COMPUTER SYSTEMS IN AUTOMOTIVE TECHNOLOGY
CST 2005

Class Hours: 3.0    Credit Hours: 3.0
Laboratory Hours: 0.0
Date Revised: Spring 00

Catalog Course Description:

Development of computer skills used in the automotive technology field. Hands-on instruction and simulation of actual customer/product/corporate online requests.

Entry Level Standards:

The student must have familiarity with the DOS PC, applications and operating systems covered in CST 1010. The student is expected to have algebra skills and technical reading comprehension skills. The student should be able to type twenty words per minute.

Prerequisites:

AMT 1000, MATH 1130

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

Handouts provided by instructor
2 HD 3-1/2" Diskettes

I. Week/Unit/Topic Basis:

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<th>Week</th>
<th>Topic</th>
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<tbody>
<tr>
<td>1</td>
<td>Introduction, Overview, Pre-Test</td>
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<td>2</td>
<td>Fact Finding, On-Line Computing: using data</td>
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<td>3</td>
<td>Automotive Dealership Uses of Computing</td>
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<td>4</td>
<td>Electronic Mail and Shared Resources</td>
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<td>5</td>
<td>Review &amp; Midterm (Written and Hands-On)</td>
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<td>6</td>
<td>Forms Generation, General Applications</td>
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<td>7</td>
<td>Then, Now and Future Computing</td>
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<td>8</td>
<td>Scheduling, AI, Expert and Productivity</td>
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<tr>
<td>9</td>
<td>Finals (Written and Hands-On)</td>
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II. Course Objectives*:
A. Develop an understanding of the terminology associated with computer use in the automotive fields.  III

B. Become familiar with the use of the computer as an on-line communications device.  II, III, VII, VIII, IX, XII

C. Become familiar with various application packages for ordering, billing, inventory, parts locating, cataloging, pricing, shipping and receiving.  II, III, IV, VII, VIII

D. Become familiar with concepts of Internet, CAI, diagnostic and expert system computerized products.  IV, VII, VIII, IX

E. Gain proficiency in the generation of various documents, forms and materials using computer products.  I, VII, VIII, XII

F. Learn the effective use of applications products specific to the automotive repair and service industry.  I, III, IV, VII, VIII, IX, X, XII

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

**III. Instructional Processes***:

Students will:

1. Use the Windows operating system and applications software to perform practical tasks for dealership computing. *Technological Literacy Outcome, Active Learning Strategy, Transitional Strategy*

2. Analyze and solve problems using analytical techniques and use of on-line resources. *Technological Literacy Outcome, Information Literacy Outcome, Numerical Literacy Outcome, Active Learning Strategy, Problem Solving and Decision Making Outcome*

3. Complete a project demonstrating proficiency in an industry standard format. *Technological Literacy Outcome, Information Literacy Outcome, Numerical Literacy Outcome, Active Learning Strategy*

4. Demonstrate an understanding of terminology, processes, products and skill sets associated with the Automotive Computing technologies. *Technological Literacy Outcome, Information Literacy Outcome, Numerical Literacy Outcome, Personal Development Outcome, Active Learning Strategy*

5. Practice elements of the work ethic such as punctuality, professionalism, dependability, cooperation, and contribution. *Personal Development 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. Demonstrate proficiency in using the proper terms, commands, program prompts, automotive and computer terminology and keyboard requests associated with computer use in the automotive field.  A

2. Demonstrate effective use of the terminal, PC, keyboards, disk drives and printers.  A, B
3. Demonstrate a working knowledge of the general capabilities of various software packages in use in the automotive field. A, F

4. Demonstrate proficiency in using e-mail, on-line, order-entry, inventory, parts indexing, cataloging and accounting procedures. B, C, D

5. Demonstrate real-world data verification and update techniques. C, F

6. Demonstrate knowledge of local use of computing resources. A,B,C,E,F

7. Demonstrate proper use of selected software products within given time constraints. C,F

8. Understand the usage of on-line diagnostic tools and resources. A,B,C,D

9. Demonstrate effective learning and service techniques using an expert system. D

10. Generate various forms and documents to meet specific instructor requests using various software products. C, E, F

11. Survey and report on at least one software product in use at the local dealership. C, E, F

12. Develop a report outlining how a real-world customer, corporate, inventory, billing or service problem could be solved using computers. A-F

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

V. Evaluation:

A. Testing Procedures:

There will be one Mid-term written test which will count 100 points. There will be a Final written comprehensive test which will count 100 points. Tests may consist of multiple choice, matching, fill-in-the-blank, performance or short answer questions. There will be no make-up tests unless prior arrangements are made with the instructor.

B. Laboratory Expectations:

One hundred-fifty LAB ASSIGNMENT points must be accumulated to pass this course. Lab attendance is required. Assignments will be given and must be completed and handed in at the expected date and time. No assignment will be accepted more than one meeting date late unless approved in advance by the lab instructor. Lab assignments will count 200 points total. Students MUST earn at least 150 points in lab to pass this course.

C. Field Work:

External information gathering is a formal part of this course. Students will participate in several activities that are incorporated into lab assignments from outside of class.

D. Other Evaluation Methods:

N/A

E. Grading Scale:

350 - 400 pts   A
300 - 349 pts   B
VI. Policies:

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.