

Information Technology Career Cluster
Digital Design
Course Number: 11.45100

Course Description:

Using web design as the platform for product design and presentation, students will create and learn digital media applications using elements of text, graphics, animation, sound, video and digital imaging for various format. The digital media and interactive media projects developed and published showcase the student skills and ability. Emphasis will be placed on effective use of tools for interactive multimedia production including storyboarding, visual development, project management, digital citizenship, and web processes. Students will create and design web sites that incorporate digital media elements to enhance content of web site.

Various forms of technologies will be used to expose students to resources, software, and applications of media. 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.

Digital Design is the second course in the Web and Digital Design pathway in the Information Technology cluster. Students enrolled in this course should have successfully completed Introduction to Software Technology.

Course Standard 1

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

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	Handling Unsolicited Calls		Giving and Receiving Feedback	Asking Questions
				Obtaining Feedback
				Getting Others to Listen

Nonverbal Communication	Written Communication	Speaking	Applications and Effective Résumés
Communicating Nonverbally	Writing Documents	Using Language Carefully	Completing a Job Application
Reading Body Language and Mixed Messages	Constructive Criticism in Writing	One-on-One Conversations	Writing a Cover Letter
Matching Verbal and Nonverbal communication		Small Group Communication	Things to Include in a Résumé
Improving Nonverbal Indicators		Large Group Communication	Selling Yourself in a Résumé
Nonverbal Feedback		Making Speeches	Terms to Use in a Résumé
Showing Confidence Nonverbally		Involving the Audience	Describing Your Job Strengths
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 Solving	Customer Service	The Application Process	Interviewing Skills	Finding the Right Job
Transferable Job Skills	Gaining Trust and Interacting with Customers	Providing Information, Accuracy and Double Checking	Preparing for an Interview	Locating Jobs and Networking
Becoming a Problem Solver	Learning and Giving Customers What They Want	Online Application Process	Questions to Ask in an Interview	Job Shopping Online
Identifying a Problem	Keeping Customers Coming Back	Following Up After Submitting an Application	Things to Include in a Career Portfolio	Job Search Websites
Becoming a Critical Thinker	Seeing the Customer's Point	Effective Résumés:	Traits Employers are Seeking	Participation in Job Fairs
Managing	Selling Yourself and the Company	Matching Your Talents to a Job	Considerations Before Taking a Job	Searching the Classified Ads
	Handling Customer Complaints	When a Résumé Should be Used		Using Employment Agencies
	Strategies for Customer Service			Landing an Internship

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

Workplace Ethics	Personal Characteristics	Employer Expectations	Business Etiquette	Communicating at Work
Demonstrating Good Work Ethic	Demonstrating a Good Attitude	Behaviors Employers Expect	Language and Behavior	Handling Anger
Behaving Appropriately	Gaining and Showing Respect	Objectionable Behaviors	Keeping Information Confidential	Dealing with Difficult Coworkers
Maintaining Honesty	Demonstrating Responsibility	Establishing Credibility	Avoiding Gossip	Dealing with a Difficult Boss
Playing Fair	Showing Dependability	Demonstrating Your Skills	Appropriate Work Email	Dealing with Difficult Customers
Using Ethical Language	Being Courteous	Building Work Relationships	Cell Phone Etiquette	Dealing with Conflict
Showing Responsibility	Gaining Coworkers' Trust		Appropriate Work Texting	
Reducing Harassment	Persevering		Understanding Copyright	
Respecting Diversity	Handling Criticism		Social Networking	
Making Truthfulness a Habit	Showing Professionalism			
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 Criticism	Finding More Time
		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	Communication Etiquette	Presenting Yourself
Using Professional Manners	Meeting Business Acquaintances	Creating a Good Impression	Looking Professional
Introducing People	Meeting People for the First Time	Keeping Phone Calls Professional	Dressing for Success
Appropriate Dress	Showing Politeness	Proper Use of Work Email	Showing a Professional Attitude
Business Meal Functions		Proper Use of Cell Phone	Using Good Posture

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Behavior at Work Parties		Proper Use in Texting	Presenting Yourself to Associates
Behavior at Conventions			Accepting Criticism
International Etiquette			Demonstrating Leadership
Cross-Cultural Etiquette			
Working in a Cubicle			

Course Standard 2

IT-DD-2

Organize personal online career portfolio for specific career interests.

- 2.1 Review and update résumé to reflect new knowledge and skills master and additional work experience.
- 2.2 Organize folders within the portfolio to reflect specific careers of interest, including résumé, targeted cover letter, and artifacts relevant to the specific career.
- 2.3 Update all current items in the portfolio.
- 2.4 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.
- 2.5 Polish all entries in the online career portfolio to ensure accuracy and professionalism as expected from employers.
- 2.6 Conduct a job search and share the appropriate folder with the potential employer.

Course Standard 3

IT-DD-3

Research, explain, and summarize current state of the web, functions of the web, and future trends emerging on the web.

- 3.1 Compare and contrast web browsers use, function, and purpose for target audience.
- 3.2 Describe the impact of mobile technology on the web and in our daily lives.
- 3.3 Define Web 2.0 and describe how Web 2.0 technologies, browser plug-ins, and other web-based utilities can enhance the user's experience.
- 3.4 Describe the impact of web/internet technologies in daily life.

