NOTE: This course is not designed for transfer credit.

Catalog Course Description:

This course is designed to provide comprehensive understanding of programming concepts, syntax and computer language application for developing client-based products. Extensive use of examples, routines, tools, and utilities will be covered. The learner will update and develop programs which perform to specific standards and expectations then test them against predetermined performance standards.

Entry Level Standards:

The entering student should have a familiarity with the HTML, VBScript, JavaScript or another scripting language, DOS and Windows operating systems. Previous high-level programming experience is not expected. Students shall be responsible for having the language being used loaded and functional at their work site.

Prerequisite:

WEB 2300 for WEB majors; GIS 1010 for GIS majors

Textbook(s) and Other Reference Materials Basic to the Course:

Required:
Programming in Visual Basic 6.0 (or newer), 2002 or newer, Bradley and Millspaugh, McGraw-Hill ISBN 0-07-251381-0 (check on-line for current text required)

I. Week/Unit/Topic Basis:

<table>
<thead>
<tr>
<th>Week</th>
<th>Topic</th>
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<tbody>
<tr>
<td>1</td>
<td>Introduction, Language Environment</td>
</tr>
<tr>
<td>2</td>
<td>On-line Resources, Objects, Properties, Concepts, Coding</td>
</tr>
<tr>
<td>3-5</td>
<td>Control Structures, Procedures, Testing and Debugging Applications</td>
</tr>
<tr>
<td>6-10</td>
<td>Forms, Arrays, Data files. Developing Client-Based products</td>
</tr>
<tr>
<td>11-12</td>
<td>Data, Databases and Application integration techniques</td>
</tr>
<tr>
<td>13-14</td>
<td>Graphics, meeting client expectations</td>
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</tbody>
</table>
II. Course Objectives*:

A. Use the syntax of a high level language. I,II

B. Use structured programming concepts, objects, coding, debugging and documentation. I,II,III

C. Use search tools, inquiries, Email, FTP, TELNET and other available resources found on the Internet to locate, use, download, upload and communicate effectively. I,V,VI

D. Effectively utilize a development environment to write programs that meet written requirements and pass tests based on these requirements. I,II,III

E. Demonstrate individual and/or teamwork standards to accomplish given tasks within timeframes established. VI

F. Develop working products that serve specific customer and/or market needs. III,V,VI

G. Write programs to solve a wide variety of problems. I,II,III

H. Implement object-oriented software design techniques. I,II,III

*Roman numerals after course objectives reference goals of the WEB program.

III. Instructional Processes*:

Students will:

1. Produce working programs. Problem Solving and Decision Making Outcome, Technological Literacy Outcome, Information Literacy Outcome, Transitional Strategy, Active Learning Strategy

2. Produce a client-based product as part of a collaborative effort with other class members. Communication Outcome, Personal Development Outcome, Transitional Strategy, Active Learning Strategy

3. Use the Internet as a medium for obtaining documentation and instruction and for submitting assignments. Communication Outcome, Technological Literacy Outcome, Information Literacy Outcome

4. Participate in a software development team. Communication Outcome, Problem Solving and Decision Making Outcome, Transitional Strategy

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

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

7. Participate in a peer review of term projects. Problem Solving and Decision Making Outcome, Communication Outcome, Transitional Strategy, Active Learning Strategy
8. Use professionally accepted methods and materials in completion of program development. 

*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. Recognize data types and operators. A, G
2. Use program control structures. A, B, C
3. Use development tools prevalent in the industry. A, B, C
4. Use graphic user interfaces to perform specific tasks. C, E, F
5. Find resources and information to perform specific tasks. C, D, E
6. Use Web pages and search tools effectively. D, E, F
7. Use communication tools effectively. D, E, F
8. Demonstrate proper use of good programming practices, efficient coding and proper syntax. A, B, C, D, E, F
9. Show effective operational use of available utilities, products, software and hardware. C, D, E
10. Produce documentation, evaluations, performance data, sources of information, results of tasks and tests in a timely, well-organized manner. C, D, E

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

**V. Evaluation**:

A. Testing Procedures: 50% of grade

Quizzes will be given for every chapter covered including on-line handouts. Quizzes and tests count 50% of the final grade. Failure to make a passing quiz average will result in a grade of F for the course.

B. Laboratory Expectations: 50% of grade

Projects count 50% of the final grade. Failure to make a passing project average will result in a grade of F for the course.

C. Field Work:

N/A

D. Other Evaluation Methods:

N/A
E. Grading Scale:

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

VI. Policies:

A. Attendance Policy:

Students will interact with the instructor weekly on-line. Attendance will be part of the interaction, quiz, test and project compliance standard. Pellissippi State Technical Community College expects students to attend all scheduled instructional activities. As a minimum, students in all courses (excluding videotape and Web courses) must be present for at least 75 percent of their scheduled class and laboratory meetings in order to receive credit for the course. (Pellissippi State Catalog)

B. Academic Dishonesty:

Plagiarism, cheating, and other forms of academic dishonesty are prohibited. Students guilty of academic misconduct, either directly or indirectly through participation or assistance, are immediately responsible to the instructor of the class. In addition to other possible disciplinary sanctions which may be imposed through the regular Pellissippi State procedures as a result of academic misconduct, the instructor has the authority to assign an F or a zero for the exercise or examination or to assign an F in the course. (Pellissippi State Catalog)

C. Other Policies:

Communication: You are expected to do your own work in this course (with the exception of one team project). If you are unable to complete an assignment on your own, it is your responsibility to get help from the instructor (before the assignment is due). In the event that you have an emergency beyond your control, you must notify the instructor in advance, if at all possible.

Facilities: Students must have a valid Pellissippi ID to be presented on demand to gain access to Pellissippi facilities.

Americans with Disabilities Policy:
ADA Contact Information
Pellissippi State Technical Community College
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Phone 865-694-6400
Email comments to: asatkowiak@pstcc.cc.tn.us
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