

**Florida Department of Education
STUDENT PERFORMANCE STANDARDS**

Course Number: 8207310
Course Title: Introduction to Information Technology
Course Credit: 1

COURSE DESCRIPTION:

This course is designed to provide an introduction to information technology concepts and careers as well as the impact information technology has on the world, people, and industry and basic web design concepts. The content includes information technology career research; operating systems and software applications; electronic communications including e-mail and Internet services; basic web commands and design; and emerging technologies. After successful completion of Introduction to Information Technology, students will have met Occupational Completion Point - Data Code A, General Office - SOC Code 43-9061.

INFORMATION SYSTEMS

02.0 DEMONSTRATE KNOWLEDGE, SKILL, AND APPLICATION OF INFORMATION SYSTEMS TO ACCOMPLISH JOB OBJECTIVES AND ENHANCE WORKPLACE PERFORMANCE-The student will be able to:

- 01.01 Develop keyboarding skills to enter and manipulate text and data.
- 01.02 Describe and use current and emerging computer technology and software to perform personal and business related tasks.
- 01.03 Identify and describe communications and networking systems used in workplace environments.
- 01.04 Use reference materials such as on-line help, vendor bulletin boards, tutorials, and manuals available for application software.
- 01.05 Troubleshoot problems with computer hardware peripherals and other office equipment.
- 01.07 Describe ethical issues and problems associated with computers and information systems.

WORKPLACE COMMUNICATIONS

02.0 DEMONSTRATE COMPREHENSION AND COMMUNICATION SKILLS-The student will be able to:

- 02.03 Use listening, speaking, telecommunication and nonverbal skills and strategies to communicate effectively with supervisors, co-workers, and customers.
- 02.62 Organize ideas and communicate oral and written messages appropriate for information technology environments.
- 02.63 Collaborate with individuals and teams to complete tasks and solve information technology problems.
- 02.64 Identify, define, and discuss professional information technology terminology appropriate for internal and external communications in an information technology environment.
- 02.65 Apply the writing process to the creation of appropriate documents following designated business formats.
- 02.66 Demonstrate an awareness of project management concepts and tools (e.g., timelines, deadlines, resource allocation, time management, delegation of tasks, collaboration, etc.).

03.0 USE TECHNOLOGY TO ENHANCE THE EFFECTIVENESS OF COMMUNICATION SKILLS-The student will be able to:

03.03 Use database, spreadsheet, presentation software, scheduling, and integrated software packages to enhance communication.

03.06 Respond to and utilize information derived from multiple sources (e.g., written documents, instructions, e-mail, voice mail) to solve business problems and complete business tasks.

MANAGEMENT

04.0 DEVELOP AN AWARENESS OF MANAGEMENT FUNCTIONS AND ORGANIZATIONAL STRUCTURES AS THEY RELATE TO TODAY'S WORKPLACE AND EMPLOYER/ EMPLOYEE ROLES-The student will be able to:

04.01 Explore, design, implement, and evaluate organizational structures and cultures. Explore and demonstrate an awareness of current trends in business and the employee's role in maintaining productive business environments in today's global workplace.

04.02 Collaborate with individuals and teams to complete tasks and solve business-related problems and demonstrate initiative, courtesy, loyalty, honesty, cooperation, and punctuality as a team member.

05.0 PRACTICE QUALITY PERFORMANCE IN THE LEARNING ENVIRONMENT AND THE WORKPLACE-The student will be able to:

05.01 Assess personal, peer and group performance and identify and implement strategies for improvement (e.g., organizational skills, note taking/outlining, advance organizers, reasoning skills, problem-solving skills, and decision-making skills).

05.02 Develop criteria for assessing products and processes that incorporate effective business practices (e.g., time management, productivity, total quality management).

06.0 INCORPORATE APPROPRIATE LEADERSHIP AND SUPERVISION TECHNIQUES, CUSTOMER SERVICE STRATEGIES, AND STANDARDS OF PERSONAL ETHICS TO ACCOMPLISH JOB OBJECTIVES AND ENHANCE WORKPLACE PERFORMANCE-The student will be able to:

06.03 Demonstrate awareness of the following workplace essentials: Quality customer service; business ethics; confidentiality of information; copyright violations; accepted workplace rules, regulations, policies, procedures, processes, and workplace safety, and appropriate attire and grooming.

MATHEMATICS AND FINANCE

07.0 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:

07.01 Analyze, interpret, compile, and demonstrate the ability to present/communicate data in understandable and measurable terms using common statistical procedures.

07.02 Use common standards of measurement including the metric system in solving work-related or business problems (e.g., length, weight, currency, time).

- 07.03 Select and use the correct mathematical processes and tools to solve complex problem situations that are typical of business settings and use formulas when appropriate.

