Computer Programming Department
Business/Public Service Division
GREENVILLE TECHNICAL COLLEGE

COURSE SYLLABUS

Course Title: Internet Operations & Management
Course Number: IST 227

Lecture hours per week: 3.0 **Lab/Clinic Hours:** **Semester credit hours:** 3.0

Pre-requisite: IST 225 or CPT 113 (CPT degree majors)

Catalog course description: This course covers the duties and responsibilities of an Internet Webmaster; appropriate hardware, software, and telecommunications technology; designing, implementing, and maintaining a website; and utilizing security mechanisms. Note: Course taught via College Online only.

Purpose of the course:

1. Develop a full conception of the Web as a transformative medium, web design and development as an evolving profession, and web designers as a diverse pool of talents and purposes.
2. Build an applicable website evaluation framework to guide systematic assessment of existing and future websites in terms of four basic website parameters and their underlying principles.
3. Guide future Web design professionals through the considerations, standards, and guidelines that are essential for websites that address usability and accessibility requirements.
4. Develop a systematic three-phase process for site planning and information gathering; design and production; and launching, testing, and improving new and existing websites.
5. Prototype a functioning website for professional use in current and future design projects using HTML coding or code generating software such as FrontPage.
6. Develop a plan for designing, implementing, and maintaining an accessible, usable, full-function website that meets the guidelines and standards of the profession as defined by the World Wide Web Consortium and evidence-based research (usability.gov) using a systematic design process.

Required text(s) or other materials:

1. Web Design: Concepts and Techniques; Shelly, Napier and Rivers; Cengage Learning; ISBN: 978-1-4239-2718-1
2. NOTE: Students in traditional classes must access Blackboard for course-related information. Students in hybrid and online classes will access their online content through Blackboard.

COLLEGE-WIDE STUDENT LEARNING OUTCOMES

1. Communication – Students will demonstrate the ability to use active reading and listening skills and to produce effective written and oral communication for varying audiences.

2. Information Technology and Technological Literacy – Students will demonstrate competency in using computer technology within a field of study.

3. Critical Thinking/Reasoning – Students will demonstrate the ability to apply the scientific method, mathematical processes, and research skills to analyze and solve problems/issues by using reflection and reasoning to justify conclusions.

4. Professional and Personal Responsibility – Students will demonstrate the ability to exhibit conduct, attitudes, and etiquette appropriate to the student's community and chosen career. Students will demonstrate the ability to manage time, to use effective interpersonal skills, and to display responsible behavior.

5. Diversity – Students will demonstrate the ability to recognize diversity and to demonstrate respectful conduct and attitudes toward all. Students will demonstrate the ability to explain how global issues impact life, work, and opportunities.

Approved March 26, 2009

COMPUTER PROGRAMMING PROGRAM STUDENT LEARNING OUTCOMES

Upon successful completion of the CPT/Programming program, the graduate will be able to:

1. Students will be able to analyze, design, develop, and document solutions that will satisfy the information needs of business users using established design methodologies and standards.
2. Students will be able to design, create, test, and document logical programming solutions to prescribed specifications following established standards and using current development environments and languages for application development and database management.
3. Students will be able to demonstrate the knowledge and ability to install and maintain microcomputer hardware and operating system software.
4. Students will be able to demonstrate the use of a minimum of three business application software packages.
5. Students will be able to demonstrate fundamental team building, project management, and presentation skills by participating in team projects that include team goals and values, a development methodology for documentation and coding, group presentations, and exposure to topics such as diversity, time management, and goal setting.
6. Students will be able to demonstrate the ability to take initiative, assume responsibility, and work under pressure with minimum supervision by successfully completing "hands-on" computer lab assignments.

IST 227 COURSE OUTCOMES

Students who successfully complete this course will have demonstrated the skills necessary to accomplish the following objectives with a minimum competency of 70 percent:

1. Trace the technical breakthroughs that led to the development of the World Wide Web in combination with the communication and interaction demands that grew as these breakthroughs raised the bar of what was possible.
2. Create a personalized plan for a web design career making best use of existing talents and skills and identifying areas where additional learning and development will be needed.
3. Apply the four parameters by which websites can be judged using underlying questions to determine which of the principles that support each parameter have or have not been met.
4. Contrast 1st, 2nd, 3rd, and 4th Generation websites by presenting examples of each.
5. Differentiate clearly between websites that do and do not meet usability and accessibility guidelines and standards defending the need for sites that fall short to be upgraded until they do so.
6. Outline a 3-phase website design process to plan a user-centered website; design and produce it; and launch, test, and improve it.
7. Create a basic 2nd Generation website using HTML code or an editing package such as FrontPage.
8. Evaluate an existing website using website design criteria and recommend changes to increase its impact and effectiveness.

The objectives of the IST 227 course are intended to meet the CPT/Programming program competencies numbered 2 and 6 above.

