

**Florida Department of Education
Student Performance Standards**

Course Title: Introduction to E-Commerce
Course Number: 8200340
Course Credit: 1

Course Description:

This course is designed to provide an introduction to Electronic-Commerce (E-Commerce). This course covers topics such as history and evolution of e-commerce; e-commerce business models; impact of e-commerce in the world economy; security and tax issues in e-commerce; and e-commerce web site design, development and maintenance.

CTE Standards and Benchmarks	FS-M/LA	NGSSS-Sci
28.0 Demonstrate language arts knowledge and skills – the student will be able to:		
28.01 Locate, comprehend and evaluate key elements of oral and written information.		
28.02 Draft, revise, and edit written documents using correct grammar, punctuation and vocabulary.		
28.03 Present information formally and informally for specific purposes and audiences.		
29.0 Demonstrate mathematics knowledge and skills – the student will be able to:		
29.01 Demonstrate knowledge of arithmetic operations.		
29.02 Analyze and apply data and measurements to solve problems and interpret documents.		
29.03 Construct charts/tables/graphs using functions and data.		
30.0 Use oral and written communication skills in creating, expressing and interpreting information and ideas – the student will be able to:		
30.01 Select and employ appropriate communication concepts and strategies to enhance oral and written communication in the workplace.		
30.02 Locate, organize and reference written information from various sources.		
30.03 Design, develop and deliver formal and informal presentations using appropriate media to engage and inform diverse audiences.		
30.04 Interpret verbal and nonverbal cues/behaviors that enhance communication.		
30.05 Apply active listening skills to obtain and clarify information.		

CTE Standards and Benchmarks	FS-M/LA	NGSSS-Sci
30.06 Develop and interpret tables and charts to support written and oral communications.		
30.07 Exhibit public relations skills that aid in achieving customer satisfaction.		
31.0 Demonstrate knowledge of the internet to enhance workplace performance -- the student will be able to:		SC.912.17.11
31.01 Explain the history of the Internet and development of e-commerce.		
31.02 Discuss the social, economic, and political impact of the Internet on society.		
31.03 Identify accepted Internet etiquette (i.e., netiquette).		
31.04 Identify and describe Web terminology.		
31.05 Identify the differences between the Internet, Intranet and WWW.		
31.06 Describe and demonstrate the use of the different methods by which information may be accessed on the Internet/Intranet (browser, FTP, gopher, telnet, server).		
31.07 Explain the main elements of Web Browsers (example: status bar, refresher button, toolbar tabs, scroll bars, location field, title bar, bookmarks).		
31.08 Copy information from the Internet/Intranet, save, and print using a Web browser.		
31.09 Identify and use search engines to locate information.		
31.10 Define Web robot/bot/spider and identify its advantages.		
31.11 Explain the difference between a search engine and a web directory.		
32.0 Demonstrate knowledge of e-commerce principles -- the student will be able to:		SC.912.L.17.1
32.01 Define Electronic Commerce (e-commerce).		
32.02 Explain domain name and why it is important to e-commerce sites.		
32.03 Identify and describe the difference between 'brick-and-mortar' and 'click-and-mortar' businesses.		
32.04 Describe business-to-business e-commerce.		
32.05 Describe business-to-consumer e-commerce.		
32.06 Define the scope of business-to-consumer e-commerce.		
32.07 Identify the components of a successful business-to-consumer e-commerce site.		

CTE Standards and Benchmarks		FS-M/LA	NGSSS-Sci
32.08	Identify and discuss issues associated with business-to-consumer e-commerce.		
32.09	Describe the difference between e-tailing and wholesaling.		
32.10	Explain how e-commerce is similar to and/or different from traditional commerce.		
32.11	Identify types of businesses most likely to succeed online.		
33.0	Develop an awareness of career opportunities and options in e-commerce and the criteria for entering those fields -- the student will be able to:		
33.01	Identify entry-level positions in e-commerce.		
33.02	Identify education, skills, and training requirements for possible career pathways in e-commerce.		
33.03	Identify present and future employment opportunities.		
33.04	Compare salary ranges and benefit packages.		
33.05	Design a personal career ladder in e-commerce with a time-line for career advancement.		
33.06	Identify professional organizations in the area of e-commerce.		
33.07	Define the role of a webmaster.		
33.08	Identify job titles and describe the job functions of a web development team.		
34.0	Perform e-mail activities -- the student will be able to:		
34.01	Describe e-mail capabilities and functions.		
34.02	Explain how to setup an e-mail address.		
34.03	Explain the rules for using e-mail on the Internet.		
34.04	Describe the issues involved in sending and receiving documents as e-mail attachments.		
34.05	Use the Internet to perform e-mail activities.		
34.06	Utilize all applicable e-mail options and functions (forward, reply, attach, address book).		
34.07	Organize and manage e-mail messages.		
34.08	Explain some abbreviations, acronyms and emoticons used in e-mail.		

