

**Expanded Core Curriculum (ECC-VI)
For Students with Visual Impairments**

**Technology – VI
Grades 10, 11, 12**

EXPANDED CORE CURRICULUM – VISUALLY IMPAIRED

Technology (ECC-VI-Tech) 10, 11, and 12

PROPOSAL FOR BOARD / AUTHORITY AUTHORIZED COURSES

District Name: Kootenay-Columbia

District Number: 20

Developed By: BC Teachers of the Visually Impaired, PRCVI, SET-BC

Date Developed: January – December 2005

School Name: School District #20 (Kootenay-Columbia)

Principal's Name: Kim Williams, Director of Student Support Services

Board/Authority Approval Date:

Board/Authority Chair Signature:

Course Name: Expanded Core Curriculum – Visually Impaired – Technology

Grade Level of Course: 10, 11 and/or 12

Number of Course Credits: 1, 2, 3 or 4 – dependent on choice of modules

Number of Hours of Instruction: 30 to 120 – dependent on modules selected

Prerequisite(s): Prerequisites, when required, are listed with individual module.

Special Training, Facilities or Equipment Required: See pg. 11

Course Synopsis: See pg. 11

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Expanded Core Curriculum for Students with Visual Impairments – Technology (ECC-VI-Tech)

Special Training, Facilities or Equipment Required

The course instructor should be a qualified teacher of the blind and visually impaired who knows Braille. Additional support, equipment and/or instruction, where required, is outlined in module descriptions.

Course Synopsis

The ECC-VI Technology course is intended to provide blind and visually impaired students with the skills they need to independently support their learning using assistive technologies. The modules provide learning outcomes, curriculum organizers, instructional resources and assessments for qualified Teachers of the Visually Impaired to teach assistive technology to blind and visually impaired students. Low vision students will be able to use assistive hardware and software to enlarge print and images using screen magnification software and video magnification. Students who are blind will be able to complete their schoolwork using Braille reading and writing technology. This will include screen reading software with a refreshable Braille display (RBD) and a Braille note taker.

ECC - VI - Tech Modules

CCTV	Grade 10	Credit = 0.5
Room Viewing	Grade 10	Credit = 0.2
Screen Magnification	Grade 10	Credit = 1.0
Braille Notetaker with RBD	Grade 10, 11, 12	Credit = 4.0
Operating Systems Modifications	Grade 10	Credit = 0.5
Screen Reader with RBD	Grade 10, 11, 12	Credit = 3.0

Rationale

The main focus for technology instruction should be student independence. Instructors should ensure that students can demonstrate all technology skills without assistance. In order to be self-sufficient after graduating from High School, the student must acquire skills for independent technology use, problem solving, and life-long learning.

To support instruction, resource materials specific to each technology module have been carefully selected. These resources are included at the end of each module.

Technology should never be taught for its own sake. Instead, technology should be seen as a tool to accomplish curriculum and real life tasks. Specifically, instruction on Screen Readers should focus on access to mainstream software applications.

The responsible and ethical use of technology is also an important component of instruction. This includes respecting copyright, and registering and updating software. Students with visual impairments who use technology need to learn proper care and maintenance of their own equipment.

Each module compliments aspects of the regular BC high school curriculum by addressing the specific additional challenges the blind or visually impaired student faces. The instruction in “regular courses”, for example a Computer Skills course like Word Processing, is not enough to meet the learning needs of most visually impaired students because instruction is based on students’ accessibility to instructional software and mainstream technology. Skill acquisition requires direct, sequential instruction by trained teachers of students with visual impairments in order to be effective.

ECC – VI – Technology Organizational Structure

Module 1: CCTV

	Credits = 0.5	Number of Hours = 10
<ul style="list-style-type: none">▪ Controls and Ergonomics▪ Operate XY Platform▪ Writing and Drawing▪ Using With Computers▪ Care and Maintenance		

Module 2: Room Viewing

	Credits = 0.2	Number of Hours = 5
<ul style="list-style-type: none">▪ Controls and Ergonomics▪ Scanning and Locating▪ Using with Computers and Other Equipment▪ Care and Maintenance		

Module 3: Screen Magnification

	Credits = 1.0	Number of Hours = 25
<ul style="list-style-type: none">▪ Magnification and Views▪ Enhancements▪ Keyboard Shortcuts▪ Speech Options▪ Custom Configuration Files		

Module 4: Notetakers with Refreshable Braille Display

Level 1	Credits = 1.0	Number of Hours = 25
<ul style="list-style-type: none">▪ Orientation to the Braille Notetaker▪ General Functions▪ Introduction to Menus▪ Basic Word Processing▪ Format Indicators		

Level 2	Credits = 1.0	Number of Hours = 30
<ul style="list-style-type: none"> ▪ Intermediate Word Processing ▪ Formatting ▪ Scientific Calculator ▪ Printing and Embossing Documents ▪ E-text 		

Level 3	Credits = 2.0	Number of Hours = 50
<ul style="list-style-type: none"> ▪ Advanced Word Processing ▪ Specialized Feature Functions (email, web browser, adv. scientific calculator, day timer, etc.) ▪ Advanced Formatting 		

