

# **Electronic Commerce**

## **A GUIDE TO**



# **COURSE COMPETENCIES**

**with Related Standards of Learning**

**The Marketing Program  
Virginia Department of Education  
©2000**

**Interim Draft**

# **E-Commerce**

## **A Guide to Marketing Course Competencies with Related Standards of Learning — Interim Guide**

**Developed by the**  
E-Commerce Teacher Writing Team

**and the**  
CTE Resource Center

**for the**  
Marketing Program  
Office of Career, Technical, and Adult Education Services  
Virginia Department of Education

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# Foreword

*Electronic Commerce: A Guide to Marketing Course Competencies with Related Standards of Learning Interim Draft* is the framework for a new Marketing course called Electronic Commerce (8125). The *Draft Guide* was developed during the past year and is a cooperative effort of Virginia business/industry representatives and Marketing educators.

During 1999, technical panels in the field of electronic commerce met to generate an occupational task list for the *Guide*. When this work was completed, Marketing Teacher-Coordinators from across the state met in early 2000 to develop instructional competencies and measures based on the panel's recommendations. The teachers also identified the Virginia Standards of Learning (SOL) included and reinforced in Electronic Commerce. Essential competencies are designated by a bullet (see pages 5 and 6) and are required of all students.

The resulting draft document will be field reviewed by Marketing teachers during 2000-01. During spring 2001, field test results will be examined and validated by a teacher review team. The finalized *Guide* will be available in summer 2001.

This *Interim Draft Guide* has been prepared through the generous contributions of many individuals whose names are listed in the Acknowledgements. Their efforts have been instrumental in the preparation of this draft document.

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# Introduction

*Electronic Commerce: A Guide to Marketing Competencies with Related Standards of Learning Interim Draft* is a newly developed framework for Electronic Commerce (8125). Electronic Commerce is a 36-week course for 11th and 12th graders. It is designed for those juniors and seniors who plan further study in marketing or business and for those who plan to own or manage an electronic commerce business or a business of which electronic commerce is a part.

This *Interim Draft* contains the course description, course competencies, course standards, suggested evaluation methods, related aspects of industry, and related Virginia Standards of Learning for Electronic Commerce. The document also identifies the essential competencies, which are those required of all Virginia public high school students enrolled in Electronic Commerce classes. Student competency records for the course may be accessed at the CTE Resource Center's web site (<http://vvcrc.tec.va.us>) by clicking on "Task Lists" and following the links to the course desired.



# Electronic Commerce



**Grade Level: 11, 12 (36 weeks)**  
**Course # 8125 (oe)**

**Students learn about the paperless exchange of business and marketing information using technology (i.e., Internet, e-mail, electronic data interchange, and electronic funds transfer).**

**Included in this course is an overview of the technology of web servers, clients, and net infrastructure and the background of this fast-growing market; the economics of electronic markets; market research; advertising on the web and web page basics; pricing information; security and encryption; and on-line business opportunities.**



# Competency-Based Education Task/Competency List

## Electronic Commerce

**8125    36 Weeks**

Competencies designated by bullets in the left-hand column(s) are considered essential statewide and are required of all students. In some courses, all competencies have been identified as essential. Unbulleted competencies and/or locally added competencies should be included as local conditions permit.

8125 36 Wks	<b>Electronic Commerce TASK/COMPETENCY</b>
	<b>Understanding the History and Diverse Nature of Electronic Commerce</b>
•	1. Identify individual responsibilities and security and safety precautions related to the Internet.
•	2. Explain the term <i>commerce</i> .
	3. Trace the history of electronic commerce through the present day.
•	4. Explain the term <i>electronic commerce</i> .
•	5. Describe electronic data interchange (EDI).
•	6. Explain the term <i>Internet</i> .
•	7. Describe the development of the Internet.
	8. Describe the interactive nature of the Internet.
•	9. Explain the interrelationship of electronic commerce and the Internet.
	10. Explain the interrelationship of EDI and the Internet.
•	11. Examine the advantages and disadvantages of EDI.
	<b>Understanding Economic Concepts</b>
•	12. Describe the major types of economic resources.
•	13. Describe the effects of competition in a private enterprise economy.
•	14. Analyze governmental involvement in business.
	<b>Using the Internet as a Marketing Tool</b>
•	15. Explain the basic marketing functions.
•	16. Explain how the basic marketing functions apply in the world of electronic commerce.
	17. Compare Internet marketing with traditional marketing.
•	18. Describe criteria for identifying a potential web site product or service
•	19. Describe the Internet tools and methods used to market goods and services.
•	20. Explain how electronic commerce can be integrated into a marketing strategy.
•	21. Describe methods for promoting a web site.
•	22. Describe ways to use customer service for improving site performance.
•	23. Identify types of research for gathering information on customers and potential customers.
	24. Describe the uses of databases as a marketing tool.
•	25. Explain target marketing and niche marketing in relation to electronic commerce.
•	26. Explain the potential roles of electronic commerce in a company's overall business plan.
•	27. Describe electronic marketing techniques most effective for business-to-business transactions.
•	28. Describe electronic marketing techniques most effective for business-to-customer transactions.

<b>8125 36 Wks</b>	<b>Electronic Commerce TASK/COMPETENCY</b>
•	29. Describe collection and payment options for web sites.
•	30. Describe customer service as it relates to electronic commerce.
<b>Exploring the Technological Aspects of Web-Based Electronic Commerce</b>	
•	31. Describe the function(s) of an electronic commerce web site.
•	32. Describe the infrastructure requirements of an electronic commerce web site.
•	33. Explain the concept of markup language.
•	34. Identify criteria for effective web site design.
•	35. Identify the advantages and disadvantages of outsourcing and of in-house design and maintenance of a web site.
•	36. Describe the start-up and maintenance costs associated with a web site.
•	37. Distinguish between the concepts of personalization and mass customization.
•	38. Identify tools and steps necessary for designing a web site.
•	39. Identify steps for uploading a web site to a web server.
•	40. Describe the technology used to track customer/sales data on a web site.
•	41. Describe ways to use customer/sales data for improving site performance.
•	42. Create a business-to-customer web site.
<b>Exploring the Ethical, Legal, and Security Aspects of Electronic Commerce</b>	
•	43. Explain legal issues related to electronic commerce.
•	44. Explain governmental policies related to electronic commerce.
•	45. Identify business-to-business electronic data interchange security concerns.
•	46. Examine business-to-customer security concerns.
•	47. Explain security methods related to customer and company data.
•	48. Examine ethical issues related to electronic commerce.
<b>Preparing for a Career in Electronic Marketing</b>	
•	49. Describe career opportunities in the field of electronic commerce.
•	50. Identify current job opportunities.
•	51. Identify the professional industrial certifications available within the electronic commerce industry.
•	52. Identify industry trends in electronic commerce.
•	53. Develop an electronic resume.
•	54. Prepare a professional portfolio.
•	55. Identify potential employment barriers to nontraditional groups and ways to overcome the barriers.
•	56. Identify the purposes and goals of the student organization.
•	57. Enhance leadership skills through participation in the student organization.
<b>Planning for Implementation of an Electronic Commerce Site</b>	
•	58. Explain the role of the web site in the overall marketing plan.
•	59. Develop a business plan for a web site.
•	60. Develop a marketing plan for a web site.

