

## **Web Design and Interactive Media 2007**

### **Program Outcomes:**

At the end of the program, the student will be able to

### **Foundation Skills**

*Apply principles of color theory*

*Articulate and solve basic problems of form and function*

*Solve problems in 2-D and 3-D design*

*Generate technically accurate drawings using perspective*

*Identify the visual language of design*

*Produce a design solution appropriate for a particular client and/or target audience*

*Define and apply design-related terminology*

*Identify, select, and use various media and styles to achieve desired results*

*Create, capture, manipulate, and edit images using digital processes*

*Identify properties of various delivery platforms*

*Apply interface design principles*

*Design for specific delivery platforms*

*Demonstrate knowledge of historic periods and events of mass communications and their impact on society*

*Apply principles of composition and layout*

### **Technology**

*Operate a computer using various operating system interfaces*

*Use and manage computer hardware peripherals for input, output, and storage*

*Update and manage data across operating platforms through the use of backup, file transfer, and network systems*

*Use Internet browser*

*Manage and organize files*

*Use image manipulation software*

*Perform basic Internet functions*

*Use authoring software*

*Perform programming fundamentals (loops, variables, conditions)*

*Use properties and controls*

*Apply interactive design principles to a web site*

*Use server side scripting applications to enhance websites*

*Make evident debugging and troubleshooting skills as related to web scripting*

*Create an application that solves specified problems*

*Implement menus and dialog boxes*

*Add a custom property to a form*

*Demonstrate a variety of scripting techniques*

*Demonstrate debugging and troubleshooting skills as related to web scripting*  
*Describe function and utility of interactive training in a business environment*  
*Apply basic principles of instructional design to the development of computer-based training*  
*Design, develop, and produce a short piece of e-learning instructional software using a standard authoring system*  
*Use an authoring tool to produce an example of e-learning*  
*Describe the programming process*  
*Compare and contrast procedure and object oriented programming*  
*Describe the principles of digital audio.*  
*Apply techniques of digital signal processing*  
*Apply sampling technology and techniques*  
*Describe the fundamentals of audio signals*  
*Synchronize audio and video transports*  
*Describe hard disk recording software and hardware packages*  
*Use digital audio in interactive design*  
*Use digital audio in music production*  
*Import and export files in digital audio formats*  
*Define basic terminology of photography and basic videography including the tools of the media: storage medium, cameras, cables, tripods, microphones and lights*  
*Exhibit knowledge of the concept of color theory and storyboarding and its application in the composition of digital moving and static images*  
*Create and critique moving and static images that convey thematic meanings*  
*Demonstrate principles of lighting in the composition of moving and static images, proper camera techniques including, control and framing of shots, both hand held and using a tripod, production crew, use of a digital darkroom and professional labeling practices*  
*Use an illustration program*  
*Describe needs analysis as it pertains to usability*  
*Demonstrate a working knowledge of intermediate level scripting techniques*  
*Create a professional quality presentation*  
*Demonstrate an integrated knowledge of audio, video, graphics and animation as they relate to interactive presentations*  
*Utilize and demonstrate ability to apply advanced file integration*  
*Display advanced knowledge of cross-platform compatibility issues*  
*Incorporate audio and video elements*  
*Evaluate structure, syntax, and protocol of a scripting language*  
*Use scripting to integrate media elements and manipulation objects*  
*Ascertain audio requirements for field and studio productions*  
*Use different microphones in a variety of production situations*  
*Set, record, and monitor proper audio levels*  
*Mix multiple tracks of music, voice, and sound effects*  
*Apply non-linear editing concepts and other compression systems.*  
*Complete one non-linear editing project that will be exported to zip disk, video, or CD ROM*  
*Define the essential components of web-based databases*

*Map the conceptual relationship of databases to information structure*  
*Create simple databases for delivering dynamic content*  
*Use server-side scripting to deliver database content to a web page*  
*Create and organize content and databases for dynamic delivery to websites*  
*Use server side scripting to deliver, modify, and update the database and page content via the web*  
*Apply server side technologies to solve an end-user need or*  
*Develop and upload a dynamic website on the Internet*  
*Identify and apply advanced scripting techniques that solve specified problems*  
*Use client side forms in conjunction with server side scripting applications*  
*Identify and implement appropriate delivery platforms*  
*Apply debugging and troubleshooting skills to advanced web scripting*  
*Develop and maintain a dynamic website on the Internet*