Module 5: Operating System Modifications

	Credits = 0.5	Number of Hours = 10
<ul style="list-style-type: none"> ▪ OS Magnification ▪ OS Appearance ▪ Auditory Enhancements ▪ Word Processor Appearance 		

Module 6: Screen Readers

Level 1	Credits = 1.0	Number of Hours = 25
<ul style="list-style-type: none"> ▪ Basic Windows OS Navigation ▪ Basic Windows Program Navigation ▪ Basic Word Processing ▪ Basic Screen Reading ▪ Basic JAWS Features ▪ Basic File Management 		

Level 2	Credits = 1.0	Number of Hours = 25
<ul style="list-style-type: none"> ▪ Intermediate Windows Skills ▪ Intermediate Word Processing ▪ Other Applications (encyclopedia, calculator, media player) ▪ Internet ▪ Intermediate Screen Reading ▪ Intermediate JAWS 		

Level 3	Credits = 1.0	Number of Hours = 35
<ul style="list-style-type: none"> ▪ Advanced Windows ▪ Other Applications ▪ Advanced Internet ▪ Advanced Screen Reader Features ▪ Advanced File Management 		

Module 1: CCTV Controls and Features (10 Hours)

Prerequisite: None

Facilities and Equipment: Student has access to a stand-alone Closed Circuit Television (CCTV). A CCTV system uses a stand mounted or hand-held video camera to project a magnified image onto a video monitor.

Module Synopsis

This module will give the student opportunities to maximize their functional vision for learning tasks. They will gain independence in the operation of the CCTV for a variety of viewing tasks.

Module 1 Organizational Structure - Curriculum Organizers

Unit	Title	Time (hours)
1	Controls and Ergonomics	2
2	Operate XY Platform	2
3	Writing and Drawing	2
4	Using With Computers	3
5	Care and Maintenance	1
Total Hours:		10

Unit 1: Controls and Ergonomics

Overview

This unit will help students become familiar with CCTV controls.

Curriculum Organizers - Controls and Ergonomics

Learning Outcomes

It is expected that students will:

- access, modify, and customize the control settings (colour, contrast, polarity, magnification, focus) for specific tasks
- modify and customize the equipment and seating position for proper ergonomics

Unit 2: Operate XY Platform

Overview

This unit shows students how to operate the XY platform.

Curriculum Organizers - Operate XY Platform

Learning Outcomes

It is expected that students will:

- position materials correctly on the XY Platform
- demonstrate effective use of the XY Platform by tracking and scanning a variety of document types
- examine details of pictures, maps, diagrams, or objects on the XY Platform

Unit 3: Writing and Drawing

Overview

Students will use the CCTV to assist in writing and drawing.

Curriculum Organizers - Writing and Drawing

Learning Outcomes

It is expected that students will:

- write and draw on the XY Platform while viewing the monitor

Unit 4: Using With Computers

Overview

Students will use the CCTV with a computer.

Curriculum Organizers - Using with Computers (as required)

Learning Outcomes

It is expected that students will:

- demonstrate independence in connecting the CCTV and computer
- demonstrate independence in switching between the CCTV and computer
- demonstrate independence in using both simultaneously in split-screen mode

Unit 5: Care and Maintenance

Overview

Students will be taught care and maintenance of equipment.

Curriculum Organizers - Care and Maintenance

Learning Outcomes

It is expected that students will:

- demonstrate appropriate security, care, and maintenance of equipment

Module 1 Instructional Components

- direct instruction
- indirect instruction
- modeling
- practical creativity
- brainstorming
- videotape

Module 1 Assessment Components

Type of Assessment	Category	Details	Weighting (%)
Formative	Assignments		20%
	Self-evaluations		15%
	Demonstration of skills		40%
Summative	Final Assessment – integration of skills		25%
Total:			100%

Learning Resources

Print Resources

- Carreon, James, "Assistive Technology." In *Itinerant Teaching: Tricks of the Trade for Teachers of Students with Visual Impairments*, by Jean E. Olmstead, 161-178. 2nd ed. New York: AFB Press, 2005.

- Holbrook, M. Cay, and Alan J. Koenig. *Foundations of Education*. 2nd ed. New York: AFB Press, 2000.
- Presley, Ike, and Frances Mary D'Andrea. *Assistive Technology for Students Who Are Blind or Visually Impaired: A Guide to Assessment*. New York: AFB Press, 2009.

Web Resources

- *Tips on How to Use and Buy CCTV's*
<http://www.tsbvi.edu/resources/154-tips-on-how-to-use-and-buy-cctvs>
Provides tips on reading and writing with a CCTV as well as how to use it comfortably.
- *Video Magnifiers*
<http://www.afb.org/Section.asp?SectionID=4&TopicID=31&DocumentID=221>
This website provides detailed information and video clips on video magnifiers and their use.
- *Vision Education of Alberta: Training: Online Modules*
<http://vision.alberta.ca/training/modules.aspx>
An introduction to the implementation of some of the assistive devices that students are using in their educational programs.

Module 2: Room Viewing (5 Hours)

Prerequisite: None

Facilities and Equipment: Student has access to a room viewing system.

