INTRODUCTION TO COMPUTERS AND OPERATING SYSTEMS W/ LAB
CST 1010

Class Hours: 2.0  Credit Hours: 3.0
Laboratory Hours: 3.0  Date Revised: Fall

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1999

Catalog Course Description:

A study of current and projected uses of computers in business, scientific, educational, and engineering fields. Topics include hardware, software and software uses, systems, social issues, and options in those fields using computer systems. Emphasis is on microcomputers, word processing, spreadsheets and other application packages found in business and industry today.

NOTE: The course is for non-CST majors only. CST majors will not receive credit for this class toward a degree or certificate in Computer Science Technology. This is a general hands-on computer literacy course. Although this course is not required for transfer credit, it does provide excellent background prior to taking any computer-related courses.

Entry Level Standards:

The entry level student is not expected to have familiarity with computers. The student should be able to use a standard keyboard and maintain 23 words per minute with 5 or fewer errors.

Prerequisites:

None

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

- Required:
  - MS Office 97, by Shelly, Cashman, Course Technology.
  - Discovering Computers 98 A Link to the Future, by Shelly, Cashman, Waggoner, Course Technology.
  - Qty 2 - DS/HD 3-1/2" Floppy Diskettes w/blank labels

- Suggested Optional Supplementals:
  - Outside reading (related magazines) is strongly encouraged.

I. Week/Unit/Topic Basis:

<table>
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<th>Week</th>
<th>Topic</th>
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| 1    | Computer Essentials and Concepts  
|      | Ch 1 in Computer Concepts  
|      | LAB Intro to Hardware, DOS and Windows 95 |
| 2    | Computer Essentials and Concepts  
|      | Ch 1 in Computer Concepts |
LAB Intro to DOS and Windows

3-4 Software and Multimedia
    Ch 2 in Computer Concepts
    LAB Windows 95, Desktop and Features

5-6 Computer Files and Data Storage
    Ch 3 in Computer Concepts
    LAB Intro to Word Processing

7-8 Computer Architecture
    Ch 4 in Computer Concepts
    LAB Word Processing

9-10 Computer Marketplace
    Ch 5 in Computer Concepts
    LAB Intro to Excel

11 Data Security and Control
    Ch 8 in Computer Concepts
    LAB Excel

12 Local Area Networks and Email
    Ch 6 in Computer Concepts
    LAB Email

13-14 The Internet
    Ch 7 in Computer Concepts
    LAB Internet

15 Final Project, Use of Hardware/Software
    Comprehensive Review

16 Comprehensive Final Test

II. Course Objectives*:

A. Develop a working understanding of the terminology associated with modern day computers and associated equipment. III

B. Become familiar with applications software found in business and industry. IV

C. Become familiar with the Word Processor. IV

D. Become familiar with microcomputer operating systems and the PC microcomputer equipment. II,IV

E. Become familiar with spreadsheet and application software. IV

F. Become familiar with a variety of computer hardware devices. II

G. Become familiar with the effect the computer has had on society and the job market. IX

H. Understand how the computer can be utilized for other classes/coursework. VII
I. Demonstrate a fundamental knowledge of the concepts of data, entry, checking, storage and retrieval. II, IV

J. Demonstrate a fundamental knowledge of the need for security, data accuracy and ethical standards. III

*Roman numerals after course objectives reference goals of the Business and Computer Technologies department.

III. Instructional Processes*:

Students will:

1. Use Windows 95, DOS commands and utilities to perform practical tasks for personal computing. Problem Solving and Decision Making Outcome, Technological Literacy Outcome, Information Literacy Outcome, Active Learning Strategy

2. Use computer software packages for submitting lab assignments. Active Learning Strategy, Technological Literacy Outcome, Information Literacy Outcome

3. Use the Internet in discovering new information in solving problems. Problem Solving and Decision Making Outcome, Technological Literacy Outcome, Information Literacy Outcome, Transitional Strategy

4. Practice the elements of the work ethic such as punctuality, professionalism, dependability, 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 proficient use of terminology associated with computers, software and applications products. A,B,C,D,E,F,G,H,I,J

2. Demonstrate an understanding of the use of hardware, firmware, LAN, and systems terminology. A,B,C,D,E,F,G,H,I,J

3. Log-on/boot-up terminal and microcomputer systems. A,E,H,I,J

4. Demonstrate effective use of the word processor software product. B,C,H

5. Use DOS and Windows environment. D,H

6. Demonstrate proficient use of the keyboard and mouse in accessing programs, data and/or files. C,D,F

7. Perform access activities using on-line utilities with email and the Internet. B,D,H

8. Demonstrate proficient use of the desktop tools and menus. A,D,H


10. Gain an understanding of networking and main frame environments. A,F,I

12. Transfer data files to/from one storage device to another.  B,D,I

13. Produce reports using a computer, software product and media resources.  B,C,H,I,J

14. Demonstrate proficient use of all PC resources in accessing files, entering data, keying commands and utilizing the microcomputer.  A,B,C,D,E,F,G,H,I,J

15. Demonstrate proficient use of the spreadsheet and other software products.  B,E,H

16. Read documentation associated with a public domain and/or commercial software product.  A,I

17. Identify external, internal and peripheral computer devices and demonstrate a working knowledge of the function of each.  A,F

18. Read articles from magazines associated with the field and write short briefs about the topics.  G

19. Research newspapers and/or local agencies to develop an understanding of the current local and national computer trends.  G,H

20. Demonstrate an understanding of the need for data accuracy and security.  H,I

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

V. Evaluation:

A. Testing Procedures:

There will be a minimum of three major tests. There will be no makeup tests unless prior arrangements are made with the instructor.

B. Laboratory Expectations:

Lab assignments must be completed and submitted at the expected date and time. There will be a penalty for submitting late assignments. Students will receive an "F" in the course if at least 70% of total lab credits are not earned.

C. Field Work:

None

D. Other Evaluation Methods:

None

E. Grading Scale:

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<tr>
<th>Percentage</th>
<th>Grade</th>
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<tbody>
<tr>
<td>93 - 100</td>
<td>A</td>
</tr>
<tr>
<td>88 - 92</td>
<td>B+</td>
</tr>
<tr>
<td>83 - 87</td>
<td>B</td>
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<tr>
<td>77 - 82</td>
<td>C+</td>
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<tr>
<td>70 - 76</td>
<td>C</td>
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<tr>
<td>60 - 69</td>
<td>D</td>
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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 the computer systems and other forms of academic dishonesty are strictly prohibited. A student caught cheating or infracting specific rules will be given a grade of "F" for the course.