

Common Course Outline
EBUS 102
EXPLORING E-BUSINESS TECHNOLOGIES
3 Semester Hours

The Community College of Baltimore County

Description

This online course will provide a broad introduction to e-business technologies. Students explore the hardware/software tools and the key technologies used by companies engaging in e-business activities. Students become familiar with infrastructure requirements needed to do business on the web; web-based tools used in e-business activities; electronic commerce software in use today; security issues faced by online businesses; electronic payment systems; strategies used for web auctions and virtual communities; and the legal, ethical, international, and tax issues that impact an online business are covered.

Prerequisites: ENGL 051 or LVE 1, RDNG 051 or LVR 1. Co-requisite: CINS 101 or consent of the program director

Overall Course Objectives

Upon completion of this course the student should be able to:

1. Describe the roles of technical personnel involved in e-business;
2. Describe the general structure of the networks supporting the Internet and electronic business;
3. Explain the protocols that are used to support e-business activities;
4. Describe the utility programs used to trace, locate, and verify the status of Internet host sites;
5. Describe the history and use of markup languages;
6. Explain the role of client and server architectures in electronic business;
7. Define the terms Internet, intranet, and extranet;
8. Compare the advantages and disadvantages of each of the current options for connecting to the Internet;
9. Identify the appropriate hardware and software for a variety of business situations (small, medium, large) to develop an integrated e-business system;
10. Locate online information for current web server software;
11. List the hardware requirements of typical web server packages;
12. Describe the types of computers that support web servers;
13. Outline the basic duties of a web server;
14. Identify the typical features of current web server software;
15. Identify web specific programming languages and their functions;

16. Describe the basic functions expected in an electronic business software package;
17. List the characteristics to look for in an ASP-hosted e-business solution;
18. Identify the types of store models used in traditional and e-business stores;
19. Locate software packages available for small, medium, and large e-business sites;
20. Select an appropriate software solution for a given situation;
21. List the security measures that can reduce or eliminate intellectual property theft;
22. Describe strategies to secure client computers from virus attacks, program attacks, and script attacks;
23. Describe how to authenticate users to servers;
24. Describe the methods available to secure information being sent between a client and a server;
25. List methods to secure message integrity;
26. Describe how to allow commerce servers to authenticate users;
27. Explain how firewalls protect intranets and corporate servers from Internet attacks;
28. Describe how the Secure Socket Layer, Secure HTTP, and secure electronic transaction protocols protect e-business transactions;
29. Define terms used when discussing e-business security issues;
30. List the parts of a security program;
31. Describe the roles of copyright and intellectual property in e-business;
32. Identify the threats to client machines, web servers, and commerce servers;
33. Describe the ways in which security protocols help protect electronic transactions;
34. Explain the roles that encryption and certificates play in assurance and secrecy;
35. List the difference payment methods that can be used for electronic purchases;
36. Describe the role of electronic cash;
37. Describe how an electronic wallet works;
38. Describe the role of smart cards in electronic transactions;
39. Explain how credit/debit card transactions are processed;
40. Describe the role of SSL and SET in e-business transactions;
41. List the advantages and disadvantages of each of the current electronic payment systems;
42. Identify techniques to establish an effective business presence on the Web;
43. Describe business strategies that are used to promote a Web site;
44. Explain how to conduct usability testing of a Web site and use the information to improve a Web site;
45. Describe how to identify the Web site target audience and use that information to insure that their needs are being met;
46. Explain how to measure the effectiveness of Web site advertising;
47. Define site branding;
48. Differentiate between the types of branding and the advantages and disadvantages of each;
49. Compare the business models that are used today for selling on the Web;
50. Identify the strategies that businesses use to improve purchasing, logistics, and other support activities;
51. Define electronic data interchange (EDI);
52. Explain how EDI works and how businesses are moving it to the Internet;

53. Determine how businesses are using the Internet and Web technologies to improve supply chain management;
54. Describe the software packages that companies are using to implement business-to-business electronic commerce and supply chain management;
55. Define the terms web auction, virtual community, and Web portal;
56. List the key characteristics of the major types of auctions;
57. Describe the strategies used for general and specific consumer Web auction sites;
58. Describe the strategies being used by businesses for business-to-business auction sites;
59. Explain how businesses are using virtual communities to increase brand awareness and sales;
60. Access web auctions, virtual community and web portals;
61. Describe the issues that must be faced when participating in global e-business;
62. Identify the laws that govern electronic commerce activities;
63. Describe the ethical issues involved in e-business;
64. List the taxation issues involved in e-business;
65. Describe how to plan an electronic commerce project;
66. Identify the stages in the development of an e-business Web site;
67. Describe how companies decide which electronic business project elements to outsource;
68. Explain the criteria used when making Web hosting decisions; and,
69. Define the terms outsourcing, incubators, and fast venturing.

Major Topics

1. Introduction
 - What is Ecommerce?
 - The Internet and WWW
 - Economic Forces Impacting Ecommerce
2. Infrastructure
 - Technology Overview
 - Packet-Switched Networks
 - Markup Languages
 - Web Clients and Servers
 - Internet, Intranets, and Extranets
 - Connectivity Options
3. Web Server Decisions
 - Hardware
 - Software
 - Hosting
4. Electronic Commerce Software
 - Determining Needs
 - Possible Solutions
 - Basic Packages
 - Midrange Packages
 - Enterprise Packages

5. Security Threats
 - Security Overview
 - Intellectual Property Threats
 - Client/Server/Communications Threats
 - CERT
6. Security Solutions
 - Protecting Assets
 - Protecting Intellectual Property and Privacy
 - Protecting Client/Server/Communications Channels
7. Electronic Payment Systems
 - Electronic Cash
 - Electronic Wallets
 - Stored-Value Cards
 - Credit and Charge Cards
8. Web Presence
 - Web Usability
 - Navigation
9. Purchase and Support Activities
 - Electronic Data Interchange
 - Software for Purchasing, Logistics, and Support Activities
10. Web Auctions, Virtual Communities, and Web Portals
11. International, Legal, Ethical, and Tax Issues
12. Resource and Implementation Issues

Course Requirements

(approx. 25% each)

- Site Exploration Reports
- Online Quizzes
- Discussion Participation
- Final Exam

Other Course Information

This course is taught on-line.