  
42. Evaluate the administrative merits of online electronic commerce packages. (G,H,I)  
43. Evaluate the issues involved in choosing web server software. (H)  
44. Examine the Microsoft Internet Information Server (IIS) configuration. (H)  
45. Create a virtual directory and a virtual server. (H)  
46. Bind multiple IP addresses. (H)  
47. Discuss the issues in choosing web site development software. (H)
48. Examine database needs and requirements. (H)
49. Examine the development software setup and configuration. (H)
50. Unpack a Solution Site for Commerce Server. (G, H, I)
51. Create a foundation for your e-commerce site. (G, H, I)
52. Examine the Commerce Server Business Desk. (G, H, I)
53. Customize default pages. (G, H, I)
54. Explain the concepts of catalog design. (E, F, G)
55. Explain the components of an online catalog. (E, F, G)
56. Demonstrate how new categories, products, and properties are added to an online catalog. (E, F, G)
57. Define shipping and taxation requirements. (E, F, G)
58. Integrate an online catalog with the existing site that was developed. (E, F, G)
59. Explain the issues involved in choosing a payment method. (G, I)
60. Install a payment gateway. (G, I)
61. Enable the site you created to accept credit cards. (G, I)
62. Access online transaction information. (G, I)
63. Manually process credit card transactions. (G, I)
64. Describe the function of a knowledge base. (H)
65. Install, populate, administer, and integrate a knowledge base. (H)
66. Identify encryption schemes such as symmetric, asymmetric, and one way. (C)
67. Identify the benefits provided by security implementation such as hashing, message digests, and digital signatures. (C)
68. Explain the certificate-related infrastructure. (C)
69. Outline the consideration of a secure transaction. (C)
70. Request a digital certificate from VeriSign. (C)
71. Create a digital certificate from Microsoft Certificate Server. (C)
72. Install server digital certificates. (C)
73. Examine the current Secure Sockets Layer (SSL) procedure. (C)
74. Secure the ordering pages of the site you created. (C)
75. Examine the implementation of the Secure Electronic Transactions (SET). (C)
76. Manage the issues and tools used to run your e-commerce web site. (G,H,I)
77. Explain the tools and methods used to test your site for traffic. (G,H,I)
78. Identify the need for server monitoring and optimization. (G,H,I)
79. Identify site strengths and weaknesses. (G,H,I)

* Capital letters after Expected Student Learning Outcomes reference the course goals listed above.

IV. Evaluation:

A. Testing Procedures:

   35 percent of grade. Students will be given a series of cumulative theory exams during the semester and a final exam over course content at the end of the semester.

B. Laboratory Expectations:

   N/A

C. Field Work:

   N/A

D. Other Evaluation Methods:

   - Projects/Assignments: 50 percent of grade. The projects and/or assignments will be uploaded to the web server space.
   - Online Communication Tools: 15 percent of grade. Students will use email and course discussion board to communicate with the instructor and with each other.

E. Grading Scale:

   A  90-100%
   B+ 85-89%
   B  80-84%
   C+ 75-79%
   C  70-74%
   D  60-69%
   F  0-59%

V. Policies:

A. Attendance Policy:

   Pellissippi State expects students to attend all scheduled instructional activities. As a minimum, students in all courses (excluding distance learning courses) must be present for at least 75 percent of their scheduled class and laboratory meetings in order to receive credit for the course. Individual departments/programs/disciplines, with the approval of the vice president of the Learning Division, may have requirements that are more stringent. In very specific circumstances, an appeal of the policy may be addressed to the head of the department in which the course was taken. If further action is warranted, the appeal may be addressed to the vice president of the Learning Division.

B. Academic Misconduct:
Academic misconduct committed either directly or indirectly by an individual or group is subject to disciplinary action. Prohibited activities include but are not limited to the following practices:

- Cheating, including but not limited to unauthorized assistance from material, people, or devices when taking a test, quiz, or examination; writing papers or reports; solving problems; or completing academic assignments.
- Plagiarism, including but not limited to paraphrasing, summarizing, or directly quoting published or unpublished work of another person, including online or computerized services, without proper documentation of the original source.
- Purchasing or otherwise obtaining prewritten essays, research papers, or materials prepared by another person or agency that sells term papers or other academic materials to be presented as one’s own work.
- Taking an exam for another student.
- Providing others with information and/or answers regarding exams, quizzes, homework or other classroom assignments unless explicitly authorized by the instructor.
- Any of the above occurring within the Web or distance learning environment.

C. Accommodations for Disabilities:

Students who need accommodations because of a disability, have emergency medical information to share, or need special arrangements in case the building must be evacuated should inform the instructor immediately, privately after class or in her or his office. Students must present a current accommodation plan from a staff member in Services for Students with Disabilities (SSWD) in order to receive accommodations in this course. Services for Students with Disabilities may be contacted by going to Goins 127, 132, 134, 135, 131 or by phone: 539-7153 or TTY 694-6429. More information is available at www.pstcc.edu/departments/swd/.

D. Other Policies:

Facilities: Students must have a valid Pellissippi ID to be presented on demand to gain access to Pellissippi facilities.

Hardware/Software Requirements for this Course

**IBM-type criteria:**

**Hardware:**

- Intel® Pentium® 4, Intel Centrino®, Intel Xeon®, or Intel Core™ Duo (or compatible) processor
- Microsoft® Windows® XP with Service Pack 2 or Windows Vista™ Home Premium, Business, Ultimate, or Enterprise (certified for 32-bit editions)
- 1GB of RAM
- 3GB of available hard-disk space (additional free space required during installation)
- 1.024x768 monitor resolution with 16-bit video card
- DVD-ROM drive
- Broadband Internet connection required

**Software:**

- Internet browser (e.g. Internet Explorer, Mozilla Firefox, Opera, Safari)
- Adobe Shockwave and Flash players
- Adobe Reader 6.0+ (PDF v1.5 support)
- QuickTime 7.1.2 software required for multimedia features, lynda.com movies
Macintosh criteria:

Hardware:
- PowerPC® G4 or G5 or multicore Intel® processor
- Mac OS X v10.4.8-10.5 (Leopard)
- Java™ Runtime Environment 1.5 required for Adobe Version Cue® CS3 Server
- 1GB of RAM
- 4.5GB of available hard-disk space (additional free space required during installation)
- 1,024x768 monitor resolution with 16-bit video card
- DVD-ROM drive
- Broadband Internet connection required

Software:
- Internet browser (e.g. Apple Safari, Google Chrome)
- Adobe Shockwave and Flash players
- Adobe Reader 6.0+ (PDF v1.5 support)
- QuickTime 7.1.2 software required for multimedia features, lynda.com movies

CD-ROM. CIW courseware includes a supplemental CD-ROM with files that are referenced and used in the course. The labs will refer you to the CD and you will access these and use the files in the course. The contents of the CD-ROM must be copied to the computer desktop for the files to be modified as directed in the labs.

Internet access is required for full implementation of the courseware