

Computer Technology

Levels: Grades 9-12
Units of Credit: 0.50
CIP Code: 52-0417
Core Code: 32-02-00-00-240
Prerequisite: Basic keyboarding skills.
Skill Test: # 250

COURSE DESCRIPTION

An introduction to computer application software that encompasses document processing, spreadsheets, and presentations. An understanding of ethics and use of operating systems, information resources, and electronic mail is included. Skills will be demonstrated by creating a project for a different content area.

CORE STANDARDS, OBJECTIVES, AND INDICATORS

STANDARD 1

Students will enhance keyboarding skills.

Objective 1:

Students will use correct keyboarding technique. This includes the following:

- Eyes on copy or screen; not on keys.
- Fingers curved and oriented to home row.
- Correct fingers used for keystrokes.
- Key with smooth rhythm and quiet hands.
- Forearms parallel to slant of keyboard; wrists low but not resting on any surface.
- Proper sitting posture: body centered with feet providing balance and elbows naturally at sides.

STANDARD 2

Students will develop knowledge of computer basics and use an operating system.

Objective 1: Review the history of computer technology, progression to systems of today, types of computers used in a variety of settings, and trends for the future.

Objective 2: Identify the major components of microcomputers in the following categories and determine how each contributes to a computer's performance:

- Hardware including: system unit, microprocessor, RAM, ROM, storage devices, input devices, output devices, peripheral devices.
- Software for operating systems and software for applications including: consideration of platform, icons, menus, specialized tasks, and multitasking.

Objective 3: Describe how a computer functions including: boot process, input, data processing, and output.

Objective 4: Become familiar with *General Computer Terminology* available through the *Teacher Helps* link. <http://www.usoe.k12.ut.us/ate/Skills/bus/250.htm>

Objective 5: Identify viruses and destructive programs. Understand the importance of vigilance in their detection, prevention, and repair.

Objective 6: Create a folder structure with primary and secondary folders:

- Save files within the folder structure.
- Use Save As to change file name, location, and/or file type.

- Copy, move, rename, and delete files and folders.

STANDARD 3

Students will apply document-processing skills. Each student will be able to use the following when creating a letter, memo, report, or other business document:

Objective 1: Create a variety of business style documents including:

- Letters – Personal Business, Block, Modified Block, Memos, and Faxes
- Templates – Fax Cover sheets, Resumes and Reports

Objective 2: Create original documents using default settings and word-wrap.

Objective 3: Retrieve, edit, save, and print a document.

Objective 4: Include textual citations and references (bibliography) in a report.

Objective 5: Insert text files, graphics, or other objects into documents.

Objective 6: Change margins, text alignment, line spacing, tabs, indents, and page setup; move and copy text.

Objective 7: Change the typeface and emphasis (font, underscore, italics, and boldface) of existing text.

Objective 8: Proofread and correct all language mechanics errors (grammar, spelling, punctuation, and word usage) in an existing document with the aid of a spell checker, grammar checker, and thesaurus.

STANDARD 4

Students will create spreadsheets and manipulate data. Each student will be able to perform the following tasks:

Objective 1: Create, retrieve, modify, format, save, and print a spreadsheet.

Objective 2: Copy, move, insert, and delete data.

Objective 3: Insert and delete columns and rows.

Objective 4: Calculate with formulas (+, -, *, /) and simple functions (SUM, AVERAGE, MAX, MIN, COUNT).

Objective 5: Sort data.

Objective 6: Create, save, retrieve, print and interpret a chart (graph).

STANDARD 5

Students will demonstrate an understanding of ethics related to computer technology. Each student will be able to demonstrate an understanding of the following topics:

Objective 1: Copyright and license law regarding software, database contents, Internet publications, and other published materials. Recognize the difference in the following:

- Freeware
- Shareware
- Public Domain
- Open Source
- All Rights Reserved

Objective 2: Ethics relating to posting and citing Internet information resources.

Objective 3: The role of an Acceptable Use Policy.

Objective 4: Rights of privacy, intellectual property, property, intent, and accessibility with respect to computer-based information.

STANDARD 6

Students will access on-line information resources. Each student will be able to perform the following tasks:

Objective 1: Use an Internet Browser to:

- Identify a URL
- Navigate a Website/World Wide Web
- Reload/refresh to view Web pages
- Show a history of recently visited Websites

Objective 2: Search the Internet for information using:

- Online databases/catalogs/libraries
- Keyword search engines and category directories (i.e. Google, Yahoo, Ask)

Objective 3: Conduct advanced Internet searches using:

- Boolean Operators (AND, OR, NOT)
- Quotation marks

Objective 4: View and evaluate quality of information on Websites:

- Domains (.edu, .gov, .com, .net, .org, .mil, etc.)
- Authorship and legitimacy (compare conflicting sites, assess the site's legitimacy)
- Identify bias
- Up-to-date

Objective 5: Download Internet resources stored at World Wide Web sites.

STANDARD 7

Students will successfully use electronic mail (email). Using his/her own account, each student will be able to perform the following tasks:

Objective 1: Use email account to perform various functions related to email messages including:

- Send
- Receive
- Reply, Reply all
- Forward

Objective 2: Send a file (word processing document, graphic, etc.) as an attachment to an out-going message. Receive, open, and save an attachment to an email message.

STANDARD 8

Students will create an electronic presentation. The presentation should include the following items:

Objective 1: Use a variety of slide layouts.

Objective 2: Transitions, automatic timing, and animation.

Objective 3: Graphics and text.

Objective 4: Proofread and correct all language mechanics errors (grammar, spelling, punctuation, and word usage) in the presentation.

Objective 5: Understand various view and print options.

Objective 6: Apply design elements (including themes, backgrounds, or color schemes) supporting the tone of the featured topic.

STANDARD 9

Students will use their document processing, spreadsheet, and/or electronic presentation skills to complete a cross curricular project during the semester (or trimester, etc.) in which they are enrolled in the Computer Technology course.

Objective 1: Students will use **any or all** of the following in a project to be presented to the Computer Technology teacher and a cross-curricular teacher: document processing, spreadsheet, electronic, presentation.