**Duty Area 1**  
**UNDERSTANDING THE HISTORY AND DIVERSE NATURE OF ELECTRONIC**  
**COMMERCE**

---

- 1.1 Identify individual responsibilities and security and safety precautions related to the Internet.
- 1.2 Explain the term *commerce*.
- 1.3 Trace the history of electronic commerce through the present day.
- 1.4 Explain the term *electronic commerce*.
- 1.5 Describe electronic data interchange (EDI).
- 1.6 Explain the term *Internet*.
- 1.7 Describe the development of the Internet.
- 1.8 Describe the interactive nature of the Internet.
- 1.9 Explain the interrelationship of electronic commerce and the Internet.
- 1.10 Explain the interrelationship of EDI and the Internet.
- 1.11 Examine the advantages and disadvantages of EDI.



**Duty Area 1**  
**UNDERSTANDING THE HISTORY AND DIVERSE NATURE OF ELECTRONIC**  
**COMMERCE**

---

**1.1 Identify individual responsibilities and security and safety precautions related to the Internet.**

*Essential Competency*

Yes

*Standard*

Identification should include responsibilities (e.g., using the Internet for school-assigned purposes only); security precautions (e.g., avoiding the online submission of personal information such as social security number or credit card numbers); and safety precautions (e.g., avoiding personal conversations or the submission of personal information in chatrooms), in accordance with instructor's guidelines.

*Suggested Evaluation Method*

Test, average or above rating

*Related Aspects of Industry*

Planning  
Principles of Technology  
Health, Safety, and Environment

**1.2 Explain the term *commerce*.**

*Essential Competency*

Yes

*Standard*

Explanation should include a basic definition of the term with examples, in accordance with instructor's guidelines.

*Suggested Evaluation Method*

Test, average or above rating

*Related Aspects of Industry*

Management

**1.3 Trace the history of electronic commerce through the present day.**

*Essential Competency*

No

*Standard*

Response should begin with early systems and continue through electronic data interchange and the Internet, showing what has changed and what has not over the years. It should describe the role of customer satisfaction and profit making throughout history, in accordance with instructor's guidelines.

*Suggested Evaluation Method*

Group research report with timeline, rated acceptable based on instructor's guidelines

*Related Aspects of Industry*

Management  
Principles of Technology

**1.4 Explain the term *electronic commerce*.**

*Essential Competency*

Yes

*Standard*

Explanation should include a basic definition of the term with examples, in accordance with instructor's guidelines.

*Suggested Evaluation Method*

Test, average or above rating

*Related Aspects of Industry*

Management

Principles of Technology

**1.5 Describe electronic data interchange (EDI).**

*Essential Competency*

Yes

*Standard*

Description should include a definition of the term, an explanation of the process involved, and examples, in accordance with instructor's guidelines.

*Suggested Evaluation Method*

Test, average or above rating

*Related Aspects of Industry*

Management

Principles of Technology

**1.6 Explain the term *Internet*.**

*Essential Competency*

Yes

*Standard*

Include a description of the various components of the Internet (e.g., World Wide Web, e-mail, file transfer protocol, newsgroups, chatrooms), in accordance with instructor's guidelines.

*Suggested Evaluation Method*

Test, average or above rating

*Related Aspects of Industry*

Management

Principles of Technology

**1.7 Describe the development of the Internet.**

*Essential Competency*

Yes

*Standard*

Description should include the roles of Arpanet, the National Science Foundation, and universities and technological advances such as graphical browsers, hypertext transfer protocol, and other factors, in accordance with instructor's guidelines.

*Suggested Evaluation Method*

Written or oral research report

*Related Aspects of Industry*

Management

Principles of Technology

**1.8 Describe the interactive nature of the Internet.**

*Essential Competency*

No

*Standard*

Description should include the importance of the Internet to the sharing of information (whether posting a web site for others to read; sending e-mail, text files, sound, or graphics; participating in interchanges such as chatrooms or web-based conferences; searching online interactive databases; or navigating from one hotlink to another), in accordance with instructor's guidelines.

*Suggested Evaluation Method*

Written or oral explanation, rated acceptable based on instructor's guidelines

*Related Aspects of Industry*

Technical and Production Skills

Principles of Technology

**1.9 Explain the interrelationship of electronic commerce and the Internet.**

*Essential Competency*

Yes

*Standard*

Explanation should include identification of the types of data that are transferred via the Internet and for what purposes, in accordance with instructor's guidelines.

*Suggested Evaluation Method*

Written or oral explanation, rated acceptable based on instructor's guidelines

*Related Aspects of Industry*

Management

Finance

Principles of Technology

**1.10 Explain the interrelationship of EDI and the Internet.**

*Essential Competency*

No

*Standard*

Explanation should include a brief explanation of how EDI makes use of the Internet and examples of its use, in accordance with instructor's guidelines.

*Suggested Evaluation Method*

Written or oral explanation, rated acceptable based on instructor's guidelines

*Related Aspects of Industry*

Finance

Principles of Technology

**1.11 Examine the advantages and disadvantages of EDI.**

*Essential Competency*

Yes

*Standard*

Response should include advantages (e.g., speed, accuracy, cost-effectiveness, timeliness, and accessibility of data for marketing research) and disadvantages (e.g., potential invasion of privacy and problems of data security), in accordance with instructor's guidelines.

*Suggested Evaluation Method*

Test, average or above rating

*Related Aspects of Industry*

Finance

Principles of Technology

**Duty Area 2**  
**UNDERSTANDING ECONOMIC CONCEPTS**

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- 2.1 Describe the major types of economic resources.
- 2.2 Describe the effects of competition in a private enterprise economy.
- 2.3 Analyze governmental involvement in business.



**Duty Area 2**  
**UNDERSTANDING ECONOMIC CONCEPTS**

---

**2.1 Describe the major types of economic resources.**

*Essential Competency*

Yes

*Standard*

Description should include a definition of the types of economic resources (i.e., land, labor, and capital) and the purposes of each, in accordance with instructor's guidelines.