CTE Standards and Benchmarks	FS-M/LA	NGSSS-Sci
34.09 Explain the purpose of an e-mail signature and how to create one.		
35.0 Identify the challenges and issues associated with e-commerce business models -- the student will be able to:		SC.912.N.3.5; SC.912.N.1.1
35.01 Explain the scope of e-commerce and how it relates to business operations.		
35.02 Explain how the self-serve economy impacts e-commerce.		
35.03 Discuss the global impact of e-commerce.		
35.04 Identify ways e-commerce sites can develop and enhance customer relationships to encourage repeat business and brand loyalty.		
35.05 Explain why the main purpose of any e-commerce site is to transform surfers into customers.		
35.06 Using a variety of problem solving strategies, charts, diagrams, etc. to identify the range of costs associated with developing an e-commerce site.		
35.07 Identify security issues involved in developing a site (firewalls, sniffer programs, hacking, viruses, encryption, SSL, TSL, digital certificates).		
35.08 Explain why web site design is critical to the success of an e-commerce venture.		
35.09 Discuss advantages/disadvantages of using an e-commerce developer or an in-house web team to design and maintain a site.		
35.10 Define SET and compare it to SSL using Venn diagrams.		
35.11 Explain how PGP works.		
35.12 Define Structured Query Language (SQL).		
35.13 Explain how SQL enables users on the Internet.		
35.14 Define electronic payment.		
35.15 Discuss customer security and privacy issues when providing financial information on the Internet.		
35.16 Explain different payment methods available for online purchase (credit card, e-check, e-cash, smart card, electronic wallets, virtual credit cards).		
35.17 Explain the Electronic Funds Transfer Act and its application to online payments.		
36.0 Develop an online marketing plan -- the student will be able to:		SC.912.N.1.1; SC.912.L.17.1
36.01 Identify trends in e-marketing using a variety of problem solving strategies.		

CTE Standards and Benchmarks	FS-M/LA	NGSSS-Sci
36.02 Define marketing-related terms.		
36.03 Describe the effect of e-mail and spamming on marketing in e-commerce sites.		
36.04 Identify legal, ethical and privacy issues in online marketing.		
36.05 Explain target marketing and niche marketing in relation to e-commerce.		
36.06 Describe customer profiling and related issues.		
36.07 Identify the various types of advertising options in e-commerce (links, banner ads, affiliate programs, pop-up windows, viral marketing, newsgroup postings).		
36.08 Describe electronic marketing techniques.		
36.09 Identify types of and describe the use of databases in e-commerce sites. Symbolically represent and solve multi-step and real world applications.		
36.10 Explain how electronic catalogs work Internet sales.		
36.11 Explain database-driven system and describe its advantages over a static catalog.		
36.12 Analyze e-commerce solutions including shopping carts, electronic malls, order entry systems, full cost display and smart cards. Decide whether a solution is reasonable and whether a given statement is always, sometimes or never true.		
36.13 Identify, define and discuss shipping options for an e-commerce web site.		
37.0 Demonstrate an awareness of the issues involved in a global/international e-commerce environment -- the student will be able to:		
37.01 Define and discuss the advantages of global/international e-commerce.		
37.02 Describe the implications of trade barriers on global e-commerce.		
37.03 Describe the effect of currency exchange rates on international e-commerce, using functions and equations for specified variables.		
37.04 Identify cultural attitudes and practices in the USA that could inhibit successful business operations in another country.		
37.05 Describe changes in American business practices required for success in the global marketplace.		
37.06 Identify and discuss import, export, and international tax laws and their effect on e-commerce trade.		
37.07 Analyze multi-cultural influences on global e-commerce.		
38.0 Research the plan and design of an e-commerce web page -- the student will be able to:		

CTE Standards and Benchmarks		FS-M/LA	NGSSS-Sci
38.01	Research web site design principles and explain how each contributes towards an effective web site.		
38.02	Compare and contrast positive and negative features of different web sites, using Venn diagrams, unions and intersections.		
38.03	Identify elements of a web page.		
38.04	Plan the goals, structure and design of the web site.		
38.05	Determine business goals for the e-commerce site.		
38.06	Determine product assortment, incentive, pricing, payment and shipping options.		
38.07	Develop a storyboard for the web site.		
38.08	Explain the importance of loading time as an element of web site design.		
38.09	Define HTML, DHTML, XML, VRML, web page design software and how each can be effectively used in creating an e-commerce web site.		
39.0	Create an e-commerce web site – the student will be able to:		SC.912.L17.1, 17.13, 17.16, 17.17; SC.912.N.1.1, 2.1, 2.2
39.01	Create a business for an e-commerce site.		
39.02	Create a web page.		
39.03	Create and apply a custom theme and a solid color background.		
39.04	Create a logo.		
39.05	Add clip art, graphics, images and/or photos and text.		
39.06	Add animation to text and objects using DHTML.		
39.07	Utilize navigation aids and plug-ins.		
39.08	Add graphic buttons.		
39.09	Add form elements.		
39.10	Add graphics as a form button.		
39.11	Link buttons and forms.		

CTE Standards and Benchmarks		FS-M/LA	NGSSS-Sci
39.12	Embed audio and video files.		
39.13	Add a host counter to display the number of times the web page has been visited.		
39.14	Organize information using frames.		
39.15	Launch the web browser and view the page created.		
39.16	Test the website for effectiveness (loading time, graphics, link integrity).		
40.0	Apply skills that will enhance the presentation, value and profitability of the web site – the student will be able to:		
40.01	Develop site personality (create useful site content).		
40.02	Discuss the advantages and disadvantages of outsourcing vs. an in-house team to create and manage the e-commerce site.		
40.03	Determine customer service options (e.g., e-mail, phone, fax).		
40.04	Determine the terms and conditions of sale, including warranties, after-sales service, and privacy assurances.		
40.05	Explain client-side application.		
40.06	Explain the purpose of forms in e-commerce web sites.		
40.07	Design forms for e-commerce web sites using different procedures for constructing forms (HTML tags, Software programs).		
40.08	Use JavaScript to validate data in form fields.		
40.09	Use programming tools to make web site more powerful and interactive.		
40.10	Explain the difference between dynamic and static web programming.		
40.11	Use programming language to support multi-tasking and exception handling.		
40.12	Create a site map and explain its importance.		
40.13	Create a Frequently Asked Questions page.		