JOB READINESS AND CAREER DEVELOPMENT

- 08.0 ASSESS PERSONAL STRENGTHS AND WEAKNESSES AS THEY RELATE TO JOB OBJECTIVES, CAREER EXPLORATION, PERSONAL DEVELOPMENT, AND LIFE GOALS-The student will be able to:
 - 08.02 Use personal assessment tools to identify personal strengths and weaknesses related to learning and work environments.
 - 08.03 Analyze job and career requirements and relate career interests to opportunities in the global economy.
- 09.0 INCORPORATE KNOWLEDGE GAINED FROM INDIVIDUAL ASSESSMENT AND JOB/CAREER EXPLORATION TO DESIGN AN INDIVIDUAL CAREER PLAN THAT REFLECTS THE TRANSITION FROM SCHOOL TO WORK, LIFELONG LEARNING, AND PERSONAL AND PROFESSIONAL GOALS-The student will be able to:
 - 09.15 Research, compare, and contrast information technology career clusters (e.g., characteristics needed, skills required, education required, industry certifications, advantages and disadvantages of information technology careers, the need for information technology workers, etc.).
 - 09.16 Describe the variety of occupations and professions within the world of information technology including those where information technology is either in a primary focus or in a supportive role.
 - 09.17 Describe job requirements for the variety of occupations and professions within the global world of information technology.
 - 09.18 Analyze personal skills and aptitudes in comparison with information technology career opportunities.
 - 09.19 Refine and implement a plan to facilitate personal growth and skill development related to information technology career opportunities.
 - 09.20 Develop and maintain an electronic career portfolio, to include, but not limited to the Resume and Letter of Application.
- 10.0 DEMONSTRATE HUMAN RELATIONS/INTERPERSONAL SKILLS APPROPRIATE FOR THE WORKPLACE-The student will be able to:
 - 10.01 Accept constructive criticism.
 - 10.03 Demonstrate personal and interpersonal skills appropriate for the workplace (e.g., responsibility, dependability, punctuality, integrity, positive attitude, initiative, respect for self and others, professional dress, etc.).

WORK-BASED LEARNING

- 20.0 PARTICIPATE IN WORK-BASED LEARNING EXPERIENCES-The student will be able to:
 - 20.44 Participate in work-based learning experiences in an information technology environment.
 - 20.46 Discuss the use of technology in an information technology environment.

NETWORK/SOFTWARE SUPPORT

- 41.0 PERFORM E-MAIL ACTIVITIES-The student will be able to:

- 41.01 Describe e-mail capabilities and functions.
- 41.02 Identify components of an e-mail message.
- 41.03 Identify the components of an e-mail address.
- 41.04 Identify when to use different e-mail options.
- 41.05 Attach a file to an e-mail message.
- 41.06 Forward an e-mail message.
- 41.07 Use an address book.
- 41.08 Reply to an e-mail message.
- 41.09 Use the Internet to perform e-mail activities.
- 41.10 Identify the appropriate use of e-mail and demonstrate related e-mail etiquette.
- 41.12 Identify when to include information from an original e-mail message in a response.
- 41.13 Identify common problems associated with widespread use of e-mail.

42.0 DEMONSTRATE KNOWLEDGE OF DIFFERENT OPERATING SYSTEMS—The student will be able to:

- 42.01 Identify operating system file naming conventions.
- 42.10 Demonstrate proficiency with file management and structure (e.g., folder creation, file creation, backup, copy, delete, open, save).
- 42.12 Demonstrate a working knowledge of standard file formats.
- 42.14 Explain the history and purpose of various operating systems (e.g., DOS, Windows, Mac, and Unix/Linux).

WEB DESIGN

55.0 DEMONSTRATE PROFICIENCY NAVIGATING THE INTERNET, INTRANET, AND THE WWW—The student will be able to:

- 55.01 Identify and describe Web terminology.
- 55.10 Demonstrate proficiency in using the basic features of GUI browsers (e.g., setting bookmarks, basic configurations, e-mail configurations, address book).
- 55.11 Define Universal Resource Locators (URLs) and associated protocols (e.g., .com, .org, .edu, .gov, .net, .mil).
- 55.14 Describe and observe Internet/Intranet ethics and copyright laws and regulatory control.
- 55.15 Trace the evolution of the Internet from its inception to the present and into the future.
- 55.16 Demonstrate proficiency using search engines (e.g., Yahoo!, Google, Northern Light, Lycos, Excite, etc.).
- 55.17 Demonstrate proficiency using various web tools (e.g., downloading of files, transfer of files, telnet, PDF, etc.).
- 55.18 Identify effective Boolean search strategies.

56.0 DEMONSTRATE PROFICIENCY USING HTML COMMANDS—The student will be able to:

- 56.01 Identify elements of a Web page.
- 56.02 Describe individual Web page layouts and content (e.g., writing for the Web, Web structure).
- 56.03 Define basic HTML terminology.
- 56.04 Analyze HTML source code developed by others.
- 56.05 Create Web pages using basic HTML tags (e.g., links, lists, character styles, text alignment, and tables).
- 56.06 Use storyboarding techniques for subsequent Web pages (e.g., linear, hierarchical).