*Suggested Evaluation Method*

Written report, rated acceptable based on instructor's guidelines

*Related Aspects of Industry*

Planning

Management

Finance

**2.2 Describe the effects of competition in a private enterprise economy.**

*Essential Competency*

Yes

*Standard*

Description should include a brief explanation of economic goods and services, as well as the roles of price and non-price competition, supply and demand, and other economic concepts relevant to the effects of competition in a private enterprise economy, in accordance with instructor's guidelines.

*Suggested Evaluation Method*

Case study analysis, rated acceptable based on instructor's guidelines

*Related Aspects of Industry*

Planning

Management

Finance

### **2.3 Analyze governmental involvement in business.**

#### *Essential Competency*

Yes

#### *Standard*

Analysis should include a description of various economic systems and the level of governmental involvement in each (e.g., taxation, licensing, regulatory laws), in accordance with instructor's guidelines.

#### *Suggested Evaluation Method*

Class debate (e.g., "To what degree, if any, should government involve itself in business?"), rated acceptable based on instructor's guidelines

#### *Related Aspects of Industry*

Planning

Management

Finance

Labor Issues

Business/Community Relations

Health, Safety, and Environment

**Duty Area 3**  
**USING THE INTERNET AS A MARKETING TOOL**

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- 3.1 Explain the basic marketing functions.
- 3.2 Explain how the basic marketing functions apply in the world of electronic commerce.
- 3.3 Compare Internet marketing with traditional marketing.
- 3.4 Describe criteria for identifying a potential web site product or service.
- 3.5 Describe the Internet tools and methods used to market goods and services.
- 3.6 Explain how electronic commerce can be integrated into a marketing strategy.
- 3.7 Describe methods for promoting a web site.
- 3.8 Describe ways to use customer service for improving site performance.
- 3.9 Identify types of research for gathering information on customers and potential customers.
- 3.10 Describe the uses of databases as a marketing tool.
- 3.11 Explain target marketing and niche marketing in relation to electronic commerce.
- 3.12 Explain the potential roles of electronic commerce in a company's overall business plan.
- 3.13 Describe electronic marketing techniques most effective for business-to-business transactions.
- 3.14 Describe electronic marketing techniques most effective for business-to-customer transactions.
- 3.15 Describe collection and payment options for web sites.
- 3.16 Describe customer service as it relates to electronic commerce.



**Duty Area 3**  
**USING THE INTERNET AS A MARKETING TOOL**

---

**3.1 Explain the basic marketing functions.**

*Essential Competency*

Yes

*Standard*

Explanation should include functions such as

- distribution
- financing
- marketing information/research
- pricing
- promotion
- selling

in accordance with instructor's guidelines.

*Suggested Evaluation Method*

Test, average or above rating

*Related Aspects of Industry*

Planning

Management

Finance

**3.2 Explain how the basic marketing functions apply in the world of electronic commerce.**

*Essential Competency*

Yes

*Standard*

Explanation should include examples that illustrate the application of each marketing function to electronic commerce, including

- managing inventory and distribution
- managing finances
- researching potential customers and ways to reach and serve them
- maintaining competitive pricing
- drawing customers to the web site
- identifying and describing merchandise or services
- handling online orders, questions, and complaints
- satisfying customers' wants and needs
- maintaining long-term customer interest in the web site
- tracking customers/sales,

in accordance with instructor's guidelines.

*Suggested Evaluation Method*

Case study analysis, rated acceptable based on instructor's guidelines

*Related Aspects of Industry*

Planning

Management

Finance

Principles of Technology

Business/Community Relations

### **3.3 Compare Internet marketing with traditional marketing.**

#### *Essential Competency*

No

#### *Standard*

Comparison should include positive features of Internet marketing such as

- more eco-friendly
- more expansive
- less expensive
- interactive, not passive
- global, not local
- a permanent presence
- constantly updatable

and potential negative features such as

- not accessible to all citizens equally
- problems with security
- inventory problems

in accordance with instructor's guidelines.

#### *Suggested Evaluation Method*

Student-prepared annotated chart, rated acceptable based on instructor's guidelines

#### *Related Aspects of Industry*

Technical and Production Skills

Principles of Technology

Business/Community Relations

### **3.4 Describe criteria for identifying a potential web site product or service.**

#### *Essential Competency*

Yes

#### *Standard*

Description should include criteria that take into account factors such as marketing research data (including, but not limited to supply/demand, target markets, nature of product/service, profitability, competition), available human resources, available financial resources, and inventory/distribution issues, according to instructor's guidelines.

#### *Suggested Evaluation Method*

Case study analysis, rated acceptable based on instructor's guidelines

#### *Related Aspects of Industry*

Planning

Management

Technical and Production Skills

Principles of Technology

**3.5 Describe the Internet tools and methods used to market goods and services.**

*Essential Competency*

Yes

*Standard*

Description should include tools such as web pages, e-mail, banners, web site sponsorships, links, business directories, partnership development, and advertising, in accordance with instructor's guidelines.

*Suggested Evaluation Method*

Group project, rated acceptable based on instructor's guidelines

*Related Aspects of Industry*

Technical and Production Skills

Principles of Technology

**3.6 Explain how electronic commerce can be integrated into a marketing strategy.**

*Essential Competency*

Yes

*Standard*

Explanation should include possible approaches to integration, such as

- partnerships (leading to hyperlinks and other connections on the web site)
- expansion to international markets (revising web site with respect to cultural differences, exchange rates, shipping/customs information)

in accordance with instructor's guidelines.

*Suggested Evaluation Method*

Group project, rated acceptable based on instructor's guidelines

*Related Aspects of Industry*

Planning

Management

Technical and Production Skills

Principles of Technology

**3.7 Describe methods for promoting a web site.**

*Essential Competency*

Yes

*Standard*

Description should include promotional methods such as newspaper, broadcast media, business flyers/ brochures, letters, letterhead, business card, banners, and links on other web sites, according to instructor's guidelines.

*Suggested Evaluation Method*

Group project, rated acceptable based on instructor's guidelines

*Related Aspects of Industry*

Planning

Management

**3.8 Describe ways to use customer service for improving site performance.**

*Essential Competency*

Yes

*Standard*

Description should include back-end procedures, such as shopping carts, membership affiliates, and other techniques identified by students through web research, according to instructor's guidelines.

*Suggested Evaluation Method*

Internet-based research project, rated acceptable based on instructor's guidelines

*Related Aspects of Industry*

Planning

Finance

Principles of Technology

**3.9 Identify types of research for gathering information on customers and potential customers.**

*Essential Competency*

Yes

*Standard*

Identification should include requiring registration of visitors and completion of electronic survey to access site, analyzing search history of current viewers, and using cookies and other techniques, in accordance with instructor's guidelines.