Module Synopsis

This module will give the student opportunities to maximize their functional vision for learning tasks. They will gain independence in the operation of the room viewing system for a variety of distance and intermediate viewing tasks.

Module 2 Organizational Structure - Curriculum Organizers

Unit	Title	Time (hours)
1	Controls and Ergonomics	1.5
2	Scanning and Locating	1
3	Using with Computers and Other Equipment	2
4	Care and Maintenance	0.5
Total Hours:		5

Unit 1: Controls and Ergonomics

Overview

Students will use the settings and controls.

Curriculum Organizers - Controls and Ergonomics

Learning Outcomes

It is expected that students will demonstrate ability to:

- access, modify, and customize the control settings for specific tasks
- modify and customize the equipment and seating position for proper ergonomics

Unit 2: Scanning and Locating

Overview

Students will use the room viewer for near and distance tasks.

Curriculum Organizers - Scanning and Locating

Learning Outcomes

It is expected that students will demonstrate ability to:

- scan a room for landmarks to locate a specific target
- adjust control settings depending on proximity and size of target

Unit 3: Using With Computers

Overview

Students will use a room viewer with a computer.

Curriculum Organizers - Using with Computers (as required)

Learning Outcomes

It is expected that students will demonstrate independence in:

- connecting the room viewer to a computer and/or other video devices
- switching between the room view to a computer and/or other video devices

Unit 4: Care and Maintenance

Overview

Students will care for their room viewer.

Curriculum Organizers - Care and Maintenance

Learning Outcomes

It is expected that students will:

- demonstrate appropriate security, care, and maintenance of equipment

Module 2 Instructional Components

- direct instruction
- indirect instruction
- modeling
- practical creativity
- brainstorming
- videotape

Module 2 Assessment Components

Type of Assessment	Category	Details	Weighting (%)
Formative	Assignments		20%
	Self-evaluations		15%
	Demonstration of skills		40%
Summative	Final Assessment – integration of skills		25%
Total:			100%

Learning Resources

Print Resources

- Carreon, James, “Assistive Technology.” In *Itinerant Teaching: Tricks of the Trade for Teachers of Students with Visual Impairments*, by Jean E. Olmstead, 161-178. 2nd ed. New York: AFB Press, 2005.
- Holbrook, M. Cay, and Alan J. Koenig. *Foundations of Education*. 2nd ed. New York: AFB Press, 2000.
- Presley, Ike, and Frances Mary D’Andrea. *Assistive Technology for Students Who Are Blind or Visually Impaired: A Guide to Assessment*. New York: AFB Press, 2009.

Web Resources

- *Tips on How to Use and Buy CCTV’s*
<http://www.tsbvi.edu/resources/154-tips-on-how-to-use-and-buy-cctvs>
Provides tips on reading and writing with a CCTV as well as how to use it comfortably.

- *Video Magnifiers*
<http://www.afb.org/Section.asp?SectionID=4&TopicID=31&DocumentID=221>
This website provides detailed information and video clips on video magnifiers and their use.
- *Vision Education of Alberta: Training: Online Modules*
<http://vision.alberta.ca/training/modules.aspx>
An introduction to the implementation of some of the assistive devices that students are using in their educational programs.

Module 3: Screen Magnification (25 Hours)

Prerequisite: Basic computer skills (installation, menu or toolbar access, troubleshooting).

Facilities and Equipment: Student has access to a computer with screen magnification software.

Module Synopsis

Students will explore the features provided by screen magnification software to customize levels of magnification, views, colours, and mouse and cursor enhancements. Students will customize their settings and save these as personal configurations. They will also learn and practice the software's keyboard shortcuts. Students will investigate speech options including screen reading and typing echo.

Module 3 Organizational Structure - Curriculum Organizers

Unit	Title	Time (hours)
1	Magnification and Views	5
2	Enhancements (Colour, Pointer, Cursor)	5
3	Keyboard Shortcuts	5
4	Speech Options	5
5	Custom Configuration Files	5
Total Hours:		25

Unit 1: Magnification and Views

Overview

Students will use features for magnification.

Curriculum Organizers - Magnification and Views

Learning Outcomes

It is expected that students will:

- access, modify, and customize the magnification and view features for specific tasks

Unit 2: Enhancements

Overview

Students will learn to customizing to suit individual needs.

Curriculum Organizers - Enhancements

Learning Outcomes

It is expected that students will:

- access, modify, and customize the colour, pointer, and cursor features for specific tasks

Unit 3: Keyboard Shortcuts

Overview

Students will use controls via keyboard commands.

Curriculum Organizers - Keyboard Shortcuts

Learning Outcomes

It is expected that students will:

- learn and use the software's keyboard shortcuts proficiently
- customize keyboard shortcuts as required

Unit 4: Speech Options

Overview

Students will acquire skills in software verbosity features.

Curriculum Organizers - Speech Options

Learning Outcomes

It is expected that students will:

- explore software speech options including typing echo and screen reading
- customize speech options as required

Unit 5: Custom Configuration Files

Overview

Students will learn how to customize software to meet their individual needs.