- 56.08 Edit and test HTML documents for accuracy and validity.
- 56.17 Use basic functions of WYSIWYG editors.
- 56.18 Use basic functions of HTML, DHTML, and XML editors and converters.
- 56.19 Enhance web pages through the addition of images and graphics including animation.

57.0 DEMONSTRATE PROFICIENCY IN PAGE DESIGN APPLICABLE TO THE WWW-The student will be able to:

- 57.01 Develop an awareness of acceptable Web page design, including index pages in relation to the rest of the Web site.
- 57.02 Describe and apply color theory as it applies to Web page design (e.g., background and text color).
- 57.04 Access and digitize graphics through various resources (e.g., scanner, digital cameras, on-line graphics, clipart, CD ROMs).
- 57.05 Use image design software to create and edit images.
- 57.25 Demonstrate proficiency in publishing to the Internet.
- 57.26 Demonstrate proficiency in adding downloadable forms to web pages.
- 57.27 Explain the need for web-based applications.

63.0 DEMONSTRATE PROFICIENCY USING SPECIALIZED WEB DESIGN SOFTWARE-The student will be able to:

- 63.01 Compare and contrast various specialized web design software (e.g., Flash, Shockwave, GoLive, Director, etc.).
- 63.02 Demonstrate use of various specialized web design software (e.g., Flash, Shockwave, GoLive, Director, etc.).

INFORMATION TECHNOLOGY

64.0 DEVELOP AN AWARENESS OF THE INFORMATION TECHNOLOGY INDUSTRY-The student will be able to:

- 64.01 Explain how information technology impacts the operation and management of business and society.
- 64.04 Explain the emergence of e-commerce and e-government and the potential impact on business and society.
- 64.05 Explain the emergence of a paperless society.

65.0 DEVELOP AN AWARENESS OF MICROPROCESSORS AND DIGITAL COMPUTERS-The student will be able to:

- 65.01 Describe the evolution of the digital computer.
- 65.02 Explain the general architecture of a microcomputer system.
- 65.03 Explain the evolution of microprocessors.
- 65.04 Explain software hierarchy and its impact on microprocessors.
- 65.05 Explain the need for and use of peripherals.
- 65.06 Demonstrate proficiency using peripherals.
- 65.07 Identify the basic concepts of computer maintenance and upgrades.
- 65.08 Differentiate between diagnosing and troubleshooting.

66.0 DEVELOP AN AWARENESS OF PROGRAMMING LANGUAGES-The student will be able to:

- 66.01 Explain the history of programming languages.
- 66.02 Explain the need for and use of compilers.
- 66.03 Explain how compilers work.

66.04 Identify the three types of programming design approaches (e.g., top-down, structured, and object-oriented).

67.0 DEVELOP AN AWARENESS OF EMERGING TECHNOLOGIES-The student will be able to:

67.01 Compare and contrast various methods of evaluation for emerging technologies.

67.02 Demonstrate knowledge of the process of planning upgrades and changeovers.

67.03 Compare and contrast emerging technologies and describe how they impact business in the global marketplace (e.g., wireless, wireless web, cell phones, portables/handhelds, smart appliances, home networks, peer-to-peer, etc.).

69.0 DEMONSTRATE AN UNDERSTANDING OF THE SEVEN LAYERS OF THE OPEN SYSTEMS INTERFACE (OSI) MODEL-The student will be able to:

69.01 Describe the evolution of OSI from its inception to the present and into the future.

69.02 Explain the interrelations of the seven layers of the Open Systems Interface (OSI) as it relates to hardware and software.

69.04 Identify types of networks and how they work.

69.06 Identify the role of servers and clients on a network.

69.07 Identify benefits and risks of networked computing.

69.08 Identify the relationship between computer networks and other communications networks (i.e. telephone systems).

69.09 Identify Intranets, Extranets and how they relate to the Internet.

69.11 Demonstrate basic understanding of network administration.

SOFTWARE APPLICATIONS

70.0 DEMONSTRATE PROFICIENCY USING COMMON SOFTWARE APPLICATIONS-The student will be able to:

70.01 Compare and contrast the appropriate use of various software applications (e.g., word processing, desktop publishing, graphics design, web browser, e-mail, presentation, database, scheduling, financial management, Java applet, music, etc.).

70.02 Demonstrate proficiency in the use of various software applications (e.g., word processing, desktop publishing, graphics design, web browser, e-mail, presentation, database, scheduling, financial management, Java applet, music, etc.).

71.0 DEMONSTRATE PROFICIENCY USING SPECIALIZED SOFTWARE APPLICATIONS-The student will be able to:

71.01 Compare and contrast the appropriate use of specialized software applications (e.g., (OLTP, Computer Aided Design, Computer Aided Manufacturing, 3D animation process control, materials management, etc.).

71.02 Demonstrate awareness of specialized software applications (e.g., OLTP, Computer Aided Design, Computer Aided Manufacturing, 3D animation, process control, materials management, etc.)

71.06 Demonstrate the ability to incorporate digital sound.