# Information Technology Career Cluster Information Technology Support Course Number: 11.42000

# **Course Description:**

How do you make the device work? Students will apply Information Technology Essentials skills to diagnose and correct computer problems. By building knowledge and skill, students will install, build, upgrade, repair, configure, troubleshoot, and perform preventative maintenance on computer hardware, operating systems, laptops, and portable devices. Practical and hands-on experience of troubleshooting and maintenance will allow students to demonstrate mastery of skills.

Various forms of technologies will be used to expose students to resources, software, and applications of computer repair. Professional communication skills and practices, problem-solving, ethical and legal issues, and the impact of effective presentation skills are enhanced in this course to prepare students to be college and career ready. Employability skills are integrated into activities, tasks, and projects throughout the course standards to demonstrate the skills required by business and industry. Competencies in the co-curricular student organizations are integral components of both the employability skills standards and content standards for this course.

Information Technology Support is the third course in the Information Support and Services pathway in the Information Technology cluster. Students enrolled in this course should have successfully completed Introduction to Hardware Technology and Information Technology Essentials. After mastery of the standards in this course, students should be prepared to take the end of pathway assessment in this career area.

# **Course Standard 1**

#### IT-ITS-1

The following standard is included in all CTAE courses adopted for the Career Cluster/Pathways. Teachers should incorporate the elements of this standard into lesson plans during the course. The topics listed for each element of the standard may be addressed in differentiated instruction matching the content of each course. These elements may also be addressed with specific lessons from a variety of resources. This content is not to be treated as a unit or separate body of knowledge but rather integrated into class activities as applications of the concept.

# Standard: Demonstrate employability skills required by business and industry.

The following elements should be integrated throughout the content of this course.

1.1 Communicate effectively through writing, speaking, listening, reading, and interpersonal abilities.

Person-to-Person	Telephone and	Cell Phone and	Communicating At	Listening
Etiquette	Email Etiquette	Internet Etiquette	Work	o o
Interacting with	Telephone	Using Blogs	Improving	Reasons, Benefits,
Your Boss	Conversations		Communication Skills	and Barriers
Interacting with	Barriers to Phone	Using Social Media	Effective Oral	Listening Strategies
Subordinates	conversations		Communication	
Interacting with	Making and		Effective Written	Ways We Filter
Co-workers	Returning Calls		Communication	What We Hear
Interacting with	Making Cold Calls		Effective Nonverbal	Developing a
Suppliers			Skills	Listening Attitude
	Handling		Effective Word Use	Show You Are
	Conference Calls			Listening
	Handling		Giving and Receiving	Asking Questions
	Unsolicited Calls		Feedback	-
				Obtaining Feedback

		Getting Others to
		Listen

Nonverbal	Written	Speaking	Applications and Effective
Communication	Communication		Résumés
Communicating	Writing Documents	Using Language	Completing a Job Application
Nonverbally		Carefully	
Reading Body Language	Constructive	One-on-One	Writing a Cover Letter
and Mixed Messages	Criticism in Writing	Conversations	
Matching Verbal and		Small Group	Things to Include in a Résumé
Nonverbal communication		Communication	
Improving Nonverbal		Large Group	Selling Yourself in a Résumé
Indicators		Communication	
Nonverbal Feedback		Making Speeches	Terms to Use in a Résumé
Showing Confidence		Involving the	Describing Your Job Strengths
Nonverbally		Audience	
Showing Assertiveness		Answering Questions	Organizing Your Résumé
		Visual and Media Aids	Writing an Electronic Résumé
		Errors in Presentation	Dressing Up Your Résumé

# 1.2 Demonstrate creativity by asking challenging questions and applying innovative procedures and methods.

Teamwork and Problem Solving	Meeting Etiquette	
Thinking Creatively	Preparation and Participation in Meetings	
Taking Risks	Conducting Two-Person or Large Group Meetings	
Building Team Communication	Inviting and Introducing Speakers	
	Facilitating Discussions and Closing	
	Preparing Visual Aids	
	Virtual Meetings	

1.3 Exhibit critical thinking and problem-solving skills to locate, analyze and apply information in career planning and employment situations.