**Florida Department of Education
Student Performance Standards**

Course Title: E-Commerce Entrepreneurship
Course Number: 8200350
Course Credit: 1

Course Description:

This course is designed to provide the tools necessary to create an e-commerce site by developing, analyzing and implementing a business plan. This course covers topics such as business plan development and implementation, human resources, marketing, Internet advertisement, financial management, pricing and selling of product or service, payment methods, mobile commerce, and customer service.

CTE Standards and Benchmarks	FS-M/LA	NGSSS-Sci
44.0 Apply mathematical operations and processes as well as financial planning strategies to commonly occurring situations in the workplace to accomplish job objectives and enhance workplace performance – the student will be able to:		
44.01 Monitor expense accounts by using a variety of problem-solving strategies, including drawing diagrams, charts and tables.		
44.02 Prepare and interpret balance sheets, income statements, cash-flow statements, change-in-equity statements, forecasts, break-even analyses and budgets. Decide whether a solution is reasonable, true and solve equations. Symbolically represent and solve multi-step and real world applications.		
44.03 Document the impact of financial analysis on the strategic planning process. Graph and chart information, using equations to solve problems.		
44.04 Revise short-term and long-term strategic plans based on financial analyses.		
45.0 Create an e-commerce website – the student will be able to:		
45.01 Edit web pages.		
45.02 Use appropriate file names for the Internet.		
45.03 Explain optimization of files for load time.		
45.04 Differentiate between pixels and KB as it relates to graphic size.		
45.05 Explain the purpose of Common Gateway Interface (CGI) script and Active Server Pages (ASP) in e-commerce web sites.		
45.06 Demonstrate the use of Java Applets in an e-commerce site.		

CTE Standards and Benchmarks	FS-M/LA	NGSSS-Sci
45.07 Define Java Script and explain its role in e-commerce sites.		
45.08 Demonstrate the use of data-processing tools to perform specific tasks with information that customers enter into a web site.		
45.09 Explain the use of Common Gateway Interface script in processing data on web sites.		
45.10 Explain the use of Active Server Pages (ASP) in processing data in web sites.		
45.11 Define ActiveX and indicate its advantages/disadvantages.		
45.12 Locate a host site that offers free web space.		
45.13 Upload web pages to the Internet.		
46.0 Develop and implement a business plan for an e-commerce site – the student will be able to:		SC.912.N.1.4,1.5, 2.2
46.01 Identify types of businesses most likely to succeed online.		
46.02 Identify the range of costs associated with developing an e-commerce site.		
46.03 Identify the risks/rewards associated with online business.		
46.04 Identify legal and political environments that affect e-commerce.		
46.05 Describe the process of obtaining a business license for an e-commerce site.		
46.06 Distinguish between trademark and copyright.		
46.07 Identify federal legislation protecting competition.		
46.08 Explain the concepts and benefits of e-business systems.		
46.09 Describe and explain the use of e-business systems to achieve the goals of Enterprise Resource Planning (ERP).		
46.10 Define the purpose of and describe the major components included in a business plan.		
46.11 Develop a basic business plan. Solve and graph inequalities, justify steps, determine range and domain and other appropriate multi-step applications.		
46.12 Evaluate the plan using milestones and benchmarks.		
46.13 Develop overall marketing objectives.		
46.14 Evaluate online catalog implementation methodologies.		

CTE Standards and Benchmarks	FS-M/LA	NGSSS-Sci
46.15 Coordinate and plan an evaluation of promotional activities.		
47.0 Perform human resources management activities to build interpersonal skills with individuals and teams – the student will be able to:		SC.912.N.1.1, 1.6, 2.2
47.01 Compare personal interests and skills with those needed by an entrepreneur.		
47.02 Determine motives for becoming an entrepreneur.		
47.03 Examine characteristics of online entrepreneurs.		
47.04 Explain ethical and legal issues faced by e-commerce professionals.		
47.05 Explain the social implications of decisions made and actions taken as an e-commerce professional.		
47.06 Identify the major functions and activities of management.		
47.07 Explain the role of authority, accountability, and responsibility in task management.		
47.08 Describe current and emerging e-commerce management trends.		
47.09 Analyze the interdependence of empathetic listening, synergy, and consensus building.		
47.10 Promote teamwork, leadership, empowerment, and strategies for fostering creativity.		
47.11 Define the roles within the group in the decision-making process.		
48.0 Explain the importance of employability skill and entrepreneurship skills – the student will be able to:		SC.912.N.1.1
48.01 Identify and demonstrate positive work behaviors needed to be employable.		
48.02 Develop personal career plan that includes goals, objectives, and strategies.		
48.03 Examine licensing, certification, and industry credentialing requirements.		
48.04 Maintain a career portfolio to document knowledge, skills, and experience.		
48.05 Evaluate and compare employment opportunities that match career goals.		
48.06 Identify and exhibit traits for retaining employment.		
48.07 Identify opportunities and research requirements for career advancement.		
48.08 Research the benefit of ongoing professional development.		

