PELLISSIPPI STATE TECHNICAL COMMUNITY COLLEGE
MASTER SYLLABUS

ADVANCED INTERNET DEVELOPMENT
CSIT 2880

Class Hours: 3.0  Credit Hours: 4.0
Laboratory Hours: 3.0  Date Revised: Spring 02

NOTE: This course is not designed for transfer credit.

Catalog Course Description:

This course will provide in-depth lecture and lab experiences with those tools, applications, utilities and languages deemed essential to effective web-based product development. Client-side and server-side elements will be explored and used to produce functional environments compatible with current trends in the on-line sector. Extensive use of on-line resources, team-based activities and individual project completion will be the focus of this experience.

Entry Level Standards:

The entering student should have completed all first year CSIT requirements, have a familiarity with the DOS PC operating system, the Windows environment and Internet Browsers and Search engines. The entering student should be able to type at least 23 words per minute with 5 or fewer errors.

Prerequisites:

CSIT 1560 and 1810 and 2645

Textbook(s) and Other Course Materials:

TBA; Project sets will be generated by the instructor.

I. Week/Unit/Topic Basis:

<table>
<thead>
<tr>
<th>Week</th>
<th>Topic</th>
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</thead>
<tbody>
<tr>
<td>1-2</td>
<td>Paint Shop Pro (current version)</td>
</tr>
<tr>
<td></td>
<td>Web page generators</td>
</tr>
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<td></td>
<td>Documenting Object Model</td>
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<tr>
<td>3-4</td>
<td>Cascading Style Sheets</td>
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<tr>
<td></td>
<td>JavaScript</td>
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<tr>
<td>5-6</td>
<td>CGI w/C, Perl and PHP</td>
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<tr>
<td>7-8</td>
<td>eCommerce and On-line Marketing</td>
</tr>
<tr>
<td>9-10</td>
<td>Internet Security</td>
</tr>
<tr>
<td>11-15</td>
<td>SQL and Database Access</td>
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<tr>
<td></td>
<td>Active Server Pages</td>
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<tr>
<td></td>
<td>Server Software</td>
</tr>
<tr>
<td>16</td>
<td>Final Exam Period</td>
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</table>

II. Course Objectives*:
A. Use tools, processes and applications aligned with the commercial marketplace as it applies to Internet page generation. I III IV

B. Use currently viable protocols available on the Internet. III

C. Create commercial pages for use on the World-Wide Web. I III

D. Create Cascading Style sheets. III V IX

E. Discuss in detail the JavaScript language, along with how it is used to add interactivity to web pages. III V IX

F. Develop JavaScript and CGI end-products. I II IV V VI IX XII

G. Work together to plan, develop, and integrate WWW pages meeting specific design criteria. I II III IV V VI VII IX X XI

H. Discuss the ecommerce, database and marketing strategies and apply those strategies to specific client requirements. I IV IX

I. Discuss and apply security measures, SQL, Active Server Pages and Server software elements. I II IV V X

*Roman numerals after course objectives reference goals of the Computer Science and Information Technology program.

III. Instructional Processes*:

Students will:

1. Use professional tools to produce software components and documentation. Technological Literacy Outcome, Personal Development Outcome, Transitional Strategy

2. Create commercial level web pages based upon specifications. Problem Solving and Decision Making Outcome, Technological Literacy Outcome, Transitional Strategy, Active Learning Strategy

3. Participate in a software development team to create web applications. Communication Outcome, Problem Solving and Decision Making Outcome, Transitional Strategy, Active Learning Strategy

4. Practice elements of the work ethic such as punctuality, professionalism, dependability, cooperation, and contribution. Personal Development, Transitional Strategy

5. Present a finished product to the class. Communication Outcome, Personal Development Outcome, Active Learning Strategy


7. Use professionally accepted methods and materials in completion of applications. Technological Literacy Outcome, Personal Development Outcome, Transitional Strategy

8. Communicate effectively to develop final products that meet all requirements and specifications within time constraints. Communication Outcome, Technological Literacy Outcome

*Strategies and outcomes listed after instructional processes reference Pellissippi State’s goals for strengthening general education knowledge and skills, connecting coursework to experiences beyond the classroom, and encouraging students to take active and responsible roles in the educational process.

IV. Expectations for Student Performance*:
Upon successful completion of this course, the student should be able to:

1. Apply protocols in use on the Internet. A, B, C
2. Design and create specification-driven commercial level web pages. B, C, D, E, F
3. Recognize and use Javascripts, CGI, SQL and ASP functional elements. D, E, F
4. Use tools to create, modify, upload and secure web pages. A, B, C, D, E, F
5. Apply knowledge and insight to successfully integrate database information into a functional on-line customer-driven environment. D, E, F
6. Participate as a group member in the design, development and timeline-driven completion of a specified web application. G, H, I
7. Integrate appropriate application component modules into a working final product within given constraints. F, H, I

*Letters after performance expectations reference the course objectives listed above.

V. Evaluation:

A. Testing Procedures: 40% of grade

Exams will comprise 40% of the final grade. Two exams will be given during the course of the semester. Dates will be announced in class and each exam will count 200 points of the final grade. There will be no make-up tests unless prior arrangements have been made with the instructor.

B. Laboratory Expectations: 10% of grade

Lab assignments will be made during the course of the semester. A late penalty will be imposed on any overdue assignment. Failure to satisfactorily complete all labs may result in a grade of F in the course. Labs will count 100 points (10%) of the final grade.

C. Field Work:

N/A

D. Other Evaluation Methods: 50% of grade

1. Individual Project:
One extensive individual project consisting of a set of WWW pages based upon specifications given and interaction with the client (instructor). This project is intended to provide the student with real-world situations, expectations and client interactions. Failure to satisfactorily complete the individual project in the timeframe given may result in a grade of F for the course. This project will count 250 points (25%) of the final grade. A portion of the project grade will be determined by peer evaluation.

2. Group Project:
One extensive group project will be assigned to create a complete web application based upon instructor specifications. This project is intended to familiarize students with more advanced HTML features. It also provides an opportunity for participating in a group application development and integration effort. Failure to satisfactorily complete the group project in the timeframe given may result in a grade of F for the course. This project will count 250 points (25%) of the final grade. A portion of the project grade will be determined by class peer evaluation and another portion by project group peer evaluation.

E. Grading Scale:

900 - 1000  A
800 - 899  B
VI. Policies:

A. Attendance Policy:

Pellissippi State Technical Community College expects students to attend all scheduled instructional activities. As a minimum, students in all courses must be present for at least 75 percent of their scheduled class and laboratory meetings in order to receive credit for the course.

B. Academic Dishonesty:

Plagiarism, cheating, software piracy, non-educational use of computer systems and other forms of academic dishonesty are strictly prohibited.