IST 227 – Main Topics

***UNIT I: (Chapter 1)* Vision of the Web**

1. The Web: A Changing Medium
2. Breakthroughs in the History of the Web
3. The future of the Web
4. Skills needed on the Web
5. Standards for the future
6. The Web as a paradigm shift
7. Hands on: HTML basics

TEST # 1 and Written Case PROJECT # 1 – UNIT I

***UNIT II: (Chapter 2)* Web Design: Profession and Purpose**

1. What do Web Designers do?
2. Overview of a Web Designer's tasks
3. Five paths of entry to Web Design
4. The hazards of defining Web Design too narrowly
5. What are Websites for?
6. Five purposes of Websites
7. Hands on: Controlling Webpage text and background

TEST #2 and Written Case PROJECT #2 – UNIT II

***UNIT III:* *(Chapter 3)* Tools to Evaluate Web Design**

1. Basic website parameters and underlying principles
2. Parameter I: Communication
3. Parameter II: Visual Appeal
4. Parameter III: Utility
5. Parameter IV: Engagement
6. Hands on: Creating tables for webpage layout

TEST #3 and Webpage Creation PROJECT #3 – UNIT III

***UNIT IV:* *(Chapter 4)* Usability and Accessibility**

1. Integrating Usability standards and guidelines
2. Implementing Usability guidelines
3. Testing Usability
4. Integrating Accessibility standards
5. The importance of compliance
6. Testing Accessibility
7. Hands on: Creating lists and feedback forms

TEST #4 and Webpage Creation PROJECT #4 – UNIT IV

***UNIT V:* *(Chapter 5)* Phase I of the Web Design Process: Prepare and Plan**

1. Preparing through study and research
2. Conducting a Needs Analysis
3. Creating the Project plan
4. The Site Specifications and Standards document
5. The Project Management Plan
6. Hands on: Working with images

Webpage Creation PROJECT #5 – UNIT V

***UNIT VI:* *(Chapter 6)* Phase II of the Web Design Process: Design and Produce**

1. Design the basic site
2. Create the basic design
3. Select editing tools and development platforms
4. Analyze and organize site information
5. Restructure information into hierarchies
6. Select a physical structure
7. Create a site map
8. Create the navigation plan
9. Identify possible cross links
10. Prepare resources
11. Prototype, review, and produce the full site
12. Hands on: Creating links

Webpage Creation PROJECT #6 – UNIT VI

UNIT VII: (Chapter 7) **Phase III of the Web Design Process: Launch, Test, Maintain, and Improve**

1. Launch and test the site
2. Obtain client approval
3. Promote the site
4. Maintain, update, and improve the site
5. Professional obligations
6. Fair use of bandwidth
7. Respect for Copyright
8. Protection of confidentiality, privacy, and security
9. Accessibility compliance
10. Leadership role
11. Hands on: Meta tags, Web hosts, FTP

Webpage Creation PROJECT #7 – UNIT VII

INTERNATIONALIZATION of the Web Written Project

FINAL PROJECT

NOTE: Students enrolled in the online class will have a Class Calendar/Outline to follow.

*****There will be homework assignments with each unit which WILL require lab time.**

Tutoring is now available in the Business/Public Service Division Student Lab located on the Barton Campus in the Engineering Building (#103), Room 115. The hours for tutoring are posted in the lab (ET 115); no appointment is necessary. There are no fees required for this service.

General Course Introduction and Syllabus Review

IST 227 – EVALUATION AND GRADING INFORMATION

GRADING POLICY

Forty (40) percent of the final grade will be based on the average of the unit assignments.
Twenty (30) percent of the final grade will be based on the average of unit tests.
Ten (10) percent of the final grade will be based on the grade for bulletin board participation.
Twenty (20) percent of the final grade will be based on the grade for the Final Exam.

All assignments (i.e., labs, projects, research papers, etc.) for this course must be completed and submitted to the instructor by the due date established in order to receive credit for the assignment.

Final letter grades will be issued as follows:

A	=	90 - 100	points
B	=	80 - 89	points
C	=	70 - 79	points
D	=	60 - 69	points
F	=	0 - 59	points

READ THIS SYLLABUS CAREFULLY

You should read this syllabus carefully and ask your instructor about *any* aspects that you do not understand. The syllabus is an agreement between you and your instructor concerning course objectives, course content, grading, and other policies and procedures particular to this course. The above information is specific to the course. Three additional documents are provided as attachments and *are considered a part of this syllabus*:

Attachment I:

Each instructor will provide a supplement to this syllabus. The supplement will include: a week-by-week plan of instruction based on the section in which you are enrolled; your instructor's name, office hours and/or office location; and your instructor's contact information and recommended best methods to contact your instructor.

Attachment 2:

The Department responsible for developing and teaching has policies and procedures in place to assure quality instruction for all students. These are attached as "Departmental Policies and Procedures."

Attachment 3:

Please note that it is your responsibility to read the current Student Handbook included in Greenville Technical College's Catalog. (See website.) The Student Handbook addresses specific academic and student conduct policies and procedures. Excerpts from the Student Handbook representing the policies and procedures most often referred to in working with students are provided for your convenience as "Attachment 3."

Approved by: _____

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13 Dec 10
Date

This syllabus will remain in effect until revised or reviewed no later than August 2011.