Implementation Date
Fall 2008

PROGRAM CONCENTRATION: **Business & Computer Science**
CAREER PATHWAY: **Interactive Media**
COURSE TITLE: **Fundamentals of Web Design**

Fundamentals of Web Design is the second course in the Interactive Media Career Pathway. This course will provide students with essential web page planning and development skills. Students will learn to write code manually and use graphical authoring tools. Students will also learn to work with web page layout and graphical elements, including images, hyperlinks, tables, forms, and frames. Mastery of these standards through project-based learning and leadership development activities of Future Business Leaders of America (FBLA) will help prepare students with a competitive edge for the global marketplace.

BASIC WEB SITE CONSTRUCTION & TECHNIQUES

BCS-FWD-1. Students will demonstrate an understanding of the planning, development, and implementation of web sites.

   a. Define key terms in web site development including client-side, server-side, HTML, CSS, databases, and CGI.
   b. Demonstrate knowledge of essential web site navigation issues.
   c. Demonstrate knowledge of document and web site file structure.
   d. Demonstrate an understanding of creating and using hyperlinks in web sites.
   e. Create a flowchart/storyboard.
   f. Describe one or more target groups.
   g. Present web site.

Academic Standards:

ELA12RC3. The student acquires new vocabulary in each content area and uses it correctly.

ELA12LSV1. The student participates in student-to-teacher, student-to-student, and group verbal interactions.

ELA12LSV2. The student formulates reasoned judgments about written and oral communication in various media genres. The student delivers focused, coherent, and polished presentations that convey a clear and distinct perspective, demonstrate solid reasoning, and combine traditional rhetorical strategies of narration, exposition, persuasion, and description.

ELA12W2. The student demonstrates competence in a variety of genres.

BCS-FWD-2. Students will demonstrate an understanding of government, ethical, and industry accessibility compliance issues.

a. Verify web site readability, usability, and browser compatibility.
b. Identify and use government and industry accessibility standards.
c. Identify copyright issues related to the use of digital media.

Academic Standards:

ELAWLRC4. The student establishes a context for information acquired by reading across subject areas.

SSEF5. The student will describe the roles of government in a market economy.

SSCG7. The student will describe how thoughtful and effective participation in civic life is characterized by obeying the law, paying taxes, serving on a jury, participating in the political process, performing public service, registering for military duty, being informed about current issues, and respecting differing opinions.

SSCG21. The student will demonstrate knowledge of criminal activity.

LANGUAGES

BCS-FWD-3. Students will demonstrate an understanding of the history of markup languages.

a. Compare and contrast SGML versus HTML and HTML versus XHTML.

Academic Standards:

ELA12W3. The student uses research and technology to support writing.

ELA12RC3. The student acquires new vocabulary in each content area and uses it correctly.

BCS-FWD-4. Students will demonstrate knowledge of languages, markup tags, and good coding practices commonly used to create web pages.

b. Use XHTML tags to create and edit a document.
c. Identify and apply good coding practices.
d. Compare and contrast common languages used to provide database connectivity.
e. Compare and contrast at least three common CGI methods.
f. Validate web pages using W3C standards.

Academic Standards:

ELA12RC3. The student acquires new vocabulary in each content area and uses it correctly.

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ELA12W1. The student produces writing that establishes an appropriate organizational structure, sets a context and engages the reader, maintains a coherent focus throughout, and signals a satisfying closure.

ELA12W2. The student demonstrates competence in a variety of genres.

ELA12W3. The student uses research and technology to support writing.

GRAPHICAL ELEMENTS & LAYOUTS

BCS-FWD-5. Students will identify and demonstrate appropriate use of graphical elements for web pages.

     a. Use horizontal rules, data tables, and lists in web pages.
     b. Add images to web pages.
     c. Create image maps.
     d. Identify and use appropriate color principles.
         1. Identify cultural connotations to certain colors.
     e. Design, create and validate forms.

Academic Standards:

ELA12RC3. The student acquires new vocabulary in each content area and uses it correctly.

ELA12W2. The student demonstrates competence in a variety of genres.

ELA12W3. The student uses research and technology to support writing.