Course Standard 4

IT-DD-4

Identify logistical, ethical, and legal issues related to digital media and apply concepts to use of text, graphics, animation, sound, video, and digital images in digital products.

- 4.1 Research privacy, legal and ethical issues of digital media ensuring to meet the W3C standards and web accessibility requirements for completed digital products including but not limited to copyright, digital rights management, piracy, trademark, open source, plagiarism, fair use, permission, creative commons license, etc.
- 4.2 Discuss the legal and ethical implications of using social media.

Course Standard 5

IT-DD-5

Develop a plan to create, design, and market a web site with digital content to a specific target market.

- 5.1 Demonstrate an understanding of the phases of web site or digital product development.
 - a. Explain the agile, scrum, waterfall, and prototype models.
- 5.2 Identify concepts in usability for components of web site or digital product.
- 5.3 Construct a product development plan for a digital product to meet customer expectations.
- 5.4 Identify common marketing strategies for web sites for target market, including internet marketing and search engine optimization.
- 5.5 Demonstrate ability to format text using proper tags set by the W3C (strong, emphasize).
- 5.6 Demonstrate ability to use tables to control the layout and appearance of data.
- 5.7 Demonstrate ability to create forms that accepts user inputs.

Course Standard 6

IT-DD-6

Explore and write using the various writing styles used on web sites and in digital content to get the intended message across.

- 6.1 Compare and contrast chunking versus paragraph writing styles noting the benefits of using each style within a website or presentation.
- 6.2 Demonstrate ability to write using inverted pyramid style of writing.
- 6.3 Research and debate the type of writing style that reaches different target audiences.

Course Standard 7

IT-DD-7

Identify and develop model digital products that reveal a professional layout and look by applying design principles to produce professional quality digital products.

- 7.1 Describe and identify graphical elements and the appropriate use of elements on a web site.
- 7.2 Explore and apply color principles to digital products.
- 7.3 Critique work samples for professional quality in look and layout based on design principles.
- 7.4 Explain the difference between graphic elements used in print media and online media.
- 7.5 Apply the concept of how graphics and text help establish a brand or product identity and explain meaning in presentation of graphic. Upload to online career portfolio.
- 7.6 Analyze the look and layout of a website based on the first impression of content and page elements and describe.

Course Standard 8

IT-DD-8

Create and edit images and graphics.

- 8.1 Demonstrate appropriate image capturing techniques and sources.

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- 8.2 Apply photographic composition techniques (e.g., rule of thirds, point-of-view, and framing) to taking pictures for use in media project.
- 8.3 Select proper and ethical image-capturing techniques (e.g., royalty-free images, fair-use guidelines).
- 8.4 Apply appropriate image and graphic editing techniques.
- 8.5 Use graphic-editing software to create and edit images for publications and presentations. Upload to online career portfolio.
- 8.6 Understand and apply image composition techniques (e.g., resolution, anti-aliasing, and lighting).
- 8.7 Apply appropriate use of photo editing techniques (e.g., cropping, red eye, layers).
- 8.8 Select appropriate file type and resolution size for digital product use, editing, and storage.
- 8.9 Compare and contrast raster and vector graphics and editing programs.
- 8.10 Use a raster edit program to create and edit digital images and graphics.
- 8.11 Edit digital images to fit digital products.
- 8.12 Create digital images to align to marketing strategy and target audience. Upload to online career portfolio.
- 8.13 Work within a vector editing program to create and edit digital images.
- 8.14 Use virtual reality software to create interactive images (e.g., 360° images, hot spots). Upload to online career portfolio.

Course Standard 9

IT-DD-9

Plan, produce, edit, and publish digital audio.

- 9.1 Describe the current uses for audio on the web.
- 9.2 Explore online/offline options available for creating and editing audio files.
- 9.3 Identify differences between the common audio file types and their proper uses.
- 9.4 Explain why conforming to copyright laws is important (cutting down to acceptable length).
- 9.5 Explore options available for converting file types for publication on web sites and presentations.
- 9.6 Demonstrate ability to appropriately include audio in digital product. Upload to online career portfolio.

Course Standard 10

IT-DD-10

Plan, edit, produce, and post a multimedia-rich video project.

- 10.1 Research and reveal how video can be used to enhance the message intended for an audience.
- 10.2 Explain importance and model use of storyboarding a video project.
- 10.3 Develop an equipment list in creating and making videos with novice users for a professional quality product.
- 10.4 Cite available software for creating videos ranging from free software to paid software, and online compared to downloaded software.
- 10.5 Model the use of avatars as digital video creation.
- 10.6 Demonstrate ability to edit videos including adding subtitles, special effects, and transitions.
- 10.7 Insert or embed a video on web site. Upload to online career portfolio.

Course Standard 11

IT-DD-11

Plan, produce, edit, and publish animations.

- 11.1 Describe the current uses of animation in multimedia and web sites.
- 11.2 Explore online, offline, and mobile tools available to create animations.
- 11.3 Create animations for use in web sites and multimedia productions, including GIFs, animated SVG design, and others. Upload to online career portfolio.

Course Standard 12

IT-DD-12

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.

- 12.1 Explain the goals, mission, and objectives of Future Business Leaders of America (FBLA) and/or Technology Student Association (TSA) and/or SkillsUSA.
- 12.2 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.
- 12.3 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.
- 12.4 Explain how participation in career and technology education student organizations can promote lifelong responsibility for community service and professional development.
- 12.5 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.