Curriculum Organizers - Custom Configuration Files

Learning Outcomes

It is expected that students will:

- save their personal software settings as a new default
- customize software settings for specific applications

Module 3 Instructional Components

- direct instruction
- indirect instruction
- modeling
- practical creativity
- brainstorming
- videotape

Module 3 Assessment Components

Type of Assessment	Category	Details	Weighting (%)
Formative	Assignments		20%
	Self-evaluations		15%
	Demonstration of skills		40%
Summative	Final Assessment – integration of skills		25%
Total:			100%

Learning Resources

Print Resources

- Carreon, James, “Assistive Technology.” In *Itinerant Teaching: Tricks of the Trade for Teachers of Students with Visual Impairments*, by Jean E. Olmstead, 161-178. 2nd ed. New York: AFB Press, 2005.
- Holbrook, M. Cay, and Alan J. Koenig. *Foundations of Education*. 2nd ed. New York: AFB Press, 2000.
- Presley, Ike, and Frances Mary D’Andrea. *Assistive Technology for Students Who Are Blind or Visually Impaired: A Guide to Assessment*. New York: AFB Press, 2009.

Web Resources

- *Computing @ UW Madison*
<http://www.doit.wisc.edu/accessibility/video/screen-magnification.aspx>
 This website offers a short video of two visually impaired people demonstrating how to navigate the web using Zoomtext.
- *SET BC – Special Education Technology BC*
<http://www.setbc.org>
 In the Learning Center, guides, webcasts, tutorials and software demonstrations about screen magnification can be found.
- [ALT-VI – Access to Literacy through Technology for Persons with Visual Impairments \(2003\)](#)

- [Webcast – Screen Magnification Using Zoomtext](#)
- [Tutorials- Screen Magnification](#)
- [Software Demonstrations/Screen Captures – Zoomtext 8.0](#)
- [Zoomtext 8.0 - Tips and Tricks](#)

- *Tips on How to Use and Buy CCTV's*
<http://www.tsbvi.edu/resources/154-tips-on-how-to-use-and-buy-cctvs>
 Provides tips on reading and writing with a CCTV as well as how to use it comfortably.

- *Video Magnifiers*
<http://www.afb.org/Section.asp?SectionID=4&TopicID=31&DocumentID=221>
 This website provides detailed information and video clips on video magnifiers and their use.

- *Vision Education of Alberta: Training: Online Modules*
<http://vision.alberta.ca/training/modules.aspx>
 An introduction to the implementation of some of the assistive devices that students are using in their educational programs.

- *Windows 7 Accessibility Tutorials*
<http://www.microsoft.com/enable/training/windows7/default.aspx>
 Microsoft provides step-by-step tutorials using the accessibility utilities. Using the accessibility wizard, one can learn to set options to view the screen.

- *ZoomText*
<http://idrc.ocad.ca/index.php/component/content/article/52-resources/online-resources/tutorials/quick-guides/140-zoom-text>
 A tutorial on how to adjust magnification using ZoomText.

- *ZoomText Xtra*
<http://www.atto.buffalo.edu/registered/Tutorials/zoomtext/index.php>
 The tutorials provide step-by-step instruction and practice exercises to be used with the actual products. Each tutorial is designed into modules with specific tasks.

Module 4: Braille Notetaker with Refreshable Braille Displays: Level 1 (25 Hours)

Prerequisite: Student has completed prebraille competencies.

Facilities and Equipment: Student will need access to Braille Notetaker with refreshable Braille display.

Module Synopsis

This module will focus on familiarizing the student with the layout of the note taking device including the keyboard, the navigation keys, the Braille display, routing cursor and the peripheral ports.

Module 4 (Level 1) Organizational Structure - Curriculum Organizers

Note: There are currently three levels of instruction on the Braille Notetaker.

Unit	Title	Time (hours)
1	Orientation to the Braille Notetaker Navigation Keys Braille Display Cursor Routing Keyboard Peripheral Ports	2
2	General Functions Speech Settings	1
3	Introduction to Menus Word Processing Menu Options Menu	8
4	Basic Wordprocessing Create a New Document Edit a Document Navigating	12
5	Format Indicators Common Indicators	2
Total Hours:		25

Unit 1: Orientation to the Braille Notetaker

Overview

Students will use the controls of Braille Notetaker in order to access the features and functions.

Curriculum Organizers - Navigation Keys

Learning Outcomes

It is expected that students will be able to:

- use the navigation keys to navigate through menus and lists (Previous, Back, Advance, Next)

Curriculum Organizers - Braille Display

Learning Outcomes

It is expected that students will be able to:

- turn the Braille display on and off
- use the Braille display in conjunction with the navigation keys to read prompts and documents and to navigate through menus

Curriculum Organizers - Cursor Routing

Learning Outcomes

It is expected that students will be able to:

- recognize and locate the cursor routing keys
- use the cursor routing keys when editing

Curriculum Organizers - Keyboard

Learning Outcomes

It is expected that students will be able to:

- use keyboard to execute commands for navigation

Curriculum Organizers - Peripheral Ports

Learning Outcomes

It is expected that students will be able to:

- locate ports to connect hardware (AC adaptor, printer, embosser, disk drive, earphones)
- locate the on/off switch and the reset button

Unit 2: General Functions

Overview

This unit will teach the student to adjust the speech setting for individual preferences.