*Suggested Evaluation Method*

Student-prepared chart comparing research techniques used in a variety of sites, rated acceptable based on instructor's guidelines

*Related Aspects of Industry*

Technical and Production Skills

Principles of Technology

**3.10 Describe the uses of databases as a marketing tool.**

*Essential Competency*

No

*Standard*

Description should include inventory control, customer information/profiles, research, distribution, and other uses, in accordance with instructor's guidelines.

*Suggested Evaluation Method*

Test, average or above rating

*Related Aspects of Industry*

Planning

Technical and Production Skills

**3.11 Explain target marketing and niche marketing in relation to electronic commerce.**

*Essential Competency*

Yes

*Standard*

Explanation should include the definition of target marketing and niche marketing and examples of how the two relate to electronic commerce in areas such as primary target audience, peripheral customers, and changing audiences, in accordance with instructor's guidelines.

*Suggested Evaluation Method*

Test, average or above

*Related Aspects of Industry*

Planning

Management

Technical and Production Skills

Principles of Technology

**3.12 Explain the potential roles of electronic commerce in a company's overall business plan.**

*Essential Competency*

Yes

*Standard*

Explanation should include roles such as

- providing product and related information
  - acquiring customer information
  - enhancing information exchange (company/customer; company/company),
- in accordance with instructor's guidelines.

*Suggested Evaluation Method*

Case study analysis, rated acceptable based on instructor's guidelines

*Related Aspects of Industry*

Planning

**3.13 Describe electronic marketing strategies most effective for business-to-business transactions.**

*Essential Competency*

Yes

*Standard*

Description should include strategies such as

- solicited e-mail ads
- search engine registration
- URL labeling
- association web site links
- imbedded links on other web sites
- consumer home page links

with illustrations of each, in accordance with instructor's guidelines.

*Suggested Evaluation Method*

Internet-based group project, rated acceptable based on instructor's guidelines

*Related Aspects of Industry*

Principles of Technology

Business/Community Relations

**3.14 Describe electronic marketing strategies most effective for business-to-customer transactions.**

*Essential Competency*

Yes

*Standard*

Description should include techniques such as

- banner ads
- tie-in ads
- unsolicited e-mail ads
- solicited e-mail ads
- search engine registration
- URL labeling
- imbedded links on other web sites

with illustrations of each, in accordance with instructor's guidelines.

*Suggested Evaluation Method*

Internet-based group project, rated acceptable based on instructor's guidelines

*Related Aspects of Industry*

Management

Principles of Technology

**3.15 Describe collection and payment options for web sites.**

*Essential Competency*

Yes

*Standard*

Description should include services that make shopping convenient, personable, and secure, in accordance with instructor's guidelines.

*Suggested Evaluation Method*

Written or oral description, rated acceptable based on instructor's guidelines

*Related Aspects of Industry*

Planning

Management

Finance

Technical and Production Skills

Principles of Technology

**3.16 Describe customer service as it relates to electronic commerce.**

*Essential Competency*

Yes

*Standard*

Description should include customer-friendly back-end procedures (e.g., shopping cart, membership affiliates) and methods by which a consumer can interact with a company electronically, in accordance with instructor's guidelines.

*Suggested Evaluation Method*

Internet-based research report, rated acceptable based on instructor's guidelines

*Related Aspects of Industry*  
Management  
Business/Community Relations

**Duty Area 4**  
**EXPLORING THE TECHNOLOGICAL ASPECTS**  
**OF WEB-BASED ELECTRONIC COMMERCE**

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- 4.1 Describe the function(s) of an electronic commerce web site.
- 4.2 Describe the infrastructure requirements of an electronic commerce web site.
- 4.3 Explain the concept of markup language.
- 4.4 Identify criteria for effective web site design.
- 4.5 Identify the advantages and disadvantages of outsourcing and in-house design and maintenance of a web site.
- 4.6 Describe the start-up and maintenance costs associated with a web site.
- 4.7 Distinguish between the concepts of personalization and mass customization.
- 4.8 Identify tools and steps necessary for designing a web site.
- 4.9 Identify steps for uploading a web site to a web server.
- 4.10 Describe the technology used to track customer/sales data on a web site.
- 4.11 Describe ways to use customer/sales data for improving site performance.
- 4.12 Create a business-to-customer web site.



**Duty Area 4**  
**EXPLORING THE TECHNOLOGICAL ASPECTS**  
**OF WEB-BASED ELECTRONIC COMMERCE**

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**4.1 Describe the function(s) of an electronic commerce web site.**

*Essential Competency*

Yes

*Standard*

Description should include functions such as advertising goods/services, selling goods/services, and collecting customer/sales data, in accordance with instructor's guidelines.

*Suggested Evaluation Method*

Written or oral presentation, rated acceptable based on instructor's guidelines

*Related Aspects of Industry*

Management

Technical and Production Skills

Principles of Technology

**4.2 Describe the infrastructure requirements of an electronic commerce web site.**

*Essential Competency*

Yes

*Standard*

Description should address infrastructure requirements such as the following:

- sufficient inventory to meet customer demand
- user friendly design (catalog use, questionnaire, financial transactions, follow-up)
- ease of updating to keep pace with changing marketplace
- security
- capability of accepting direct payment

and must be otherwise in accordance with instructor's guidelines.

*Suggested Evaluation Method*

Test, average or above rating

*Related Aspects of Industry*

Planning

Management

Technical and Production Skills

Principles of Technology

#### **4.3 Explain the concept of markup language.**

*Essential Competency*

Yes

*Standard*

Explanation should apply to a variety of markup languages (e.g., html, dhtml, xml) and should include strengths and limitations of markup languages, in accordance with instructor's guidelines.

*Suggested Evaluation Method*

Test, average or above rating

*Related Aspects of Industry*

Technical and Production Skills

Principles of Technology

#### **4.4 Identify criteria for effective web site design.**

*Essential Competency*

Yes

*Standard*

Identification should include criteria such as appropriately chosen and well-placed color, fonts, headings and text, and graphic images (including photographs); appropriate placement and functioning of frames, links, and icons; logical and efficient information architecture; reasonable download time; appropriate audio elements; enhancement of text clarity; adherence to accepted marketing principles regarding use of logos and branding; and other elements of design, according to instructor's guidelines.

