

Vocational Arts

Montana State Standards For Technology

Technology Content Standard 1 (CS1)

Students demonstrate an understanding of the basic operations of technologies.

Technology Content Standard 2 (CS2)

Students use a variety of technologies to enhance productivity.

Technology Content Standard 3 (CS3)

Students use a variety of technologies for communication.

Technology Content Standard 4 (CS4)

Students use technology responsibly and understand its impact on individuals and society.

Technology Content Standard 5 (CS5)

Students develop the skills, knowledge and abilities to apply a variety of technologies to conduct research, manage information, and solve problems.

Technology Content Standard 6 (CS6)

Students apply technological abilities and knowledge to construct new personal understanding.

Word Processing

ID. Correct keyboard technique (CS1)

The home row, space bar, enter key, letters, numbers, and symbols

2D. Creating, saving, and retrieving documents using MSWord (CS1)

Text formatting and enhancement

3D. Letter Formatting (CS1)

4D. Report Formatting (CS1)

Page Numbers, Footnotes, Endnotes

Paragraph Spacing

5D. Font sizes and styles (CS1)

6I. Table formatting (CS1)

Creating and editing tables

Formulas in tables

7I. Setting Tabs (CS1)

Decimal, Right, Left, Dot Leader

8I. Creating and using the column feature (CS1)

9I. Simple Macros (CS1)

10I. Use the Sort Feature (CS1)

11I. Merging Documents (CS1)

Creating form and data files

Creating mailing labels

12I. Working with simple graphics (CS1)

Saving and inserting into MSWord

AutoShapes and Drawing Tools

Formatting

Advanced Word Processing

1D. Reinforce Word Processing concepts (CS2)

Word Processing office simulation

2D. Advanced graphics (CS2)

Editing graphics

Graphics from the Internet

3I. Desktop Publishing (CS2)

Creating documents using graphics and design features.

Brochures, newsletters, flyers, posters

4I. Introduction to Microsoft PhotoDraw (CS2)

Creating and editing digital photographs

5I. Introduction to Microsoft Publisher (CS2)

Create newsletters, business cards, resumes, etc.

Using images to create documents

Computer Applications

1D. Windows 2000 and Windows XP operating system (CS2)

Use Windows 2000 and XP for file management

2D. Word processing using MSWord (CS2)

Create and edit simple to advanced word processing documents

Columns, tables, report features, tabs, font effects, graphics

3I. Spreadsheets using MS Excel (CS2)

Create simple spreadsheets

Devise calculations and formulas

Create graphs

Work with multiple worksheets

Integrate Excel into other Microsoft Office Programs

4I. Database using MS Access (CS2)

Create and edit tables

Create and edit forms

Create and edit queries

Create and edit reports

Integrate Access into other Microsoft Office Programs

5I. Presentation Graphics using PowerPoint (CS2)

Create and edit a presentation

Adding slides

Text, Table, Chart, Object, Multimedia, Bulleted List Slides

Formatting a presentation

Using Graphics and Animations

Colors, Drawing, and Shapes

Font Effects

Animating a Slideshow

Custom Animation

Slide Transitions

Adding Sound Files to Slides

Running Automatically

Advanced Presentation Features

Linking Slides

Inserting Files into Slides

Integrate PowerPoint into other Microsoft Office Programs

6I. Creating Flash Documents using Macromedia Flash (CS3)

Create simple flash document using drawing tools (CS3)

Create simple animations

7D. Simulated projects to reinforce concepts (CS4)

Accounting I

II. Accounting careers (CS6)

Discuss different career options

2I. Analyzing transactions (CS6)

Analyze into debit and credit parts

3I. Accounting for a service business (sole proprietorship) (CS6)

Use the general journal

4I. Financial statements (CS6)

5I. Cash control systems (CS6)

Checking accounts

6I. Accounting for a merchandising business (partnership) (CS6)

Use special journals

General, Cash Payments, Cash Receipts, Sales, and Purchases Journals

7I. Payroll records (CS6)

Analyzing payroll transactions

8I. Calculating payroll (CS6)

Payroll accounting

Journalizing payroll

9D. Accounting simulations to reinforce concepts (CS4)

10I. Automated accounting (CS5)

Introduce automated accounting

Sole proprietorship and partnership

Accounting II

- 1I. Corporate Accounting **(CS6)**
- 2I. Purchases, Cash Payments, Sales, Cash Receipts, and General Journal **(CS6)**
 - Returns and Allowances
- 3I. Accounting for Uncollectible Accounts **(CS6)**
- 4I. Accounting for Plant Assets Depreciation **(CS6)**
 - Depreciation Expense
 - Disposing of Plant Assets
- 5I. Accounting for Inventory **(CS6)**
 - Cost of Merchandise
- 6I. Accounting for Notes and Interest **(CS6)**
 - Notes Receivable
 - Notes Payable
- 7I. Accounting for Accrued Revenue and Expenses **(CS6)**
- 8I. Financial Statements for a Corporation **(CS6)**
- 9I. Departmentalized Accounting **(CS6)**
 - Sales, Cash Receipts, Purchases, Cash Payments
 - Calculating and Recording Payroll
 - Financial Statements for Departmentalized Accounting
- 10I. Accounting Control Systems **(CS6)**
 - Voucher System
 - Inventory Planning and Valuation
- 11I. General Accounting Adjustments **(CS6)**
 - Accounting for Uncollectible Accounts
 - Accounting for Plant Assets
 - Notes Payable, Prepaid Expenses, and Accrued Expenses
 - Notes Receivable, Unearned Revenue, and Accrued Revenue
- 12D. Automated Accounting **(CS5)**
- 13D. Accounting Simulations to reinforce concepts. **(CS4)**