Curriculum Organizers - Speech Settings

Learning Outcomes

It is expected that students will be able to:

- turn speech on and off
- change speech volume, pitch and rate
- adjust echo

Unit 3: Introduction to Menus

Overview

The student will explore and navigate through the word processing menu and the options menu to learn to apply and practice the basic features of the word processing program.

Curriculum Organizers - Word Processing Menu

Learning Outcomes

It is expected that students will be able to:

- access the word processing menu
- perform the following tasks; create, open, emboss, and print a document

Curriculum Organizers - Options Menu

Learning Outcomes

It is expected that students will be able to:

- customize their notetaker for personal use (date/time, speech setting, grade of Braille)

Unit 4: Basic Word Processing

Overview

This unit will give the student further practice in using the word processor menu to learn basic word processing skills such as creating and editing documents and deleting and inserting text. Students will also learn how to move within their document.

Curriculum Organizers - Create a New Document

Learning Outcomes

It is expected that students will be able to:

- go to the word processor option from the main menu and select either; create, save, emboss or print a document

Curriculum Organizers - Edit a Document

Learning Outcomes

It is expected that students will be able to:

- insert a character, word, sentence or any amount of text
- learn the various delete commands (current character / word, last character, previous word, sentence, paragraph or document)

Curriculum Organizers - Navigating

Learning Outcomes

It is expected that students will be able to:

- move the cursor to the top and bottom of a document
- read a document by; character, word, sentence or continuous text

Unit 5: Format Indicators

Overview

The student will learn the basic commands to begin formatting their documents. They will also be taught to recognize these common indicators on the Braille display.

Curriculum Organizers - Common Indicators

Learning Outcomes

It is expected that students will be able to:

- indicate the start of a new paragraph
- indicate the start of a new page

Module 4 (Level 1) Instructional Components

- direct instruction
- indirect instruction
- modeling
- practical creativity
- brainstorming
- videotape

Module 4 (Level 1) Assessment Components

Type of Assessment	Category	Details	Weighting (%)
Formative	Assignments		20%
	Self-evaluations		15%
	Demonstration of skills		40%
Summative	Final Assessment – integration of skills		25%
Total:			100%

Learning Resources

Print Resources

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- Holbrook, M. Cay, and Alan J. Koenig. *Foundations of Education*. 2nd ed. New York: AFB Press, 2000.
- Presley, Ike, and Frances Mary D'Andrea. *Assistive Technology for Students Who Are Blind or Visually Impaired: A Guide to Assessment*. New York: AFB Press, 2009.

Web Resources

- *Assistive Technology Center*
<http://www.csb-cde.ca.gov/Documents/technology.htm>
A general link to all of the California School for the Blind technology curriculums.
- *Braille Sense Plus Visual Guides (2009)*
http://www.setbc.org/setbc/vision/braille_sense_plus_guides.html
Includes video and text presentations.
- *BrailleNote Tutorial*
<http://blindhow.com/posts/351#content>
Updated tutorials for teaching the BrailleNote.
- *Instant Access to Braille: Tutorials*
<http://cat.buffalo.edu/refreshablebraille/training.php>
Text and Powerpoint tutorials.
- *PAC Mate BX Visual Guides (2008)*
http://www.setbc.org/setbc/vision/pac_mate_2008.html
This collection of visual guides and tutorials supports teams and students using the PAC Mate BX.
- *PAC Mate Documentation*
www.freedomscientific.com/fs_support/doc_accessiblepda.asp
PAC Mate documentation from Freedom Scientific's website.

Module 4: Braille Notetaker with Refreshable Braille Displays: Level 2 (30 Hours)

Prerequisite: Completion of Module 4, Level 1.

Facilities and Equipment: Access to Braille Notetaker with refreshable Braille display.

Module Synopsis

This module will focus on familiarizing the student with intermediate word processing, formatting, scientific calculators, printing and embossing documents and e-text.

Module 4 (Level 2) Organizational Structure - Curriculum Organizers

Unit	Title	Time (hours)
1	Intermediate Word Processing Creating Files and Folders Editing (spell check, block text)	10
2	Formatting Formatting a Document in Both Braille and Print (centre, justify, underline, font, page numbers, margins, paragraphs and headings)	10
3	Scientific Calculator Introduction to Basic Math Operations	5
4	Printing and embossing documents Connecting to Hardware Devices	1
5	E-text Access E-text (Internet, Scanning, Disk, etc.)	4
Total Hours		30

Unit 1: Intermediate Word Processing

Overview

This unit will teach the student how to organize and edit their documents. They will learn more advanced word processing skills using the spellchecker feature of the Braille Notetaker. They will also learn the block commands necessary to manipulate text.

Curriculum Organizers - Creating Files and Folders

Learning Outcomes

It is expected that students will be able to:

- create, rename, and delete files and folders (by using the file manager menu and folder manager menu)

Curriculum Organizers - Editing

Learning Outcomes

It is expected that students will be able to:

- open and close the check spelling feature
- apply the features of the spellchecker to edit a document (correct word, add word to the dictionary, skip, ignore, look up word in the dictionary)
- manipulate blocks of text (mark a passage to copy, move or delete)

Unit 2: Formatting

Overview

This unit will teach the student some elements of page layout necessary for both print and Braille documents. These will include skills such as centering, left justifying, underlining, font, page numbers, and setting margins. They will also learn to create headings and subheadings.