*Suggested Evaluation Method*

Written criteria derived from student evaluation of a variety of web sites, rated acceptable based on instructor's guidelines

*Related Aspects of Industry*

Management

Principles of Technology

#### **4.5 Identify the advantages and disadvantages of outsourcing and in-house design and maintenance of a web site.**

*Essential Competency*

Yes

*Standard*

Identification should include a comparison of the advantages and disadvantages of outsourcing versus using in-house staff to design and maintain a web site, based on costs vs. benefits in each case, according to instructor's guidelines.

*Suggested Evaluation Method*

Student-produced chart, rated acceptable based on instructor's guidelines

*Related Aspects of Industry*

Planning

Management

Finance

**4.6 Describe the start-up and maintenance costs associated with a web site.**

*Essential Competency*

Yes

*Standard*

Description should include costs of business/marketing strategy, initial design, hosting fee, updating of information, maintenance, media placement, media information, and labor, according to instructor's guidelines.

*Suggested Evaluation Method*

Test, average or above rating

*Related Aspects of Industry*

Planning

Management

Finance

Technical and production Skills

**4.7 Distinguish between the concepts of personalization and mass customization.**

*Essential Competency*

Yes

*Standard*

Response should include a definition and examples of the concepts of personalization (e.g., inserting customer's name into messages) and of mass customization (e.g., ordering clothing to fit an individual customer's preferences) and an explanation of how the two differ, in accordance with instructor's guidelines.

*Suggested Evaluation Method*

Test, average or above rating

*Related Aspects of Industry*

Management

**4.8 Identify tools and steps necessary for designing a web site.**

*Essential Competency*

Yes

*Standard*

Identification should include steps such as defining the purpose of the site, determining content of the site, and selecting web authoring software, in accordance with instructor's guidelines.

*Suggested Evaluation Method*

Flowchart or storyboard, rated acceptable based on instructor's guidelines

*Related Aspects of Industry*

Technical and Production Skills

Principles of Technology

Business/Community Relations

**4.9 Identify steps for uploading a web site to a web server.**

*Essential Competency*

Yes

*Standard*

Identification should include a definition of file transfer protocol and an explanation of general protocol associated with uploading files and pages onto a web server, in accordance with instructor's guidelines.

*Suggested Evaluation Method*

Flowchart or list of steps, rated acceptable based on instructor's guidelines

*Related Aspects of Industry*

Technical and Production Skills

Principles of Technology

**4.10 Describe the technology used to track customer/sales data on a web site.**

*Essential Competency*

Yes

*Standard*

Description should include technology such as counters, trackers, and commercial sales data software, in accordance with instructor's guidelines.

*Suggested Evaluation Method*

Written report, rated acceptable based on instructor's guidelines

*Related Aspects of Industry*

Planning

Management

Technical and Production Skills

Principles of Technology

**4.11 Describe ways to use customer/sales data for improving site performance.**

*Essential Competency*

Yes

*Standard*

Description should include ways to use customer/sales data for site improvement, such as

- tailoring site to better serve existing customers
- revising site to draw new customer groups

in accordance with instructor's guidelines.

*Suggested Evaluation*

Group project, rated acceptable based on instructor's guidelines

*Related Aspects of Industry*

Planning

Management

Technical and Production Skills

Principles of Technology

#### **4.12 Create a business-to-customer web site.**

*Essential Competency*

No

*Standard*

Web site should meet criteria related to design, content, and function, in accordance with the acceptable principles of marketing and in accordance with instructor's guidelines.

*Suggested Evaluation*

Student-produced web site, rated acceptable based on instructor's guidelines

*Related Aspects of Industry*

Planning

Management

Technical and Production Skills

Principles of Technology

Business/Community Relations



**Duty Area 5**  
**EXPLORING THE ETHICAL, LEGAL, AND SECURITY**  
**ASPECTS OF ELECTRONIC COMMERCE**

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- 5.1 Explain legal issues related to electronic commerce.
- 5.2 Explain governmental policies related to electronic commerce.
- 5.3 Identify business-to-business electronic data interchange security concerns.
- 5.4 Examine business-to-consumer security concerns.
- 5.5 Explain security methods related to customer and company data.
- 5.6 Examine ethical issues related to electronic commerce.



**Duty Area 5**  
**EXPLORING THE ETHICAL, LEGAL, AND SECURITY**  
**ASPECTS OF ELECTRONIC COMMERCE**

---

**5.1 Explain legal issues related to electronic commerce.**

*Essential Competency*

Yes

*Standard*

Explanation should address issues such as copyright, patent, trademark and domain name protection, licensure, customs laws, Uniform Commercial Code for electronic commerce, regulation of content (especially in international arena), and regulation to prevent fraud, in accordance with instructor's guidelines.

*Suggested Evaluation Method*

Case study analysis, rated acceptable based on instructor's guidelines

*Related Aspects of Industry*

Management

Finance

**5.2 Explain governmental policies related to electronic commerce.**

*Essential Competency*

Yes

*Standard*

Explanation should address policies such as those related to taxation, regulation, and official statements (e.g., U.S. Framework for Global Electronic Commerce) and should include policies at the international, national, and state levels, in accordance with instructor's guidelines.

*Suggested Evaluation Method*

Case study analysis, rated acceptable based on instructor's guidelines

*Related Aspects of Industry*

Planning

Management

Labor Issues

Business/Community Relations

Health, Safety, and Environment

**5.3 Identify business-to-business electronic data interchange security concerns.**

*Essential Competency*

Yes

*Standard*

Identification should include security concerns such as hacking, attacking, secured servers, viruses, trojan horses, and other threats to data privacy, in accordance with instructor's guidelines.

*Suggested Evaluation Method*

Research project, rated acceptable based on instructor's guidelines

*Related Aspects of Industry*

Planning

Management

Principles of Technology

**5.4 Examine business-to-consumer security concerns.**

*Essential Competency*

Yes

*Standard*

Examination should include security concerns such as amateur hacking, privacy of data, credit card fraud, secured servers, cookies, and viruses, in accordance with instructor's guidelines.

*Suggested Evaluation Method*

Research project, rated acceptable based on instructor's guidelines

*Related Aspects of Industry*

Planning

Management

Principles of Technology

**5.5 Explain security methods related to customer and company data.**

*Essential Competency*

Yes

*Standard*

Explanation should include security methods such as data encryption, public key, firewalls, and other methods, in accordance with instructor's guidelines.

*Suggested Evaluation Method*

Test, average or above rating

*Related Aspects of Industry*

Planning

Management

Finance

Principles of Technology

## **5.6 Examine ethical issues related to electronic commerce.**

### *Essential Competency*

Yes

### *Standard*

Examination should address ethical issues such as use of data (e.g., respecting customer information, not selling information unless customer gives permission, not moving customer data when going to work for another company, not using cookies for unsavory purposes) and truth in advertising (e.g., keeping web site up to date with inventory, delivering product/service as promised in advertising), and should incorporate relevant information from the Electronic Communication Privacy Act of 1986 in accordance with instructor's guidelines.