CTE Standards and Benchmarks		FS-M/LA	NGSSS-Sci
48.09	Examine and describe entrepreneurship opportunities as a career planning option.		
49.0	Describe the importance of professional ethics and legal responsibilities – the student will be able to:		
49.01	Evaluate and justify decisions based on ethical reasoning.		
49.02	Evaluate alternative responses to workplace situations based on personal, professional, ethical, legal responsibilities, and employer policies.		
49.03	Identify and explain personal and long-term consequences of unethical or illegal behaviors in the workplace.		
49.04	Interpret and explain written organizational policies and procedures.		
50.0	Demonstrate personal money-management concepts, procedures, and strategies – the student will be able to:		
50.01	Identify and describe the services and legal responsibilities of financial institutions.		
50.02	Describe the effect of money management on personal and career goals.		
50.03	Develop a personal budget and financial goals.		
50.04	Complete financial instruments for making deposits and withdrawals.		
50.05	Maintain financial records.		
50.06	Read and reconcile financial statements.		
50.07	Research, compare and contrast investment opportunities.		
51.0	Use information technology tools – the student will be able to:		
51.01	Use personal information management (PIM) applications to increase workplace efficiency.		
51.02	Employ technological tools to expedite workflow, including word processing, databases, reports, spreadsheets, multimedia presentations, electronic calendar, contacts, e-mail, and internet applications.		
51.03	Employ computer operations applications to access, create, manage, integrate, and store information.		
51.04	Employ collaborative/groupware applications to facilitate group work.		
52.0	Evaluate market expansion to the internet and the effect of global access on e-commerce – the student will be able to:	MAFS.912.N-Q.1.3; MAFS.912.S-IC.2	SC.912.N.1.1
52.01	Evaluate the impact of multiple time zones, languages, currencies, social, and cultural issues on e-commerce.		

CTE Standards and Benchmarks	FS-M/LA	NGSSS-Sci
52.02 Analyze the concept of personalization in e-commerce.		
52.03 Identify e-commerce site components that influence branding (logo, graphic style, online customer service, product information, site navigation, testing, core values).		
52.04 Integrate logos, slogans, URL, etc., throughout offline and online publications and advertising.		
52.05 Identify products, which are most likely to succeed in an e-commerce venture.		
52.06 Compare and contrast traditional product development with online product development.		
52.07 Explain the need for differing development cycles for online products.		
52.08 Describe rapid release marketing introduction strategies.		
52.09 Explain the Gutenberg Diagonal and its international implications.		
53.0 Demonstrate knowledge of basic market research tools – the student will be able to:	MAFS.912.S-IC.2	SC.912.L.17.11; SC.912.N.1.1, 2.2
53.01 Identify the steps of market research.		
53.02 Describe market research as both a formal and informal process.		
53.03 Identify common market research activities and the type of information each provides.		
53.04 Explain the role of ethics in marketing research.		
53.05 Explain internal/external research and the advantages/disadvantages of each.		
53.06 Explain factors limiting market research (objectives, level of commitment, resources available).		
53.07 Develop a sampling plan (who, how many, how chosen).		
53.08 Establish means to identify customer base and marketing profile.		
54.0 Demonstrate knowledge of data collection methods – the student will be able to:		SC.912.N.1.1
54.01 Explain the differences in data generated from surveys and questionnaires collected over the telephone, by mail, online, and in person.		
54.02 Explain the purpose and types of observational research and focus groups.		
54.03 Determine priorities for and potential sources of information that should be gathered.		
54.04 Explain target audience/user group as a key information source.		

CTE Standards and Benchmarks	FS-M/LA	NGSSS-Sci
54.05 Conduct interviews with selected human information sources.		
54.06 Gather information from selected print and electronic sources.		
54.07 Determine the accuracy and completeness of the information gathered.		
54.08 Define Electronic Data Interchange (EDI).		
54.09 Identify the benefits and essential elements of EDI.		
54.10 Define EDI transaction sets and data elements.		
54.11 Describe the different standards governing EDI transactions.		
54.12 Define data mining.		
54.13 Identify basic tools and techniques of data mining.		
54.14 Explain the use of data mining in Customer Relationship Management (CRM).		
54.15 Identify ethical issues of data mining.		
55.0 Demonstrate knowledge of advertising principles – the student will be able to:		
55.01 Publicize e-commerce site through non-Internet means such as mail, press release, broadcast media, print media, and specialty advertising.		
55.02 Prepare a display advertisement for an e-commerce product or service.		
55.03 Create offline ads for an e-commerce product or service.		
55.04 Create online ads for an e-commerce product or service.		
55.05 Write a news release to promote an e-commerce business.		
55.06 Analyze the nature of direct advertising strategies (direct mail, e-mail, automated callers, faxes, catalogs).		
55.07 Identify factors affecting the cost of e-mail advertising.		
55.08 Identify factors affecting the cost of newspaper ads, magazine ads, radio ads, television ads, direct mail advertising, outdoor ads, and Internet advertising.		
55.09 Differentiate between publicity and public relations.		
55.10 Describe the impact of the Internet on publicity.		