Curriculum Organizers - Formatting

Learning Outcomes

It is expected that students will be able to:

- format a Braille document
- format a Braille document for ink printing (centre, page number, etc.)

Unit 3: Scientific Calculator

Overview

This unit will teach the student how to perform basic math operations using the calculator feature.

Curriculum Organizers - Introduction to Basic Math Operations

Learning Outcomes

It is expected that students will be able to:

- add, subtract, multiply, and divide using the features of the scientific calculator
-

Unit 4: Printing and Embossing Documents

Overview

This unit focuses on giving the student experience connecting their portable device to other hardware devices such as a print printer, Braille embosser, and a computer.

Curriculum Organizers - Connecting to Hardware Devices

Learning Outcomes

It is expected that students will be able to:

- connect the Braille note taker to a Braille embosser, ink printer and computer
-

Unit 5: E-text

Overview

This unit will teach the student to open, read, and save electronic material.

Curriculum Organizers - Access E-text

Learning Outcomes

It is expected that students will be able to:

- open, read, and save electronic material

Module 4 (Level 2) Instructional Components

- direct instruction
- indirect instruction
- modeling
- practical creativity
- brainstorming
- videotape

Module 4 (Level 2) Assessment Components

Type of Assessment	Category	Details	Weighting (%)
Formative	Assignments		20%
	Self-evaluations		15%
	Demonstration of skills		40%
Summative	Final Assessment – integration of skills		25%
Total:			100%

Learning Resources

Print Resources

- Carreon, James, “Assistive Technology.” In *Itinerant Teaching: Tricks of the Trade for Teachers of Students with Visual Impairments*, by Jean E. Olmstead, 161-178. 2nd ed. New York: AFB Press, 2005.
- Holbrook, M. Cay, and Alan J. Koenig. *Foundations of Education*. 2nd ed. New York: AFB Press, 2000.
- Presley, Ike, and Frances Mary D’Andrea. *Assistive Technology for Students Who Are Blind or Visually Impaired: A Guide to Assessment*. New York: AFB Press, 2009.

Web Resources

- *Assistive Technology Center*
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A general link to all of the California School for the Blind technology curriculums.

- *Braille Sense Plus Visual Guides (2009)*
http://www.setbc.org/setbc/vision/braille_sense_plus_guides.html
Includes video and text presentations.
- *BrailleNote Tutorial*
<http://blindhow.com/posts/351#content>
Updated tutorials for teaching the BrailleNote.
- *Instant Access to Braille: Tutorials*
<http://cat.buffalo.edu/refreshablebraille/training.php>
Text and Powerpoint tutorials.
- *PAC Mate BX Visual Guides (2008)*
http://www.setbc.org/setbc/vision/pac_mate_2008.html
This collection of visual guides and tutorials supports teams and students using the PAC Mate BX.
- *PAC Mate Documentation*
www.freedomscientific.com/fs_support/doc_accessiblepda.asp
PAC Mate documentation from Freedom Scientific's website.

Module 4: Braille Notetaker with Refreshable Braille Displays: Level 3 (50 Hours)

Prerequisite: Completion of Module 4, Level 2.

Facilities and Equipment: Access to a Braille Notetaker with refreshable Braille display.

Module Synopsis

This module will focus on familiarizing the student with advanced word processing, specialized feature functions and advanced formatting.

Module 4 (Level 3) Organizational Structure - Curriculum Organizers

Unit	Title	Time (hours)
1	Advanced Word Processing File Management	5
2	Specialized feature functions E-mail (and attachments) Web Browser Advanced Scientific Calculator Day Timer (planner) Address Lists	25
3	Advanced Formatting Braille (layout, page setting, etc.) Print (bibliography, letters, resumes, outlines, etc.)	20
Total Hours:		50

Unit 1: Advanced Word Processing

Overview

This unit will teach the student how to organize and access files and folders efficiently. They will also learn to copy and protect files.

Curriculum Organizers - File Management

Learning Outcomes

It is expected that students will be able to:

- select files, folders and drives
- check spelling of files and folders
- copy files
- protect files

Unit 2: Specialized Feature Functions

Overview

This unit introduces e-mail, web browsing, advanced features of the scientific calculator, day timer and address lists. The student will learn to communicate with e-mail and search the internet. Students will learn to organize their day using a day timer and create address lists.

Curriculum Organizers - E-mail

Learning Outcomes

It is expected that students will be able to:

- download and read e-mail (new and stored)
- write and send e-mail (including forwarding and attachments)
- create folders to store messages
- set up address lists

Curriculum Organizers - Web Browser

Learning Outcomes

It is expected that students will be able to:

- browse the web using a search engine
- download files
- add favourites
- handle on-line forms

Curriculum Organizers - Advanced Scientific Calculator

Learning Outcomes

It is expected that students will be able to:

- perform trigonometric, logarithmic, and exponential functions
- work with squares, square roots, powers, and roots

Curriculum Organizers - Day Timer (Planner)

Learning Outcomes

It is expected that students will be able to:

- enter appointments
- reschedule appointments
- set audible alarm with any appointment

Curriculum Organizers - Address Lists

Learning Outcomes

It is expected that students will be able to:

- create address lists with names, phone numbers and other data
- apply features of the address list (search names and addresses, edit, delete, insert into document, etc.)

