ADVANCED WEBPAGE DESIGN AND DEVELOPMENT
COURSE CODE: 5033
STUDENT PROFILE

STUDENT'S NAME:	**TEACHER'S NAME:**
School Year/Semester:	**Grade:**
Begin Date:	**Date Completed:**

Directions: Document student's progress using the applicable rating scales below: Enter date of completion under the appropriate column.

0 - Requires additional instruction and or **close supervision (60-69)**
1 – Has not received instruction in this area / **no experience or knowledge of this task (N/A)**
2 – Can perform the task completely with **limited supervision (70-79)**
3 – Can apply and perform **independently (80-100)**

A. SAFETY		**0**	**1**	**2**	**3**
1	Review school safety policies and procedures.				
2	Review classroom safety rules and procedures.				
3	Review safety procedures for using equipment in the classroom.				
4	Identify major causes of work-related accidents in office environments.				
5	Demonstrate safety skills in an office/work environment				
B. STUDENT ORGANIZATIONS		**0**	**1**	**2**	**3**
1	Identify the purpose and goals of a Career and Technology Student Organization (CTSO).				
2	Explain how CTSOs are integral parts of specific clusters, majors, and/or courses.				
3	Explain the benefits and responsibilities of being a member of a CTSO.				
4	List leadership opportunities that are available to students through participation in CTSO conferences, competitions, community service, philanthropy, and other activities.				
5	Explain how participation in CTSOs can promote lifelong benefits in other professional and civic organizations.				
C. TECHNOLOGY KNOWLEDGE		**0**	**1**	**2**	**3**
1	Demonstrate proficiency and skills associated with the use of technologies that are common to a specific occupation (e.g., keying speed).				
2	Identify proper netiquette when using e-mail, social media, and other technologies for communication purposes.				

3	Identify potential abuse and unethical uses of laptops, tablets, computers, and/or networks.				
4	Explain the consequences of social, illegal, and unethical uses of technology (e.g., cyber bullying; piracy; illegal downloading; cyberbullying; licensing infringement; inappropriate uses of software, hardware, and mobile devices in the work environment).				
5	Discuss legal issues and the terms of use related to copyright laws, fair use laws, and ethics pertaining to downloading of images, photographs, Creative Commons, documents, video, sounds, music, trademarks, and other elements for personal use.				
6	Describe ethical and legal practices of safeguarding the confidentiality of business-related information.				
7	Describe possible threats to a laptop, tablet, computer, and/or network and methods of avoiding attacks.				
8	Evaluate various solutions to common hardware and software problems.				
D. PERSONAL QUALITIES AND EMPLOYABILITY SKILLS		**0**	**1**	**2**	**3**
1	Demonstrate punctuality.				
2	Demonstrate critical thinking and problem-solving skills				
3	Demonstrate initiative and self-direction.				
4	Demonstrate integrity.				
5	Demonstrate work ethic.				
6	Demonstrate conflict resolution skills.				
7	Demonstrate listening and speaking skills.				
8	Demonstrate respect for diversity.				
9	Demonstrate customer service orientation.				
10	Demonstrate teamwork.				
E. PROFESSIONAL KNOWLEDGE		**0**	**1**	**2**	**3**
1	Demonstrate global or “big picture” thinking.				
2	Demonstrate career and life management skills and goal-making.				
3	Demonstrate continuous learning and adaptability skills to changing job requirements.				
4	Demonstrate time and resource management skills.				
5	Demonstrates information literacy skills.				

6	Demonstrates information security skills.				
7	Demonstrates information technology skills.				
8	Demonstrates knowledge and use of job-specific tools and technologies.				
9	Demonstrate job-specific mathematics skills.				
10	Demonstrates professionalism in the workplace.				
11	Demonstrates reading and writing skills.				
12	Demonstrates workplace safety.				
F. WEB DESIGN PRINCIPLES (INCORPORATED THROUGHOUT THE COURSE)		**0**	**1**	**2**	**3**
1	Compare and contrast web design and web development.				
2	Compare and contrast static and dynamic websites.				
3	Analyze parent-child relationships as it relates to file management.				
4	Research compliance with web standards based on government and industry guidelines (e.g., Section 508, American Disability Act (ADA), and Payment Card Industry (PCI).				
5	Demonstrate copyright adherence.				
G. PLANNING AND DESIGN (INCORPORATED THROUGHOUT THE COURSE)		**0**	**1**	**2**	**3**
1	Demonstrate best web design and development practices (e.g., planning, design, usability, debugging, validation, and navigation plan).				
2	Utilize technical documentation as part of the design and development process.				
3	Plan for compliance with web standards based on government and industry guidelines (e.g., Section 508, American Disability Act (ADA), and Payment Card Industry (PCI)).				
H. CONSTRUCTING WEBSITES: HTML		**0**	**1**	**2**	**3**
1	Create a functional form with a variety of inputs (e.g., radio, check box, text area, text) that incorporates JavaScript checking, and interacts with the data provided.				
2	Create tables to organize and display data.				
3	Apply industry standard use of meta-tags (e.g., title, description, keywords).				