SSWG2. Students will explain the cultural aspects of geography.

BCS-FWD-6. Students will demonstrate knowledge of web page layout fundamentals.

     a. Design and create frames and layout tables.
     b. Define and apply cascading style sheets.

Academic Standards:

ELA12RC3. The student acquires new vocabulary in each content area and uses it correctly.

ELA12W3. Students use research and technology to support writing.

GUI EDITORS

BCS-FWD-7. Students will create web pages using GUI-based HTML editing and graphics software.

      a. Use the HTML editor to create accessible pages.
      b. Use GUI components effectively (such as check boxes, text boxes).
      c. Create a site using a GUI editor.

Academic Standards:

ELA12W1. The student produces writing that establishes an appropriate organizational structure, sets a context and engages the reader, maintains a coherent focus throughout, and signals closure.

ELA12W3. Students use research and technology to support writing.

ELA12LSV2. The student formulates reasoned judgment about written and oral communication in various media genres. The student delivers focused, coherent, and polished presentations that convey a clear and distinct perspective, demonstrate solid reasoning, and combine traditional rhetorical strategies of narration, expositions, persuasion, and description.

E-COMMERCE

BCS-FWD-8. Students will demonstrate an understanding of e-commerce practices.

      a. Identify and define key terms relating to e-commerce including business to business and consumer to business.
      b. Compare and contrast e-commerce to traditional commerce.
      c. Identify issues related to e-commerce in a global economy including currency and languages.

Academic Standards:
ELA12RC3. The student acquires new vocabulary in each content area and uses it correctly.

ELA12W3. The student uses research and technology to support writing.

MM4P4. Students will make connections among mathematical ideas and to other disciplines.

MM4P5. Students will represent mathematics in multiple ways.

SSEIN1. Students will explain why individuals, businesses, and governments trade goods and services.

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SSEM13. Students will explain how markets, prices, and competition influence economic behavior.

CTAE Foundation Skills

The Foundation Skills for Career, Technical and Agricultural Education (CTAE) are critical competencies that students pursuing any career pathway should exhibit to be successful. As core standards for all career pathways in all program concentrations, these skills link career, technical and agricultural education to the state's academic performance standards.

The CTAE Foundation Skills are aligned to the foundation of the U. S. Department of Education's 16 Career Clusters. Endorsed by the National Career Technical Education Foundation (NCTEF) and the National Association of State Directors of Career Technical Education Consortium (NASDCTEc), the foundation skills were developed from an analysis of all pathways in the sixteen occupational areas. These standards were identified and validated by a national advisory group of employers, secondary and post secondary educators, labor associations, and other stakeholders. The Knowledge and Skills provide learners a broad foundation for managing lifelong learning and career transitions in a rapidly changing economy.

CTAE-FS-1 Technical Skills: Learners achieve technical content skills necessary to pursue the full range of careers for all pathways in the program concentration.

CTAE-FS-2 Academic Foundations: Learners achieve state academic standards at or above grade level.

CTAE-FS-3 Communications: Learners use various communication skills in expressing and interpreting information.

CTAE-FS-4 Problem Solving and Critical Thinking: Learners define and solve problems, and use problem-solving and improvement methods and tools.

CTAE-FS-5 Information Technology Applications: Learners use multiple information technology devices to access, organize, process, transmit, and communicate information.

CTAE-FS-6 Systems: Learners understand a variety of organizational structures and functions.

CTAE-FS-7 Safety, Health and Environment: Learners employ safety, health and environmental management systems in corporations and comprehend their importance to organizational performance and regulatory compliance.

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CTAE-FS-8 Leadership and Teamwork: Learners apply leadership and teamwork skills in collaborating with others to accomplish organizational goals and objectives.

CTAE-FS-9 Ethics and Legal Responsibilities: Learners commit to work ethics, behavior, and legal responsibilities in the workplace.

CTAE-FS-10 Career Development: Learners plan and manage academic-career plans and employment relations.

CTAE-FS-11 Entrepreneurship: Learners demonstrate understanding of concepts, processes, and behaviors associated with successful entrepreneurial performance.