Unit 3: Advanced Formatting

Overview

The student will use layout features to produce a quality finished product.

Curriculum Organizers - Braille

Learning Outcomes

It is expected that students will be able to:

- use layout features (tabs)
- apply layout indicators
- adjust page settings (paper length and width, margins)

Curriculum Organizers - Print

Learning Outcomes

It is expected that students will be able to:

- properly format bibliographies, letters, resumes, outlines, etc.

Module 4 (Level 3) Instructional Components

- direct instruction
- indirect instruction
- modeling
- practical creativity
- brainstorming
- videotape

Module 4 (Level 3) Assessment Components

Type of Assessment	Category	Details	Weighting (%)
Formative	Assignments		20%
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	Demonstration of skills		40%
Summative	Final Assessment – integration of skills		25%
Total:			100%

Learning Resources

Print Resources

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- *PAC Mate Documentation*
www.freedomscientific.com/fs_support/doc_accessiblepda.asp
PAC Mate documentation from Freedom Scientific's website.

Module 5: Operating System Modifications (10 Hours)

Prerequisite: None.

Facilities and Equipment: Windows computer.

Module Synopsis

This module will familiarize the student with operating systems, magnification and auditory enhancements.

Module 5 Organizational Structure - Curriculum Organizers

Unit	Title	Time (hours)
1	Operating System Magnification OS Magnification vs. Screen Magnification Software Magnifier	1
2	Operating System Appearance Accessibility Wizard Display Control Panel Mouse Control Panel Start Menu Folder Views	5
3	Auditory Enhancements Narrator Volume, Alerts, Special Key Notifications	2
4	Word Processor Appearance Text, Customize Menu Items and Tool Bars Disable Auto Features	2

Unit 1: Operating System Magnification

Overview

In this unit, instructors will assist students in determining whether the magnification options in the OS are sufficient to meet their needs. Students will also learn how to operate the OS magnification feature.

Curriculum Organizers - OS magnification vs. Screen Magnification Software

Learning Outcomes

It is expected that students will:

- understand whether screen magnification software is necessary based on the results of their functional vision assessment
- if using screen magnification software, make all changes to the screen and mouse pointer appearance using that software instead of making the changes in Windows

Curriculum Organizers - Magnifier

Learning Outcomes

It is expected that students will:

- know how to locate and run Magnifier
- know how to set the magnification level, tracking options and colours
- know how to change the size and position of the magnification windows
- know the shortcut keys for the Magnifier program

Unit 2: Operating System Appearance

Overview

In this unit, students will set visual enhancements using the Accessibility Wizard, the Display Control Panel, and the Mouse Control Panel. They will also customize the Start Menu and their Folder View Options.

Curriculum Organizers - Accessibility Wizard

Learning Outcomes

It is expected that students will:

- understand that a Wizard allows you to make changes within a few preset options
- find and run the Wizard
- make appropriate selections for mouse pointer and screen appearance
- understand that Wizard settings correlate to the Control Panel Display, Mouse, and Accessibility settings
- know how to cancel Wizard settings by going to the Display control panel and selecting Windows XP style (in the Appearance tab)

Curriculum Organizers - Display Control Panel

Learning Outcomes

It is expected that students will:

- understand that the Display control panel allows you to fully customize the appearance of the screen
- understand changes made using the Wizard or the Display control panel cannot be reset by a general default button
- document all changes made using the Wizard or the Display control panel
- locate and open the settings in the Display control panel
- know how to right click on a dialogue box item to get its description
- on the Appearance tab select either Windows XP or Windows Classic style
- on the Appearance tab select a colour scheme
- on the Appearance tab select a font size
- on the Appearance tab make appropriate changes within the Effects dialogue box
- on the Appearance tab customize the appearance of individual items (e.g. menus, title bars, scroll bars, selected text)
- on the Appearance tab know how to adjust horizontal and vertical icon spacing to avoid truncated titles

Curriculum Organizers - Mouse Control Panel

Learning Outcomes

It is expected that students will:

- locate and open the Mouse control panel
- on the Pointers tab of the Mouse properties dialogue box select the appropriate pointer scheme
- on the Pointer options tab, adjust motion, snap to, and visibility options

Curriculum Organizers - Start Menu

Learning Outcomes

It is expected that students will:

- access the Start Menu properties by right clicking on the Start Menu
- customize the appearance of the Start menu (icon size and number) in either XP or Classic view

- be able to add frequently used programs to the Start Menu in Classic view

Curriculum Organizers - Folder Views

Learning Outcomes

It is expected that students will:

- set the view for any folder to List or Details using the View menu for that folder
- optionally remove left pane from folders by choosing the Tools menu / Folder Options / General / Use Windows Classic folder
- optionally select which details to show in Details view by choosing the View menu / choose details
- optionally sort files by name, size, type or date modified in Details view by opening the View menu / "Arrange Icons by"
- apply the List or Details view for one folder to all folders in Folder Options under the Tools menu (View tab) in any open folder

Unit 3: Auditory Enhancements

Overview

In this unit, student will learn to operate Windows Narrator. They will also learn to set volume levels, Windows Alert Sounds, and Special Key Notifications.