Problem	Customer Service	The Application Process	Interviewing	Finding the Right
Solving			Skills	Job
Transferable	Gaining Trust and	Providing Information,	Preparing for an	Locating Jobs and
Job Skills	Interacting with	Accuracy and Double	Interview	Networking
	Customers	Checking		
Becoming a	Learning and	Online Application	Questions to Ask in	Job Shopping
Problem Solver	Giving Customers	Process	an Interview	Online
	What They Want			
Identifying a	Keeping Customers	Following Up After	Things to Include in	Job Search
Problem	Coming Back	Submitting an Application	a Career Portfolio	Websites
Becoming a	Seeing the	Effective Résumés:	Traits Employers	Participation in Job
Critical Thinker	Customer's Point		are Seeking	Fairs
Managing	Selling Yourself and	Matching Your Talents to	Considerations	Searching the
	the Company	a Job	Before Taking a Job	Classified Ads
	Handling Customer	When a Résumé Should		Using Employment
	Complaints	be Used		Agencies
	Strategies for			Landing an
	Customer Service			Internship
				Staying Motivated
				to Search

1.4 Model work readiness traits required for success in the workplace including integrity, honesty, accountability, punctuality, time management, and respect for diversity.

Workplace	Personal	Employer Employer	<b>Business Etiquette</b>	Communicating at
Ethics	Characteristics	Expectations	•	Work
Demonstrating	Demonstrating a	Behaviors Employers	Language and	Handling Anger
Good Work Ethic	Good Attitude	Expect	Behavior	
Behaving	Gaining and	Objectionable	Keeping Information	Dealing with
Appropriately	Showing Respect	Behaviors	Confidential	Difficult Coworkers
Maintaining	Demonstrating	Establishing	Avoiding Gossip	Dealing with a
Honesty	Responsibility	Credibility		Difficult Boss
Playing Fair	Showing	Demonstrating Your	Appropriate Work	Dealing with
	Dependability	Skills	Email	Difficult Customers
Using Ethical	Being Courteous	Building Work	Cell Phone Etiquette	Dealing with Conflict
Language		Relationships		
Showing	Gaining		Appropriate Work	
Responsibility	Coworkers' Trust		Texting	
Reducing	Persevering		Understanding	
Harassment			Copyright	
Respecting	Handling		Social Networking	
Diversity	Criticism			
Making	Showing			
Truthfulness a	Professionalism			
Habit				
Leaving a Job				
Ethically				

1.5 Apply the appropriate skill sets to be productive in a changing, technological, diverse workplace to be able to work independently and apply teamwork skills.

Expected Work Traits	Teamwork	Time Management
Demonstrating Responsibility	Teamwork Skills	Managing Time
Dealing with Information Overload	Reasons Companies Use Teams	Putting First Things First
Transferable Job Skills	Decisions Teams Make	Juggling Many Priorities
Managing Change	Team Responsibilities	Overcoming Procrastination
Adopting a New Technology	Problems That Affect Teams	Organizing Workspace and Tasks
	Expressing Yourself on a Team	Staying Organized
	Giving and Receiving Constructive	Finding More Time
	Criticism	
_		Managing Projects
		Prioritizing Personal and Work Life

1.6 Present a professional image through appearance, behavior, and language.

On-the-Job Etiquette	Person-to-Person Etiquette	<b>Communication Etiquette</b>	<b>Presenting Yourself</b>
Using Professional	Meeting Business	Creating a Good Impression	Looking Professional
Manners	Acquaintances		
Introducing People	Meeting People for the First	Keeping Phone Calls	Dressing for Success
	Time	Professional	
Appropriate Dress	Showing Politeness	Proper Use of Work Email	Showing a Professional
			Attitude
Business Meal		Proper Use of Cell Phone	Using Good Posture
Functions			
Behavior at Work		Proper Use in Texting	Presenting Yourself to
Parties			Associates
Behavior at			Accepting Criticism
Conventions			

International Etiquette		Demonstrating Leadership
Cross-Cultural Etiquette		
Working in a Cubicle		

# **Course Standard 2**

#### IT-ITS-2

# Apply knowledge and skills to install, configure, optimize, and upgrade printers and scanners.

- 2.1 Identify tools and diagnostic procedures to troubleshoot printers and scanners.
- 2.2 Install and configure printers/scanners to local machine and network.
- 2.3 Gather information about printer/scanner problems and research solution options.
- 2.4 Apply identified solutions to printer/scanner problems.
- 2.5 Isolate and resolve an identified printer/scanner problem including defining the cause, applying the fix, and verifying functionality.
- 2.6 Identify appropriate tools used for troubleshooting and repairing printer/scanner problems.

# **Course Standard 3**

#### IT-ITS-3

# Apply knowledge and skills of network devices to install and configure network devices.

- 3.1 Install and configure physical and wireless network cards.
- 3.2 Install, identify, and obtain wired and wireless connection.
- 3.3 Identify the fundamental principles of networks.
- 3.4 Describe basic networking concepts.
- 3.5 Identify names, purposes and characteristics of the common network cables, network connectors, and for establishing connectivity.
- 3.6 Establish network connectivity.
- 3.7 Demonstrate the ability to share network resources.
- 3.8 Identify tools, diagnostic procedures and troubleshooting techniques for network devices.