CTE Standards and Benchmarks		FS-M/LA	NGSSS-Sci
55.11	Identify niche advertising.		
55.12	Discuss the role of online communities.		
55.13	Examine the use, sources, and costs of databases in advertising.		
55.14	Identify the difference between business-to-business and business-to-consumer advertising.		
56.0	Demonstrate proficiency in web site promotion of an e-commerce site – the student will be able to:	MAFS.912.S-IC.2	SC.912.N.1.1
56.01	Research site development methodology.		
56.02	Demonstrate site registration with search engines, shopping bots, and Web directories.		
56.03	Identify processes to improve visibility in search engines (meta tags, titling, keyword repetition, content management, site design, and link popularity).		
56.04	Evaluate legal effects of registration (spamming, duplication).		
56.05	Establish and manage links with other sites.		
56.06	Determine methods to generate hit analysis data.		
56.07	Determine whether to offer response incentives.		
56.08	Determine what type of response incentives to offer.		
56.09	Use design elements and principles to facilitate use and buying decision.		
56.10	Provide company information and update frequently.		
57.0	Define the building blocks of a secure system – the student will be able to:		SC.912.N.1.1
57.01	Define terms associated with system security (user authentication, data origin authentication, confidentiality, data integrity, non-repudiation, peer authentication, message digests).		
57.02	Describe security and privacy issues in e-business systems.		
57.03	Explain the difference between security and privacy.		
57.04	Explain how Internet and Intranet sites become vulnerable to attack.		
57.05	Identify security issues associated with business-to-consumer e-commerce.		
57.06	Describe Intrusion Detection System, misuse intrusion, and anomaly intrusion.		

CTE Standards and Benchmarks	FS-M/LA	NGSSS-Sci
57.07 Explain transaction security.		
57.08 Explain security-related agencies and software.		
57.09 Explain how privacy affects personalization.		
57.10 Identify security and payment processing issues involved in developing a site (SSL, Digital Certificates, SET Protocol, Cyber Cash).		
58.0 Demonstrate knowledge, skill, management and application of an internet advertising campaign – the student will be able to:		SC.912.N.1.1; SC.912.L.17.1
58.01 Analyze the types, advantages, and disadvantages of Internet advertising (interacting personally and wireless network).		
58.02 Evaluate locations for ad placement (search engines, directories, specialty websites, sponsorship websites).		
58.03 Identify factors affecting the cost of e-mail advertising and banner ads (click-through pricing, bartering, Internet Advertising Bureau rate cards, audience demographics).		
58.04 Identify standard sizes for Internet ads.		
58.05 Identify file formats for graphic ads.		
58.06 Define goal of Internet ads (banners, buttons).		
58.07 Create Internet ads using layers to create simple animation, a tagline, and design features to gain attention.		
58.08 Create design that encourages customer order.		
58.09 Place Internet ads, evaluate results, and cost effectiveness.		
58.10 Compare potential effectiveness with other Internet strategies.		
59.0 Analyze financial data relevant to e-commerce decision making – the student will be able to:		
59.01 Explain the critical nature of banking relationships.		
59.02 Explain the purpose and importance of obtaining business financing.		
59.03 Describe sources of financing for businesses.		
59.04 Describe electronic financial services.		
59.05 Use the Internet to locate sources of financing for businesses.		
59.06 Examine the costs of owning/running a server.		

CTE Standards and Benchmarks	FS-M/LA	NGSS-Sci
59.07 Examine the costs of using an Internet Service Provider (ISP).		
59.08 Examine costs related to e-commerce (site design, maintenance, and support).		
59.09 Explain costs of interfacing with existing databases, order systems, and accounting systems.		
59.10 Explain profitability in e-commerce sites.		
59.11 Explain the financial implications of outsourcing vs. internal development.		
60.0 Identify principles of pricing – the student will be able to:		
60.01 Perform set operations using Venn diagrams to explore relationships and patterns.		
60.02 Explain the nature and scope of the pricing function, the role of business ethics and the use of technology in pricing.		
60.03 Identify the basic considerations consumers and businesses weigh in accepting a price.		
60.04 Explain how supply, demand, and price are related.		
60.05 Research and analyze competitors' prices.		
60.06 Evaluate psychological and discount pricing techniques.		
60.07 Describe geographic and promotional pricing techniques.		
60.08 Calculate product cost, break-even point, and elasticity of demand.		
60.09 Evaluate difficulties in applying traditional pricing strategies to e-commerce.		
60.10 Evaluate characteristics, goals, advantages and disadvantages of cost-based pricing, demand-based, competition-based, product mix, product change, segmented (customer segmented, location, time), and the impact of e-commerce on pricing strategies.		
60.11 Evaluate the relationship between shipping costs and prices in online sales.		
60.12 Evaluate the impact of pricing errors in e-commerce.		
60.13 Explain real-time pricing in the online environment.		
61.0 Identify principles of selling – the student will be able to:		
61.01 Explain the purpose, importance and business ethics of selling.		
61.02 Describe the nature of selling regulations.		

CTE Standards and Benchmarks	FS-M/LA	NGSSS-Sci
61.03 Describe the use of technology in the selling function.		
61.04 Identify the benefits of site/online sales.		
61.05 Explain the role of customer service as a component of selling relationships.		
61.06 Identify key factors in building a clientele.		
61.07 Identify incentives for sales staff.		
61.08 Identify types of sales promotion (coupons, premiums, sweepstakes) and it can be used in e-commerce.		
61.09 Determine when sales promotion activities are the best promotional tool.		
61.10 Generate a sales promotion plan for an e-commerce site.		
61.11 Calculate the costs of sales promotion activities.		
61.12 Identify return on investment of sales promotion activities.		
61.13 Create an electronic sales presentation with an integrated Internet link.		
61.14 Evaluate effectiveness of integration.		
61.15 Use on-line strategies for follow-up.		
61.16 Examine automated follow-up.		
61.17 Prepare and evaluate sales reports.		
62.0 Analyze electronic payment mechanisms – the student will be able to:	MAFS.912.S-IC.2	SC.912.N.1.1
62.01 Identify e-cash terminology.		
62.02 Describe stored-value cards, online checks and electronic wallets.		
62.03 Define real time processing.		
62.04 Explain the purpose of auto e-mail.		
62.05 Describe risks and costs involved with credit card use online.		
62.06 Identify the advantages/disadvantages of electronic/digital cash.		
62.07 Evaluate the impact of multiple currencies on e-commerce.		

