

Mercer County Community College

Division of Business and Technology

IST 143

Introduction to HTML and Website Hosting

COURSE DESCRIPTION

An introduction to the two or three most popular operating systems for website hosting. Practice installing, configuring, and optimizing these operating systems as web servers. The Hyper-text Markup Language (HTML) will be thoroughly investigated including the use of text and graphics based navigation, tables, cascading style sheets, audio and graphics, frames and forms. The future direction of HTML, including XML and XHTML; the role of scripting languages, like VBScript, JavaScript, and Perl; and HTML editors will be introduced and summarized as a result of student research. Laboratory exercises will emphasize website and web page design and development using various HTML features to publish brief student "papers" on various Internet topics.

Text (s): **Reference Division Booklist**

Prerequisites: MAT030, ENG030, and ENG035 or equivalent proficiency; and a basic understanding of the Internet: IST102, IST140 or equivalent proficiency

Co-requisites: none

Credits: 4

Lecture Hours: 3

Studio/Lab Hours: 2

Food and drink are strictly prohibited in classrooms as per health and safety laws. Students may not bring in chemicals or cleaning fluids without the appropriate MSD sheets.

Coordinator: Winston H. Maddox

Latest Review: Fall 2003

I. OBJECTIVES

To develop the skills necessary to install operating systems on workstations and servers, to install essential software, to download and configure software for the Internet, and to prepare a workstation or a server to host a website.

To learn and practice the use of HTML, including its various text features, navigation between pages and URLs, tables, cascading style sheets, using audio, video, and graphics files, frames, and forms.

To develop confidence by publishing ones website, firstly on a local, in-class, server; and secondly on a remote, free, web hosting site.

To prepare students for more advanced studies in both the artistic and technical components of website development and management.

II. TESTS

There will be four tests, worth 6 points each, one after each part. Tests will be completed in the testing center, to preserve class and laboratory time. Each test will be open for a 9-day period.

III. QUIZZES

No quizzes are planned. Surprise or pop quizzes may be added to determine if students have done the reading required for each week's lectures and laboratories.

IV. LABORATORY

There will be 13 laboratory assignments, worth 3 points each, as follows:

1. Using UNIX to perform directory and communications services
2. Loading a non-UNIX Operating System, Application Programs, and using the OS to perform directory, file, and communications services.
3. Develop a "home" page with a link to a resume page that describes the student.
4. Replace the simple bibliographic page that was developed in lab 3 with a bibliographic page that uses ordered and unordered lists, and tags.
5. Add a new link to your home page to show images of yourself or of things that you want associated with you. The images may be downloaded, scanned, recorded with a digital camera, or drawn with a suitable drawing tool.
6. Add music or audio to one or more of you "image" pages so that the "user" can either play music by clicking on an icon or that plays as background while the image is being viewed. The music or audio that is presented may be either downloaded, recorded, or obtained from a public domain source.
7. Add a form to your website, with an appropriate link to your home page to collect information about those who visit your site. Students will require a personal e-mail account to complete this lab.
8. Modify your home page so that it uses frames, at least one source frame, and at least one target frame to display information from some other pages.

IV. LABORATORY (cont'd)

9. Replace one or more of your resume forms with forms that employ both tables and lists to store and display information. Students should be prepared to explain why some information is displayed using one technique and why other information used an alternative.
10. Add a page to your site, or a feature to an existing page that displays a short video sequence. An appropriate file must be found and downloaded from the Internet.
11. Download and install Apache Web Server on a Windows computer and a UNIX computer.
12. Installing Personal Web Server or Internet Information Server on a computer running Windows-98 or Windows-2000.
13. Publishing (loading) the student's website on a local (in-lab) and public (on-the-internet) Web Server.

V. LABORATORY EVALUATION

Of the three (3) points that are assigned to each laboratory, the students' performance will be evaluated as follows:

0.5 points: Preparation – was the student ready for the lab?

0.5 points: Punctuality – was the lab completed on time?

1.0 points: Appropriateness – does the work use the appropriate material and techniques?

1.0 points: "Code" Quality – is the report or HTML well written, easy to follow, and appropriately documented?

IV. PROJECTS or PAPERS

Each student is required to use the Internet to search for Service Providers that offer free Website hosting. The student should develop a criterion for comparing these "free" web-hosting services and then evaluate a minimum of 10 providers on each criterion. The students will share their evaluations during the 6th or 7th week of the course and each student will be assigned two services for further evaluation. Each student will write a report, comparing and contrasting the ten (or more) sites and discussing their specific experience with two sites (5 points). The final report will be due the 13th week of class.