# **Course Standard 4**

### IT-ITS-4

# Identify the fundamentals and principles of security.

- 4.1 Identify names, purposes, and characteristics of hardware and software, wireless security, and data and physical security.
- 4.2 Describe the importance and process of incident reporting.
- 4.3 Recognize and respond appropriately to social engineering situations.
- 4.4 Identify the purposes and characteristics of access control.
- 4.5 Identify the purposes and characteristics of auditing and event logging.

#### Course Standard 5

#### IT-ITS-5

# Apply knowledge and skills to install, configure, upgrade, and optimize security.

5.1 Install, configure, upgrade, and optimize hardware, software, and data security.

- 5.2 Install antivirus and malware software.
- 5.3 Identify tool, diagnostic procedures and troubleshooting techniques for security.
- 5.4 Diagnose and troubleshoot hardware, software, and data security issues.
- 5.5 Diagnose and troubleshoot software and data security issues.
- 5.6 Perform preventative maintenance for computer security.
- 5.7 Implement software security preventative maintenance techniques, such as installing service packs and patches and training users about malicious software prevention technologies.

# **Course Standard 6**

#### IT-ITS-6

Describe the aspects and importance of safety and environmental issues with computer support and services.

- 6.1 Identify potential safety hazards and take preventive action to maintain a safe and environmentally clean work environment.
- 6.2 Use appropriate repair tools.
- 6.3 Describe methods to handle environmental and human (e.g., electrical, chemical, physical) accidents including incident reporting.
- 6.4 Identify potential hazards and implement proper safety procedures, including precautions and procedures, safe work environment, and equipment handling.

# **Course Standard 7**

#### IT-ITS-7

# Perform maintenance procedures on laptops and portable devices.

- 7.1 Complete maintenance procedures on laptops and portable devices.
- 7.2 Identify appropriate applications for laptop-specific communication connections such as Bluetooth, infrared, cellular WAN and Ethernet.
- 7.3 Identify tools, basic diagnostic procedures, and troubleshooting techniques for laptops and portable devices.
- 7.4 Perform preventative maintenance on laptops and portable devices.
- 7.5 Demonstrate how to restore laptop and portable device to proper function mode.

# **Course Standard 8**

#### IT-ITS-8

Use job-related professional behavior in language, interaction and communication including notation of privacy, confidentiality, and respect for the customer property.

- 8.1 Demonstrate professional behavior towards customers in language, personal interaction (in person, phone, video conference), and communication methods.
- 8.2 Research privacy laws and legal actions for accessing, sharing, and reporting customer data.
- 8.3 Establish a professional policy for handling privacy, confidentiality, and customer data.
- 8.4 Model professional behavior towards customer's property when completing work.
- 8.5 Display good communication skills and professionalism while working with customers.
- 8.6 Clarify customer statements by asking pertinent questions related to expected job performance using language customer can understand.

# **Course Standard 9**

#### IT-ITS-9

# Organize personal online career portfolio for specific career interests.

- 9.1 Review and update résumé to reflect new knowledge and skills master and additional work experience.
- 9.2 Organize folders within the portfolio to reflect specific careers of interest, including résumé, targeted cover letter, and artifacts relevant to the specific career.
- 9.3 Update all current items in the portfolio.
- 9.4 Identify and upload additional industry-appropriate artifacts reflective of mastered skills throughout this course. Write and include a reflective entry for each artifact discussing steps taken, problems encountered and how they were overcome, and other pertinent information about the learning.
- 9.5 Polish all entries in the online career portfolio to ensure accuracy and professionalism as expected from employers.
- 9.6 Conduct a job search and share the appropriate folder with the potential employer.

# **Course Standard 10**

### IT-ITS-10

Explore how related student organizations are integral parts of career and technology education courses through leadership development, school and community service projects, entrepreneurship development, and competitive events.

- 10.1 Explain the goals, mission, and objectives of Future Business Leaders of America (FBLA) and/or Technology Student Association (TSA) and/or SkillsUSA.
- 10.2 Explore the impact and opportunities a student organization (FBLA, TSA, SkillsUSA) can develop to bring business and education together in a positive working relationship through innovative leadership and career development programs.
- 10.3 Explore the local, state, and national opportunities available to students through participation in related student organizations (FBLA, TSA, SkillsUSA) including but not limited to conferences, competitions, community service, philanthropy, and other student organization activities.
- 10.4 Explain how participation in career and technology education student organizations can promote lifelong responsibility for community service and professional development.
- 10.5 Explore the competitive events related to the content of this course and the required competencies, skills, and knowledge for each related event for individual, team, and chapter competitions.