Cisco I

- 1I. Introduction to Networking (CS6)
 - Connecting to the Internet
 - Network Math
- 2I. Networking Fundamentals (CS6)
 - Networking Terminology
 - Bandwidth
 - Network Models
- 3I. Network Media (CS5)
 - Copper Media
 - Optical Media
 - Wireless Media
- 4I. Cable Testing (CS5)
 - Frequency-based cable testing
 - Signals and Noise
- 5I. Cabling LAN's and WAN's (CS6)
 - Cabling LAN's
 - Cabling WAN's
- 6I. Ethernet Fundamentals (CS6)
 - Ethernet Fundamentals
 - Ethernet Operation
- 7I. Ethernet Technologies
 - 10-Mbps and 100-Mbps Ethernet
 - Gigabit and 10-Gigabit Ethernet
- 8I. Ethernet Switching (CS6)
 - Ethernet Switching
 - Collision domains and broadcast domains
- 9I. TCP/IP Protocol Suite and IP Addressing (CS6)
 - Introduction to TCP/IP
 - Internet Addresses
 - Obtaining and IP Address
- 10I. Routing Fundamentals and Subnets (CS6)
 - Routed Protocols
 - IP Routing Protocols
 - The mechanics of subnetting
- 11I. TCP/IP Transport and Application Layer (CS6)
 - TCP/IP Transport Layer
 - The Application Layer

Cisco II

- 1I. WAN's and Routers **(CS6)**
 - WAN's
 - Routers
- 2I. Introduction to Routers **(CS6)**
 - Operating Cisco IOS Software
 - Starting a Router
- 3I. Configuring a Router **(CS5)**
 - Configure a Router
 - Finishing the Configuration
- 4I. Learning about Other Devices **(CS6)**
 - Discovering and Connecting to Neighbors
 - Getting Information about Remote Devices
- 5I. Managing Cisco IOS Software **(CS6)**
 - Router Boot Sequence and Verification
 - Managing the Cisco File System
- 6I. Routing and Routing Protocols **(CS6)**
 - Introduction to Static Routing
 - Dynamic Routing Overview
 - Routing Protocols Overview
- 7I. Distance Vector Routing Protocols **(CS6)**
 - Distance Vector Routing
 - RIP
 - IGRP
- 8I. TCP/IP Suite Error and Control Messages **(CS6)**
 - Overview of TCP/IP Error Message
 - TCP/IP Suite Control Messages
- 9I. Basic Router Troubleshooting **(CS5)**
 - Examining the Routing Table
 - Network Testing
 - Troubleshooting Route Issues Overview
- 10I. Intermediate TCP/IP **(CS6)**
 - TCP Operation
 - Overview of Transport Layer Ports
- 11I. Access Control Lists (ACLs) **(CS6)**
 - Access Control List Fundamentals
 - Access Control Lists (ACLs)

Cisco III

- 1I. Introduction to Classless Routing (**CS6**)
 - VLSM
 - RIP Version 2
- 2I. Single-Area OSPF (**CS6**)
 - Link-State Routing Protocol
 - Single-Area OSPF Concepts
 - Single-Area OSPF Configuration
- 3I. EIGRP (**CS6**)
 - EIGRP Concepts
 - EIGRP Configuration
 - Troubleshooting Routing Protocols
- 4I. Switching Concepts (**CS6**)
 - Introduction to Ethernet/802.3 LANs
 - Introduction to LAN Switching
 - Switch Operation
- 5I. Switches (**CS6**)
 - LAN Design
 - LAN Switches
- 6I. Switch Configuration (**CS6**)
 - Starting the Switch
 - Configuring the Switch
- 7I. Spanning-Tree Protocol (**CS6**)
 - Redundant Topologies
 - Spanning-Tree Protocol
- 8I. Virtual LANs (**CS6**)
 - VLAN Concepts
 - VLAN Configuration
 - Troubleshooting VLANs
- 9I. Virtual Trunking Protocol (**CS6**)
 - Trunking
 - VTP
 - Inter-VLAN Routing Overview

Cisco IV

- 1I. Scaling IP Addresses (**CS6**)
 - Scaling Networks with NAT and PAT
 - DHCP
- 2I. WAN Technologies (**CS6**)
 - WAN Technologies Overview
 - WAN Technologies
 - WAN Design
- 3I. PPP Protocol (**CS6**)
 - Serial Point-to-Point Links
 - PPP Authentication
 - Configuring PPP
- 4I. ISDN and DDR (**CS6**)
 - ISDN Concepts
 - ISDN Configuration
 - DDR Configuration
- 5I. Frame Relay (**CS6**)
 - Frame Relay Concepts
 - Configuring Frame Relay
- 6I. Introduction to Network Administration (**CS6**)
 - Workstations and Servers
 - Network Management