### *Suggested Evaluation Method*

Case study analysis, rated acceptable based on instructor's guidelines

### *Related Aspects of Industry*

Management

Finance

Business/Community Relations



**Duty Area 6**  
**PREPARING FOR A CAREER IN ELECTRONIC MARKETING**

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- 6.1 Describe career opportunities in the field of electronic commerce.
- 6.2 Identify current job opportunities.
- 6.3 Identify the professional industrial certifications available within the electronic commerce industry.
- 6.4 Identify industry trends in electronic commerce.
- 6.5 Develop an electronic resume.
- 6.6 Prepare a professional portfolio.
- 6.7 Identify potential employment barriers to nontraditional groups and ways to overcome the barriers.
- 6.8 Identify the purposes and goals of the student organization.
- 6.9 Enhance leadership skills through participation in the student organization.



**Duty Area 6**  
**PREPARING FOR A CAREER IN ELECTRONIC MARKETING**

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**6.1 Describe career opportunities in the field of electronic commerce.**

*Essential Competency*  
Yes

*Standard*  
Description should include an annotated list of careers available within the field of electronic commerce, preparation required for each, opportunities for advancement, and employment trends in the field, in accordance with instructor's guidelines.

*Suggested Evaluation Method*  
Written or oral report, rated acceptable based on instructor's guidelines

*Related Aspects of Industry*  
Management  
Technical and Production Skills  
Principles of Technology

**6.2 Identify current job opportunities.**

*Essential Competency*  
Yes

*Standard*  
Identification should include searching job databanks, given an individual's abilities, interests, and aptitudes, and job expectations, in accordance with instructor's guidelines.

*Suggested Evaluation Method*  
Printout of Internet search, rated acceptable based on instructor's guidelines

*Related Aspects of Industry*  
Planning  
Technical and Production Skills

**6.3 Identify the professional industrial certifications available within the electronic commerce industry.**

*Essential Competency*  
Yes

*Standard*  
Identification should include current industrial certification standards (e.g., Novell Netscape, Novell Business Strategies, and Microsoft Front Page), in accordance with instructor's guidelines.

*Suggested Evaluation Method*  
Test, average or above rating

*Related Aspects of Industry*  
Technical and Production Skills  
Labor Issues

#### **6.4 Identify industry trends in electronic commerce.**

*Essential Competency*

Yes

*Standard*

Identification should include industry trends such as those related to technological advances; marketing practices; legal decisions; economic patterns; emergence of new customer groups; and directions in local, national, and international trade, in accordance with instructor's guidelines

*Suggested Evaluation Method*

Group research project, rated acceptable based on instructor's guidelines

*Related Aspects of Industry*

Technical and Production Skills

Principles of Technology

#### **6.5 Develop an electronic resume.**

*Essential Competency*

Yes

*Standard*

Resume should include complete, accurate, and effectively organized information and should follow additional criteria specifically related to electronic transmittal of such information (e.g., attention to security concerns, inclusion of META tags and other keywords to enhance hits, use of scanner-friendly format), in accordance with instructor's guidelines.

*Suggested Evaluation Method*

Resume suitable for electronic submission, rated acceptable based on instructor's guidelines

*Related Aspects of Industry*

Technical and Production Skills

Principles of Technology

#### **6.6 Prepare a professional portfolio.**

*Essential Competency*

No

*Standard*

Portfolio should include a resume and a combination of electronic and nonelectronic documents, in accordance with instructor's guidelines.

*Suggested Evaluation Method*

Portfolio, rated acceptable based on instructor's guidelines

*Related Aspects of Industry*

Technical and Production Skills

Principles of Technology

**6.7 Identify potential employment barriers to nontraditional groups and ways to overcome the barriers.**

*Essential Competency*

Yes

*Standard*

Identification of employment barriers should include those associated with factors such as gender, ethnicity, and age (e.g., education/training, informal networking, or discrimination in hiring and promoting) and ways to overcome the barriers (e.g., scholarships, job training programs, apprenticeships, mentorships, minority assistance programs), in accordance with instructor's guidelines.

*Suggested Evaluation Method*

Written or oral report rated acceptable based on instructor's guidelines.

*Related Aspects of Industry*

Planning

Management

Technical and Production Skills

Principles of Technology

Labor Issues

**6.8 Identify the purposes and goals of the student organization.**

*Essential Competency*

Yes

*Standard*

Purposes and goals should include

- leadership development
- enhancement of communication skills
- development of organizational, problem-solving, and decision-making skills
- participation as part of a team to accomplish a common goal
- mastery of rules of order governing the conduct of a meeting,

in accordance with organization's and instructor's guidelines.

*Suggested Evaluation Method*

Written or oral identification, rated acceptable based on instructor's guidelines.

*Related Aspects of Industry*

Management

Principles of Technology

**6.9 Enhance leadership skills through participation in the student organization.**

*Essential Competency*

Yes

*Standard*

Leadership skills should include activities such as meetings, programs, and projects that require specialized skills and concepts in areas related to electronic commerce, in accordance with instructor's guidelines.

*Suggested Evaluation Method*

Student demonstration, rated acceptable based on instructor's guidelines

*Related Aspects of Industry*

Principles of Technology

Business/Community Relations



### **Duty Area 7**

## **PLANNING FOR IMPLEMENTATION OF AN ELECTRONIC COMMERCE SITE**

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- 7.1 Explain the role of the web site in the overall marketing plan.
- 7.2 Develop a business plan for a web site.
- 7.3 Develop a marketing plan for a web site.



**Duty Area 7**  
**PLANNING FOR IMPLEMENTATION OF AN ELECTRONIC COMMERCE SITE**

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**7.1 Explain the role of the web site in the overall marketing plan.**

*Essential Competency*  
Yes

*Standard*  
Explanation should include the role of information, promotion, sales, follow-up, retention, and online product registration in the overall marketing plan.

*Suggested Evaluation Method*  
Group oral presentation, rated acceptable based on instructor's guidelines

*Related Aspects of Industry*  
Planning  
Management  
Technical and Production Skills  
Principles of Technology

**7.2 Develop a business plan for a web site.**

*Essential Competency*  
Yes

*Standard*  
Plan should include a description of the business, organization of the business, and a financial plan, in accordance with instructor's guidelines.