CTE Standards and Benchmarks	FS-M/LA	NGSSS-Sci
62.08 Describe electronic funds transfer at point of sale (EFT/POS).		
62.09 Describe direct data entry transmissions and financial electronic data interchanges (F-EDI).		
62.10 Describe the characteristics of successful payment systems.		
62.11 Identify future trends in and risks associated with electronic payment systems.		
62.12 Differentiate between the payment systems applicable for business-to-consumer, business-to-business, and consumer-to-consumer transactions.		
62.13 Describe a transaction-processing service.		
62.14 Explain Internet Transaction Brokers (ITBs).		
62.15 Explain the Electronic Funds Transfer Act and its application to online payments.		
62.16 Describe a turnkey system.		
62.17 Define Merchant Account Provider (MAP).		
62.18 Identify costs associated with a merchant service and/or third-party verifier agreement.		
62.19 Locate an online application for a merchant account.		
62.20 Define related terms (Card Not Present (CNP), Mail Order/Telephone Order (MOTO), real time and digital certificate).		
62.21 Explain verification activities.		
63.0 Analyze taxation issues relevant to e-commerce – the student will be able to:		
63.01 Define permanent establishment.		
63.02 Explain permanent establishment issues in e-commerce.		
63.03 Identify the issues of digital downloads.		
63.04 Describe international issues.		
63.05 Identify global taxation solutions.		
63.06 Explain Value Added Tax.		
63.07 Explain the Internet Tax Freedom Act (ITFA).		

CTE Standards and Benchmarks		FS-M/LA	NGSSS-Sci
63.08	Determine payment options that comply with legal regulations regarding sales taxes.		
64.0	Describe mobile commerce – the student will be able to:		SC.912.N.1.1
64.01	Define mobile-commerce.		
64.02	Define related terms (personal digital assistant, micro browser, Wireless Application Protocol/WAP).		
64.03	Identify m-commerce payment methods.		
64.04	Identify the challenges associated with M-Commerce.		
64.05	Compare WML with HTML.		
64.06	Identify attributes of mobile communications and how each will affect mobile commerce.		
65.0	Demonstrate an understanding of global concepts relevant to customer relationship management (CRM) – the student will be able to:		SC.912.N.1.1
65.01	Identify ways an e-commerce site can be used to develop and enhance customer relationships to encourage repeat business and brand loyalty.		
66.0	Explain the role of quality, warranties and guarantees, and e-commerce usability in customer satisfaction – the student will be able to:		SC.912.N.1.1
66.01	Identify ways of keeping in touch with customers after the sale.		
66.02	Explain the correlation between customer retention and acquisition costs.		
66.03	Explain the use of CRM software in business-to-consumer and business-to-business operations.		
66.04	Describe the influence of culture on consumer behavior.		
66.05	Determine training needs for traditional sales staff for use on an e-commerce site.		
66.06	Provide customer training for use of on-line buying.		
66.07	Facilitate a customer service policy.		
66.08	Explain the purpose of a call center for an online business.		
66.09	Explain click-through rates and the role of visit duration on click decision.		
66.10	Explain why and how consumer decision-making is influenced online.		
66.11	Explain and evaluate the impact of online customer support.		

CTE Standards and Benchmarks	FS-M/LA	NGSS-Sci
66.12 Explain the 80/20 rule of customer support.		
66.13 Use online methods to receive and respond to customers' questions (e-mail, mailbots, auto responder).		
66.14 Enable consumer to choose communication vehicle (call home, work, cell, fax, e-mail).		
66.15 Create Frequently Asked Questions (FAQs).		
66.16 Use file libraries and archives.		
66.17 Project a professional image (appearance, voice, grammar, word usage, enunciation, nonverbal communication).		
66.18 Interact with customers and colleagues in a professional manner (prompt, friendly, courteous, respectful, helpful, knowledgeable, clear).		
66.19 Explain how the Communications Decency Act applies to e-commerce issues.		
66.20 Evaluate how online forums can promote customer relations.		
66.21 Conduct conferences and surveys.		
66.22 Use sales promotion (free samples, contests).		
66.23 Provide links to complementary sites.		
66.24 Discuss the benefits of an extranet.		
66.25 Describe how Value Added Networks (VANs) operate.		
66.26 Explain VAN-based EDI and Internet EDI.		
67.0 Develop communication skills for an international audience – the student will be able to:		
67.01 Identify the customs of the recipient that impact communication.		
67.02 Find answers to questions related to international communications using available human, print, and electronic sources.		
67.03 Prepare documents in correct style for international communications.		
67.04 Use appropriate message and delivery in oral communications.		

**Florida Department of Education
Student Performance Standards**

Course Title: E-Commerce Systems Analysis and Design
Course Number: 8200360
Course Credit: 1

Course Description:

This course is designed to provide a systematic overview of analysis and design factors, as well as trends and issues impacting the effectiveness, efficiency and profitability of e-commerce web sites.