4	Examine best practices for incorporating streaming media (e.g., HTML5 video and audio elements).				
I. CONSTRUCTING WEBSITES: CSS		**0**	**1**	**2**	**3**
1	Create websites using advanced CSS design techniques (e.g., Rounded corners, Border images, Gradients, shadows, 2D and 3D transforms, Transitions, animations).				
2	Apply styles using CSS selectors (e.g., first-child, last-child, nth-child, *, >, ::after, ::before).				
3	Demonstrate effective use of CSS positioning techniques (e.g., float, grid, flexbox) to create websites with different page layouts.				
4	Describe CSS properties necessary to create responsive websites (e.g., viewport, grid view, media queries, and images).				
5	Create websites that function on various device types (responsive design to address screen size, and considerations for touch screen devices).				
6	Create a website using an HTML and CSS framework (e.g., HTML5 boilerplate, Bootstrap, and Foundation).				
J. CONSTRUCTING WEBSITES: JAVASCRIPT		**0**	**1**	**2**	**3**
1	Differentiate between JavaScript statements, code, blocks, comments, variables, operators, and syntax.				
2	Create JavaScript that responds to events.				
3	Use JavaScript to update the content of HTML elements, HTML attributes, and CSS styles.				
4	Implement JavaScript functions that use variables, operators, arrays/lists, and objects.				
5	Design algorithms involving conditionals and loops.				
6	Use JavaScript to perform form processing and validation.				
7	Use code from various JavaScript libraries using appropriate documentation.				
K. PUBLISHING AND MAINTAINING WEBSITES		**0**	**1**	**2**	**3**
1	Evaluate features and costs of domain name and hosting providers.				
2	Compare and contrast the role of industry standard languages and tools (e.g., PHP, MySQL, JavaScript, jQuery, Content Management Systems (CMS), frameworks, and APIs).				
3	Differentiate between secure and unsecure web protocols.				

4	Explain circumstances that would necessitate encryption.				
5	Research search engine algorithms in regards to crawling, indexing, and ranking of webpages.				
6	Examine basic Search Engine Optimization (SEO) tools and best practices				
7	Describe the function of analytics for web site development and web services decision making.				
L. CAREER DEVELOPMENT		**0**	**1**	**2**	**3**
1	Investigate the requirements to obtain a web design/development industry certification.				
2	Research current web design and development job postings and analyze responsibilities, tasks, education, and skills.				
3	Compare and contrast corporate and freelance web design opportunities.				
4	Explain the role of portfolios in the design industry.				
5	Create a biographical narrative to include on the portfolio website.				
6	Evaluate sample work for inclusion in an electronic portfolio.				
7	Assemble a portfolio website including a variety of work created in the course.				
M. CONTENT MANAGEMENT (OPTIONAL)		**0**	**1**	**2**	**3**
1	Compare and contrast commonly used content management systems (CMS) (e.g., WordPress, Drupal, Joomla).				
2	Install and maintain an instance of a CMS.				
3	Construct a site using a CMS.				
4	Explore available templates, plug-ins, and widgets.				
5	Design or modify CMS templates and style sheets using PHP or CSS.				
6	Create users and assign appropriate roles.				
7	Discuss issues related to website security when using a CMS.				
N. DATABASE INTEGRATION (OPTIONAL)		**0**	**1**	**2**	**3**
1	Describe the purpose of a database as it relates to web development.				
2	Identify and describe relational databases.				
3	Identify the use of Extensible Markup Language (XML) for the transportation and storage of data.				
4	Incorporate a database into a website using a server-side scripting language such as PHP.				