## **Design/Usability**

*Recommend and apply creative typographic solutions to design problems based on historical models, contemporary trends, and current technology*  
*Develop a concept*  
*Articulate an idea/concept*  
*Work in a team to execute a concept*  
*Use, define, and compare various media to create results according to established criteria*  
*Identify typefaces appropriate for screen-based media*  
*Create storyboards that effectively document narrative and/ or concept development*  
*Apply visual and timeline based design principles to the creation of digital animation*  
*Demonstrate skills in preparation of digital animation for a variety of*  
*Utilize the concepts and practices of timeline based media*  
*Identify the target user population for a given Web site*  
*Compare and contrast various usability issues that arise when a web site is implemented with those when maintained.*  
*Identify methods and explain how usability impacts a company's bottom-line and business objectives.*  
*Develop interactive motion graphics that incorporate created or imported original graphics*  
*Create navigational schemes consistent with project parameters*  
*Implement basic principles of optimization and performance*  
*Identify the role of design in branding/corporate identity*  
*Apply conceptual design skills to develop branding strategies*  
*Apply the elements of design to create logos and visual identities*  
*Develop information structures that meet client needs for targeted audience*  
*Design and produce identity design for multiple formats including print and web*  
*List and define various types of usability tests*  
*Select an appropriate user group for testing*  
*Create or administer a test*

*Interpret the results of a test and link results to the bottom line and to company objectives*  
*Assess design issues specific to timeline based authoring*  
*Create user-centered navigation experience*  
*Increase interactive design productivity through applied principles*  
*Implement and design a dynamic web site that solves an end-user need or problem*  
*Apply user-centered design principles to the design of dynamic web sites*  
*Identify effective instructional design methods*  
*Utilize instructional design methods to create effective instructional materials*

## **Business**

*Demonstrate flexibility and adaptability in the work environment*  
*Identify career paths and roles in the interactive design industry*  
*Produce and deliver presentations*  
*Exhibit proficiency in writing for media production*  
*Research background, story, or project information*  
*Construct a marketing plan*  
*Plan, write, and present a proposal for a project, and have it approved*  
*Summarize the major components of marketing*  
*Review a variety of marketing plans and identify the common components of each one*  
*Recognize the major external influences on a company's marketing efforts*  
*Participate as a member and/or leader of a team*  
*Work with members of a team on an assigned task*  
*Research an interactive design project topic appropriate for completion in a team setting within the framework of one or two quarters and utilizing the facilities available at the institution*  
*Interface with existing projects*  
*Conduct necessary research for projects*  
*Produce projects as delineated in project plans*  
*Defend projects to industry professionals (e.g., professors)*  
*Demonstrate a working knowledge of interactive project management*  
*Define a Web site mission*  
*Create and present formal project proposals to prospective clients*  
*Create scripts specific to various target audiences and delivery mechanisms*  
*Demonstrate the correlation links between information design and company objectives using statistics and other measurable results of testing in reports, memos, and presentations*  
*Manage the production of an interactive design project*  
*Manage the production and completion of an interactive design project*  
*Align personal attitudes and behaviors with project objectives*  
*Define aspects of business operations*  
*Conduct research related to the job search and career development, using a variety of resources*  
*Examine and differentiate personal and career goals*  
*Develop job-search documents and interviewing skills for employment*

*Identify career paths and salaries*

*Market themselves*

*Present a portfolio and articulate strengths*

*Describe the procedural and substantive components of the legal system*

*Describe the law and rationale supporting the development and protection of intellectual property*

*Identify and circumvent potential liability in the areas of copyright, contract law, defamation, invasion of privacy, and trademark law.*

*Obtain, complete and file the required documents for the protection of intellectual property and to obtain permission for the use of protected work*