*Suggested Evaluation Method*  
Written plan, rated acceptable based on instructor's guidelines

*Related Aspects of Industry*  
Planning  
Management  
Finance

**7.3 Develop a marketing plan for a web site.**

*Essential Competency*  
Yes

*Standard*  
Plan should address

- initial efforts (marketing research)
- implementation (marketing strategies)
- web site monitoring and auditing

in accordance with instructor's guidelines.

*Suggested Evaluation Method*  
Written plan, rated acceptable based on instructor's guidelines

*Related Aspects of Industry*  
Planning  
Technical and Production Skills



## Related Academic Standards of Learning

The Marketing program incorporates and reinforces Virginia Standards of Learning (SOL). Identified below are specific SOL that are reinforced in this course. Local school divisions may wish to identify additional SOL as reflected in instructional activities and cooperative efforts with other disciplines. Academic SOL are an essential component of career and technical education and are required to be successful in an occupational field. The identification of related academic SOL that are reinforced through application in career and technical courses supports and enhances academic instruction.

### English Standards of Learning

#### *Grade Eleven*

- 11.1 The student will make persuasive presentations.
- Organize evidence to support a position.
  - Present evidence clearly and convincingly.
  - Support and defend ideas and thoughts in public forums.
- 11.2 The student will analyze and evaluate persuasive presentations.
- Critique the accuracy, relevance, and organization of evidence.
  - Critique the clarity and effectiveness of delivery.
- 11.3 The student will read and analyze relationships among American literature, history, and culture.
- Describe contributions of different cultures to the development of American literature.
  - Describe the development of American literature in the 17th, 18th, 19th, and 20th centuries.
  - Contrast periods in American literature.
  - Differentiate among archetypal characters in American literature.
  - Describe the major themes in American literature.
  - Describe how use of context and language structures conveys an author's point of view in contemporary and historical essays, speeches, and critical reviews.
- 11.4 The student will read a variety of print material.
- Use information from texts to clarify or refine understanding of academic concepts.
  - Read and follow directions to complete an application for college admission, a scholarship, or for employment.
  - Read and follow directions to complete a laboratory experiment.
  - Extend general and specialized vocabularies for reading and writing.
  - Generalize ideas from selections to make predictions about other texts.
- 11.6 The student will read a variety of dramatic selections.
- Describe the relationship between farce and characterization.
  - Describe the dramatic conventions or devices used by playwrights to present selected plays.
  - Explain the use of monologue and soliloquy.
  - Explain the use of verbal and dramatic irony.
- 11.7 The student will write in a variety of forms with an emphasis on persuasion.
- Develop a focus for writing.
  - Evaluate and cite applicable information.
  - Organize ideas in a logical manner.
  - Elaborate ideas clearly and accurately.
  - Adapt content, vocabulary, voice, and tone to audience, purpose, and situation.
  - Revise writing for accuracy and depth of information.
  - Edit final copies for correct use of language, spelling, punctuation, and capitalization.
- 11.8 The student will write, revise, and edit personal and business correspondence to a standard acceptable in the work place and higher education.
- Apply a variety of planning strategies to generate and organize ideas.
  - Organize information to support the purpose of the writing.
  - Present information in a logical manner.
  - Revise writing for clarity.
  - Edit final copies for correct use of language, spelling, punctuation, and capitalization.
  - Use available technology.

## English Standards of Learning (cont'd)

- 11.9 The student will analyze, evaluate, synthesize, and organize information from a variety of sources into a documented paper dealing with a question, problem, or issue.
- Narrow a topic.
  - Develop a plan for research.
  - Collect information to support a thesis.
  - Evaluate quality and accuracy of information.
  - Synthesize information in a logical sequence.
  - Document sources of information using a style sheet format, such as MLA or APA.
  - Revise writing for clarity of content.
  - Edit final copy for correct use of language, format, spelling, punctuation, and capitalization.
  - Use available technology.

### *Grade Twelve*

- 12.1 The student will make a 5-10 minute formal oral presentation.
- Choose the purpose of the presentation: to defend a position, to entertain an audience, or to explain information.
  - Use a well-structured narrative or logical argument.
  - Use details, illustrations, statistics, comparisons, and analogies to support purposes.
  - Use visual aids or technology to support presentation.
- 12.2 The student will evaluate formal presentations.
- Critique relationships among purpose, audience, and content of presentations.
  - Critique effectiveness of presentations.
- 12.3 The student will analyze the development of British literature and literature of other cultures.
- Recognize major literary forms and techniques.
  - Recognize the characteristics of major chronological eras.
  - Relate literary works and authors to major themes and issues of their eras.
- 12.4 The student will read a variety of print material.
- Identify information needed to conduct a laboratory experiment or product evaluation.
  - Draw conclusions regarding the quality of a product based on analysis of the accompanying warranty and instruction manual.
  - Evaluate the quality of informational texts and technical manuals.
  - Read and follow instructions to install a software program.
- 12.5 The student will read and critique a variety of poetry.
- Explain how the choice of words in a poem fits the speaker.
  - Explain how the sound of a poem (rhyme, rhythm, onomatopoeia, repetition, alliteration, assonance, and parallelism) supports the subject and mood.
  - Explain how imagery and figures of speech (personification, simile, metaphor) appeal to the reader's senses and experience.
  - Compare and contrast traditional and contemporary works of poets from many cultures.
- 12.6 The student will read and critique dramatic selections from a variety of authors.
- Describe the conflict, plot, climax, and setting.
  - Compare and contrast ways in which dialogue and staging contribute to the theme.
  - Identify the most effective elements of selected plays.
  - Compare and contrast dramatic elements of plays from American, British, and other cultures.
- 12.7 The student will develop expository and technical writings.
- Consider audience and purpose when planning for writing.
  - Present ideas in a logical sequence.
  - Elaborate ideas clearly and accurately.
  - Revise writing for depth of information and technique of presentation.
  - Edit final copies for correct use of language, spelling, punctuation, and capitalization.

## English Standards of Learning (cont'd)

- 12.8 The student will write documented research papers.
- Evaluate the accuracy and usefulness of information.
  - Synthesize information to support the thesis.
  - Present information in a logical manner.
  - Cite sources of information using a standard method of documentation.
  - Edit for correct use of language, capitalization, punctuation, and spelling in final copies.
  - Use available technology.