Each student is expected to develop and publish a website describing him or herself or a topic of interest to the student (15 points). The site must consist of at least four pages and the homepage must use forms. One page must use tables and one must use lists, both may be on the same page. The site must include links to other Websites on the Internet. The site must display images and provide audio and either video or animation output. Each student will present their site in class during the last two weeks of the semester; other students will provide peer reviews (score for various aspects plus a very brief written comment) of each presentation.

Each student is required to write a two to five page paper, with references to books, papers, and Websites comparing and contrasting UNIX and NT based Web Servers (5 points). These papers will be published as HTML pages and linked to the courses Website by the instructor. The printed report and HTML pages will be due the last week of class.

V. FINAL GRADE

The final grade is based on the following:

Tests & Quizzes:	24 points
Laboratories:	39 points
Projects & Reports:	25 points
Attendance & Participation:	<u>12 points</u>
Total	100 points

Course grade is based on the total number of points earned as follows:

- A 90 or more points
- B 80 or more points and less than 90 points
- C 70 or more points and less than 80 points
- D 60 or more points and less than 70 points
- F less than 60 points

VI. COURSE OUTLINE

A. Part 1: Operating Systems

UNIX

1. Booting and start-up
2. Basic Commands
3. Files & Directories
4. Security & File Management

Windows

1. Booting and start-up
2. Basic Commands
3. Files & Directories
4. Security & File Management

Part 1 will require about three weeks and the completion of two laboratory assignments. The 1st examination will follow the completion of this material.

B. Part 2: Basic HTML

1. Text formatting with HTML
2. Links to other "pages"
3. Numbered and unnumbered lists
4. Text and background color
5. Adding images or graphics to Web pages
6. Adding sound or music to Web pages
7. Adding video and animation to Web pages

Part 2 will require about four weeks and the completion of four laboratory assignments. The 1st part of the Internet Web Hosting service report is due at the end of this material. The 2nd examination will follow the completion of the Basic HTML material.

COURSE OUTLINE (cont'd)

C. Part 3: Advanced HTML

1. Forms
2. Frames
3. Tables
4. An introduction to Style Sheets
5. An overview of XHTML and XML

Part 3 will require about four weeks and the completion of four laboratory assignments. The Internet Web Hosting service report and each students Website project are due at the end of this material. The 3rd examination will follow the completion of the Advanced HTML material.

D. Part 4: Server Side "Programming" and Publishing and Maintaining Websites

1. Active Server Pages (ASP) and the Common Gateway Interface
2. An introduction to scripting languages
3. Downloading, installing, and using the Apache Web Server
4. Installing IIS and / or PWS
5. Installing websites on a third party server

Part 4 will require four weeks with time for student presentations and peer reviews and the completion of three laboratory assignments. Each student will present his website and discuss his experience of installing the website on the Internet during the last two weeks of class. Each student's comparison of UNIX and NT Servers is due at the end of this material. The 4th examination will follow the completion of this material.

VII. LABORATORY REQUIREMENTS

The laboratory used in this course must include a high-end personal computer for each student and the instructor, with a projector for the instructor's machine that can be viewed from any position in the room, with adequate lighting for students to take notes.

The PCs should have the Windows operating system (NT, 98, or 2000), the Microsoft Office Suite (Professional edition), Netscape and Internet Explorer Web Browsers, IIS or PWS, and FTP. Students should have access to an in laboratory UNIX Web Server with Apache Web Server installed. The laboratory must have Internet access, a printer, and a scanner.

VIII. ACADEMIC INTEGRITY

A student who a) knowingly represents the work of others as his or her own; b) uses or obtains unauthorized assistance in the execution of any work; or c) completes work for another student is guilty of cheating. Violators will be penalized.

IX. CLASSROOM CONDUCT

It is the students' responsibility to attend all classes. If a student misses a class for any reason, it is his or her responsibility to obtain materials that were handed out, to learn the material that was covered, and to find out about any announcements that were made in class.

Students are expected to be on time for class. If a student arrives late, it is expected that they will take a seat close to the door.

Students are expected to follow ordinary rules of courtesy during class. Private or sidebar conversations, leaving class without prior discussions with the professor (except for an emergency), making unnecessary noise, or using a cellular telephone are disruptive behaviors that will not be tolerated.

The college welcomes all students into environment that creates a sense of community, pride, and respect; we are all here to work cooperatively and to learn together.