CTE Standards and Benchmarks	FS-M/LA	NGSSS-Sci
68.0 Analyze the building blocks of a secure system – the student will be able to:		SC.912.N.1.1
68.01 Define system and network security.		
68.02 Describe the different types of Internet security.		
68.03 Explain and identify anti-virus programs.		
68.04 Explain the difference between security and privacy.		
68.05 List the principal protocols used in Internet security.		
68.06 Explain Intrusion Detection System.		
68.07 Define security-related terms.		
68.08 Explain how a user identification and password provide security one-commerce sites.		
68.09 Explain encryption, decryption, private key encryption and public key encryption.		
68.10 Explain the difference between the two types of key encryptions.		
68.11 Identify and explain data transmission technology and how it is used in web pages (SSL, TLS, SET).		
68.12 Describe a SET enabled browser and a SET enabled server.		
68.13 Explain the use of digital signatures and certificates.		
68.14 Describe the certificate life cycle.		

CTE Standards and Benchmarks	FS-M/LA	NGSSS-Sci
68.15 Develop a privacy policy that considers <i>what</i> information is being collected with and without the user's (IP address, personal data, demographics); <i>why</i> the data is needed (customization, administration, communication); <i>when</i> is it collected (forms, cookies, other locations); <i>who</i> will use the information (suppliers, sell or lease to others, third parties); <i>where</i> will the information be housed (on-site, sent to data base); <i>how</i> can the data be removed or modified.		
68.16 Describe procedures for maintaining the confidentiality of client information.		
68.17 Explain why information is a competitive resource.		
68.18 Explain the importance of data warehouses.		
68.19 Discuss application security measures.		
68.20 Describe the various messaging security techniques.		
68.21 Define a Virtual Private Network and explain its features, its components, and how it is deployed.		
69.0 Demonstrate an awareness of the issues and trends involved in an e-commerce environment – the student will be able to:		
69.01 Discuss issues and trends impacting the economy and the success of e-commerce web sites.		
69.02 Discuss reasons for slow productivity despite advancing technology.		
69.03 Discuss the advantages/disadvantages of removing bugs from software already installed in information systems.		
69.04 Discuss solutions to ease the shortage of technology workers.		
69.05 Discuss factors faced by e-commerce companies when seeking funding.		
69.06 Research current trends and issues impacting e-commerce nationally and globally.		
69.07 Explain how the Communications Decency Act applies to e-commerce issues.		
69.08 Research and discuss privacy issues faced by employees and consumers in today's electronic society.		
69.09 Identify developing ethical and legal issues in e-commerce.		
69.10 Explain the social, ethical, and legal implications of decisions made and actions taken as an e-commerce professional.		
70.0 Analyze effectiveness and proficiency of web site – the student will be able to:		

CTE Standards and Benchmarks	FS-M/LA	NGSSS-Sci
70.01 Explain why the website design is critical to the success of an e-commerce venture. Use a variety of problem solving strategies, draw diagrams and charts. Decide if a solution is reasonable and if a statement is true. Symbolically represent applications and solve and graph variables and solutions.		
70.02 Define System Development Life Cycle (SDLC).		
70.03 Explain the five major phases of a SDLC (Planning, Analysis, Design, Implementation, and Support).		
70.04 Research and discuss activities performed during the planning, analysis, design, implementation, and support phase.		
70.05 Discuss the necessity to correct major errors during the System Development Life Cycle (SDLC) of an e-commerce site.		
70.06 Explain potential costs involved in correcting problems not caught during the SDLC.		
70.07 Explain the use of web statistics in planning, management, marketing and developing/revising promotional strategy.		
70.08 Determine site profitability over time.		
70.09 Assess the impact of site on costs.		
70.10 Determine if the site increases quality of customer service, builds brand and improves business image.		
70.11 Explain advantage decision support systems (e.g., airlines use it to sum up flight history, aircraft wear, reduce traffic congestion).		
70.12 Create an evaluation plan to measure the effectiveness of the Web site (page counters, logs, search engines, asking visitors how they found the site).		
70.13 Determine methods to generate hit analysis data.		
70.14 Evaluate sources of raw data for statistical web site analysis (HTTP server logs, web server hardware and operating system logs, network monitor logs, user registration databases, and third-party web site analysis services).		
70.15 Calculate and analyze site effectiveness based on statistical hits and clickstream data.		
70.16 Compose a report of relevant data that includes charts or graphs and presents conclusions.		
70.17 Implement financial analysis techniques in decision making.		
70.18 Implement non-financial analysis techniques in decision making.		
71.0 Demonstrate knowledge of e-commerce legal issues – the student will be able to:		

CTE Standards and Benchmarks	FS-M/LA	NGSSS-Sci
71.01 Explain the legal use of digital signatures for electronic contracting.		
71.02 Discuss laws pertaining to security and privacy of data collected.		
71.03 Explain consumer protection law.		
71.04 Explain court jurisdictional issues related to e-commerce.		
71.05 Identify the liability for invasion of privacy.		
71.06 Describe confidentiality issues and their liability implications.		
71.07 Explain legal and ethical issues related to consumer privacy.		
71.08 Identify federal legislation protecting competition.		
71.09 Identify major federal food and drug legislation affecting marketing strategies.		
72.0 Demonstrate knowledge of disaster protection methods – the student will be able to:		
72.01 Identify the purpose of a server accelerator card.		
72.02 Define noise, spike, brownout, and blackout.		
72.03 Research ways to protect hardware from system failure.		
72.04 Explain UPS and the importance of having one.		
72.05 Discuss types of backups to prevent data loss.		
73.0 Analyze methods of web hosting – the student will be able to:		
73.01 Compare the advantages/disadvantages and costs of self-hosting vs. web hosting.		
73.02 Compare the advantages/disadvantages of using web development and design services.		
73.03 Identify the qualities of server providers (uptime, technical support, connection time).		
73.04 Identify and describe hardware necessary for web site hosting.		
73.05 Design a sample business system architecture for a self-hosting web site.		
73.06 Examine the requirements of Web, Commerce, Transaction and Database servers used in e-commerce.		
73.07 Examine costs related to e-commerce (site design, maintenance and support). Solve		