## History and Social Sciences Standards of Learning

### *Grade Twelve*

- 12.6 The student will analyze in writing, discussion, and debate current issues confronting local, state, and national governments in terms of perennial challenges to democracies, including conflicts between
- majority rule and minority rights;
  - individual rights and the public interest;
  - levels of taxation and the expectation of public services; and
  - state and national authority in a federal system.
- 12.7 The student will analyze and compare national and state governments, with emphasis on
- the structures, functions, and authority of each;
  - the principles of federalism, separation of powers, and checks and balances;
  - the extent to which power is shared rather than divided or separated; and
  - procedures for constitutional amendment.
- 12.10 The student will explain and give current examples of how political parties, interest groups, the media, and individuals influence the policy agenda and decision making of government institutions.
- 12.12 The student will explain the rights, responsibilities, and benefits of citizenship in the United States and Virginia.
- 12.14 The student will compare the United States political and economic systems with those of major democratic and authoritarian nations, in terms of
- the structures and powers of political institutions;
  - the rights and powers of the governed including grass roots citizen movements;
  - economic goals and institutions and the role of government in the economy;
  - the relationships between economic freedom and political freedom; and
  - the allocation of resources and its impact on productivity.
- 12.15 The student will analyze the United States market economy, in terms of
- labor, capital, and natural resources;
  - the interaction of supply and demand in markets;
  - the role of private ownership, private enterprise, and profits;
  - the relationships of households, firms, and government;
  - labor/management relationships; and
  - relationships to the global economy.
- 12.16 The student will analyze the role of government in the United States economy, with emphasis on
- monetary and fiscal policies;
  - interstate commerce and international trade policies;
  - providing favorable conditions for markets;
  - providing public goods and services;
  - protecting the environment; and
  - promoting economic growth.
- 12.17 The student will evaluate the effect of monetary and fiscal policies on personal economic well-being including employment opportunities, purchasing power, credit and interest rates, and opportunities for investment and savings.
- 12.18 The student will define common economic terms, including productivity, recession, depression, the business cycle, and inflation, and explain and interpret indicators of economic performance, including gross domestic product, consumer price index, unemployment rate, balance of trade, and stock market averages.

**Computer Mathematics Standards of Learning**

- COM.4 The student will use operating system commands, which include creating a new file, opening an existing file, saving a file, making a printed copy (hard copy) of the file, and executing a program.
- COM.8 The student will design and implement computer graphics, which will include topics appropriate for the available programming environment as well as student background. Students will use graphics as an end in itself, as an enhancement to other output, and as a vehicle for reinforcing programming techniques.
- COM.14 The student will implement conditional statements that include if/then, if/then/else, case statements, and Boolean logic.
- COM.21 The student will design, write, test, debug, and document a complete structured program which requires the synthesis of many of the concepts contained in previous standards.
- COM.22 The student will solve practical consumer problems that involve analyzing and interpreting graphs, charts, and/or tables.

# Appendix



## All Aspects of the Industry



## Understanding All Aspects of the Industry

The Carl D. Perkins Vocational and Technical Education Act requires that career and technical education programs give students an overview of the broad elements of the field that they are studying. These elements, called “All Aspects of the Industry,” include planning; management; finance; technical and production skills; principles of technology; labor; business/community relations; and health, safety, and environment. Based on these elements, “Related Aspects of Industry” have been suggested for most task/competencies in this Marketing guide. The further information offered below is based on data validated by a Virginia business and industry panel for *A Guide to Business Course Competencies*, 1996. It is printed here as a resource for teachers seeking ways to incorporate All Aspects of the Industry into their Marketing courses.

1. Identify key elements of **planning** that an employee should know to succeed in the industry.

Key elements of planning include the following:

- The planning process, including a company’s mission, goals, and objectives
- The internal and external customers and advantages of responding to their wants and expectations
- Comparison of companies delivering products and those delivering services
- Various tools for planning
- Ways companies use input from employees to make decisions
- Anticipated technology and other major purchasing needs
- Effects of regulatory laws on operation
- Ways political or labor organization groups can influence company operation
- Methods of forecasting trends

2. Identify key elements of **management** that an employee should know to succeed in the industry.

Key elements of management include the following:

- Purposes and key components of a company vision and mission statements
- Organization chart that explains a corporate chain of command
- Approaches to management and supervision common to this industry
- Significance of a company’s corporate culture and climate
- Comparison of various types of business ownerships
- Interrelationship of a company and the local/state/national economy
- Effects of cultural diversity on business
- Functions of written policies and procedures
- Role of professional organizations
- Ways in which a company’s image affects employees
- Recruitment procedures, training opportunities, evaluation methods, and retention strategies found in this industry’s workplace

3. Identify key elements of **finance** that an employee should know to succeed in industry.

Key elements of finance include the following:

- Sources of business capital
- Necessity for keeping financial records
- Credit policies and advantages and disadvantages of giving credit to customers
- Common payroll deductions
- Methods of sustaining profitability of a business
- Effects of taxes on a business
- Impact of cash flow on an organization
- Impact of the economy on business

4. Identify **technical and production skills** that an employee should have to succeed in the industry.

Technical and production skills include the following:

- Negotiation and conflict resolution skills
- Time management techniques
- Basic computer operations
- Description of the importance of project management
- Participation in team efforts
- Troubleshooting and problem-solving techniques
- Acquisition and analysis of information necessary to make decisions
- Methods of quality assurance
- Communication skills (e.g., writing, listening, speaking, reading)
- Customer service skills

5. Identify **principles of technology** that an employee should know to succeed in the industry.

Principles of technology include the following:

- Major uses of technology in the industry
- Potential impacts of new equipment on the company
- Importance of continuous upgrading of employee skills
- Importance of cross-training

6. Identify **labor** issues that an employee should know to succeed in the industry.

Labor issues include the following:

- Uses of a written job description
- Local, state, and federal legislation affecting employer and employee rights
- Barriers to employment or job success faced by nontraditional and minority workers, and ways to overcome these barriers
- Comparison of the pay and benefits accorded hourly and salaried employees
- Major differences between self-employment and working for a company
- Career enhancement programs and advantages of participating in such a program

- Certification requirements for a specific job in this industry
- Impact of a labor agreement on the operation of a business
- Impact of indirect wage costs (e.g., benefits, FICA, insurance, worker's compensation) on the operation of a business

7. Identify concepts of **business/community relations** that an employee should know to succeed in the industry.

Concepts of business/community relations includes the following:

- Implications of being a good corporate citizen
- Ways companies and communities can help each other
- Potential effects of the public perception of a company or this industry
- Ways in which the individual employee can reflect on a company's image

8. Identify concepts of **health, safety, and environment** that an employee should know to succeed in the industry.

Concepts of health, safety, and environment include the following:

- Major federal, state, and local regulations related to the health and safety of employees
- Major federal, state, and local environmental regulations related to the industry
- Job-specific health hazards
- Basic safety and first aid training techniques
- Signs and sources of stress and ways of handling it
- Examples of ways ergonomics has been incorporated into the workplace
- Steps that employees can take in maintaining a safe workplace