



South Central College

# OTEC 2810 Computer Technology

## Course Outcome Summary

### Course Information

<b>Description</b>	This course provides computer technical information that goes beyond the basics for college educated students. It covers not only hardware and software but the new, emerging technology trends that affect computing and everyday life. Topics such as networks, data security, personal privacy, online safety, digital rights, and Internet usage will be addressed. There will be an emphasis on social and ethical issues for thought-provoking course discussions.
<b>Total Credits</b>	3
<b>Total Hours</b>	48

### Types of Instruction

Instruction Type	Credits/Hours
Lecture	

### Pre/Corequisites

None

### Institutional Core Competencies

Communication - Students will be able to demonstrate appropriate and effective interactions with others to achieve their personal, academic, and professional objectives.

Critical and Creative Thinking - Students will be able to demonstrate purposeful thinking with the goal of using a creative process for developing and building upon ideas and/or the goal of using a critical process for the analyzing and evaluating of ideas.

### Course Competencies

#### 1. Operate computer equipment

##### Learning Objectives

- Identify basic computer system components
- Use the mouse and keyboard
- Identify the major components of the Windows desktop
- Start and exit a software program
- Use the menu bar, toolbar, and sizing buttons

#### 2. Identify computer and digital basics

### **Learning Objectives**

Describe digital technology and devices  
Explain input, output, processing, and storage  
Explain digital data representation  
List the principals of secure passwords

## **3. Display knowledge of computer hardware**

### **Learning Objectives**

Label the main components of a pc system  
Describe expansion components and compatibility  
Explain the tasks of the various memories in computers  
List factors that affect microprocessor performance  
Differentiate various disk storage criteria  
Compare computing capabilities of various computers  
Compare and contrast printers and monitors  
List ways to protect your hardware

## **4. Determine the use of computer software**

### **Learning Objectives**

Describe major software categories  
Define operating system platforms and how they manage resources  
List software shopping guidelines  
Describe the rights granted for copyright laws and licenses  
Explain how to install and uninstall software  
Explain how security software works and use antivirus software

## **5. Apply file management and backup**

### **Learning Objectives**

Describe the significance of file format  
Create valid names and paths for files  
Compare the advantages and disadvantages of various backups  
Implement a viable backup and restore plan

## **6. Classify networks and security**

### **Learning Objectives**

Diagram the most common topologies  
Explain the role of various network devices  
Explain communications protocols  
List various ways to share files over a network  
Describe how to setup a wired and wireless network  
List security measures for networks  
Define encryption and how it works

## **7. Identify the various Internet resources**

### **Learning Objectives**

Illustrate the Internet backbone and its components  
Explain the use of IP addresses  
Describe advantages and disadvantages to the various Internet accesses  
Explain the various Internet services  
List factors of a reliable Internet source

## **8. Demonstrate knowledge of Web and E-mail technology**

### **Learning Objectives**

Describe web technology  
Use search engines to create advanced search queries  
Explain how e-mail systems work and use one  
Explain how to test and post Web pages  
Discuss why e-commerce has become so popular

List security issues

## **9. Demonstrate digital media knowledge**

### **Learning Objectives**

Identify digital media audio and video basics

Explain bitmap graphic file components

Explain how to adjust the file size of bitmap graphics

Identify the advantages and disadvantages of different digital media on the Web

List and define digital rights management technologies

### **SCC Accessibility Statement**

South Central College strives to make all learning experiences as accessible as possible. If you have a disability and need accommodations for access to this class, contact the Academic Support Center to request and discuss accommodations. North Mankato: Room B-132, (507) 389-7222; Faribault: Room A-116, (507) 332-7222.

Additional information and forms can be found at: [www.southcentral.edu/disability](http://www.southcentral.edu/disability)

This material can be made available in alternative formats by contacting the Academic Support Center at 507-389-7222.