CTE Standards and Benchmarks	FS-M/LA	NGSSS-Sci
real world problems, use charts and graphs, perform set operations, and use Venn diagrams.		
73.08 Plan how to establish a domain name.		
73.09 Upload files to the server.		
73.10 Explain server capacity to support site options and user traffic.		
73.11 Explain the process to e-commerce-enable a website.		
73.12 Collect/analyze usage statistics.		
73.13 Select hosting company based on set criteria.		
73.14 Test site with different browsers.		
73.15 Register site with various search engines/portals.		
73.16 Revise design to reflect user feedback.		
74.0 Analyze and demonstrate the application of e-commerce software packages – the student will be able to:		
74.01 Analyze project management software.		
74.02 Evaluate software packages for Internet ads management.		
74.03 Explain the use of CRM software in business-to-consumer and business-to business-operations.		
74.04 Identify the key functions of systems software.		
74.05 Explain and identify widely used software applications (browsers, word processing, database management, spreadsheet development, CRM applications, web content development).		
74.06 Identify new and emerging classes of software.		
74.07 Identify software used in e-commerce.		
74.08 Identify storefront software packages.		
74.09 Identify selection criteria used for software purchases.		
74.10 Identify differences between implementing an e-commerce site with an off-the-shelf software package vs. freeware CGI solutions.		

CTE Standards and Benchmarks	FS-M/LA	NGSSS-Sci
74.11 Outline and explain business application tools and processes that can be used as part of a company's e-commerce solution.		
74.12 Define site template.		
74.13 Identify types of editor software used as a source of templates (HTML, Word Processor, WYSIWYG).		
74.14 Identify advantages/disadvantages of using templates.		
74.15 Identify online services that provide templates.		
74.16 Identify storefront hosting services.		
74.17 Differentiate between site templates and store templates.		
74.18 Create an example site using a site template.		
74.19 Create an example site using a store template.		
75.0 Demonstrate knowledge of network components – the student will be able to:		
75.01 Identify the four components of a network operating system (server platform, network services software, network redirection software, communications software).		
75.02 Define fat client and thin client.		
75.03 Interpret basic networking terminology.		
75.04 Identify the different types of Wide-Are Network (WAN) connections.		
75.05 Describe point-to-point (PPP) interconnection.		
75.06 Identify basic telecommunications services (satellite, circuit switching, packet switching, wireless).		
75.07 Differentiate between local exchange carriers and interexchange carriers.		
75.08 Define local access and transport areas.		
75.09 Identify packet carriers and their services.		
75.10 Identify the role of telecommunications tariffs.		
75.11 Explain the role of the router in connecting to the Internet.		
75.12 Explain the role of a Channel Service Unit/Data Service Unit.		

CTE Standards and Benchmarks	FS-M/LA	NGSSS-Sci
75.13 Identify basic telecommunication bandwidths.		
75.14 Describe the basics of ISDN, X.400, and DSL technologies.		
76.0 Maintain an e-portfolio for job application purposes – the student will be able to:		
76.01 Plan, design, and create e-commerce websites that include a theme, backgrounds, content, categories and product, text, graphics, graphic buttons, graphics as a form button, hyperlinks, form elements, company and contact information, navigation bars, navigation aids, a company logo, audio and video files, a host counter, frames.		
76.02 Prepare and submit a résumé to use for online job applications.		
76.03 Prepare and submit a letter of application online.		
77.0 Demonstrate leadership and teamwork skills needed to accomplish team goals and objectives – the student will be able to:		
77.01 Employ leadership skills to accomplish organizational goals and objectives.		
77.02 Establish and maintain effective working relationships with others in order to accomplish objectives and tasks.		
77.03 Conduct and participate in meetings to accomplish work tasks.		
77.04 Employ mentoring skills to inspire and teach others.		
78.0 Solve problems using critical thinking skills, creativity and innovation – the student will be able to:		
78.01 Employ critical thinking skills independently and in teams to solve problems and make decisions.		
78.02 Employ critical thinking and interpersonal skills to resolve conflicts.		
78.03 Identify and document workplace performance goals and monitor progress toward those goals.		
78.04 Conduct technical research to gather information necessary for decision-making.		
79.0 Demonstrate the importance of health, safety, and environmental management systems in organizations and their importance to organizational performance and regulatory compliance – the student will be able to:		
79.01 Describe personal and jobsite safety rules and regulations that maintain safe and healthy work environments.		
79.02 Explain emergency procedures to follow in response to workplace accidents.		
79.03 Create a disaster and/or emergency response plan.		

CTE Standards and Benchmarks	FS-M/LA	NGSSS-Sci
80.0 Describe the roles within teams, work units, departments, organizations, inter-organizational systems, and the larger environment – the student will be able to:		
80.01 Describe the nature and types of business organizations.		
80.02 Explain the effect of key organizational systems on performance and quality.		
80.03 List and describe quality control systems and/or practices common to the workplace.		
80.04 Explain the impact of the global economy on business organizations.		