Curriculum Organizers - Narrator

Learning Outcomes

It is expected that students will:

- locate and run the Narrator program
- configure Narrator options in the Narrator dialogue box
- adjust the speed, volume or pitch of the Narrator program
- stop Narrator by pressing the Control key
- know how to have Narrator read menus and List views using the arrow keys
- understand the limitations of Narrator especially typing echo and accurate menu reading
- know how to exit Narrator

Curriculum Organizers - Volume, Alerts and Special Key Notifications

Learning Outcomes

It is expected that students will:

- locate and adjust the volume control in the Taskbar
- locate and open Sounds and Audio Devices Control Panel
- optionally assign alert sounds to Windows events such as start and exit Windows and low battery
- optionally turn on auditory notifications if using Sticky keys or Filter keys in the Accessibility Options control panel

Unit 4: Word Processor Appearance

Overview

In this unit, students will learn how to adjust text appearance. They will also customize menu items and toolbars and optionally disable auto features.

Curriculum Organizers - Text Appearance

Learning Outcomes

It is expected that students will:

- change the font
- change the size of the text
- change the zoom level

Curriculum Organizers - Customize Menu Items and Toolbars

Learning Outcomes

It is expected that students will:

- know how to open the Customize dialogue box in the Tools menu
- determine which toolbars to show (Toolbars tab)
- determine which commands to show on menus or toolbars (Commands tab)
- know how to activate full menus (Options tab)
- know how to activate large icons (Options tab)

Curriculum Organizers - Disable Auto Features

Learning Outcomes

It is expected that students will:

- review the auto correct options in Tools / Auto correct options / Auto Format and also Auto Format As You Type
- optionally disable Auto correct features
- optionally disable auto format as you type (such as numbered and bulleted lists)

Module 5 Instructional Components

- direct instruction
- indirect instruction
- modeling
- practical creativity
- brainstorming
- videotape

Module 5 Assessment Components

Type of Assessment	Category	Details	Weighting (%)
Formative	Assignments		20%
	Self-evaluations		15%
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Summative	Final Assessment – integration of skills		25%
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Learning Resources

Print Resources

- Carreon, James, "Assistive Technology." In *Itinerant Teaching: Tricks of the Trade for Teachers of Students with Visual Impairments*, by Jean E. Olmstead, 161-178. 2nd ed. New York: AFB Press, 2005.

- Holbrook, M. Cay, and Alan J. Koenig. *Foundations of Education*. 2nd ed. New York: AFB Press, 2000.
- Presley, Ike, and Frances Mary D'Andrea. *Assistive Technology for Students Who Are Blind or Visually Impaired: A Guide to Assessment*. New York: AFB Press, 2009.

Web Resources

- *Vision Education of Alberta: Training: Online Modules*
<http://vision.alberta.ca/training/modules.aspx>
An introduction to the implementation of some of the assistive devices that students are using in their educational programs.
- *Windows 7 Accessibility Tutorials*
<http://www.microsoft.com/enable/training/windows7/default.aspx>
Microsoft provides step-by-step tutorials using the accessibility utilities. Using the accessibility wizard, one can learn to set options to view the screen.

Other Resources

- Windows Help and Support is located in the Start Menu. Type "Ease of Access Centre"

Module 6: Screen Readers with Braille Display: Level 1 (25 hours)

Prerequisite: None

Facilities and Equipment: Computer with JAWS screen reader and Braille Display (recommended).

Module Synopsis

This module will familiarize the student with using JAWS and Windows for basic functions.

Module 6 (Level 1) Organizational Structure - Curriculum Organizers

Unit	Title	Time (hours)
1	Basic Windows Navigation Desktop Navigate the Taskbar Navigate the Start Menu	3
2	Basic Windows Application Navigation Working in a Window Working in a Dialogue Box	5
3	Basic Word Processing Entering Text Manipulating Word Processing Files Editing Basic Formatting	7
4	Basic Screen Reading	3
5	Basic JAWS Features and Parameters Launching JAWS Virtual Viewer Tracking JAWS Skills Basic JAWS Parameters JAWS and the Keyboard	3
6	Basic File and Folder Management Windows Explorer	4
Total Hours:		25

Unit 1: Basic Windows Navigation

Overview

In this unit, students will explore a variety of ways to access the Desktop, Taskbar, and Start Menu. They will also learn to perform some basic task such as checking the time, volume, and laptop battery level and restarting or shutting down the computer.

Curriculum Organizers - Desktop

Learning Outcomes

It is expected that students will be able to:

- use JAWS Virtual Viewer (contextual help) for cues about navigating specific environments
- navigate the Desktop
- minimize all open windows and put focus back on the Desktop

Curriculum Organizers - Navigate the Taskbar

Learning Outcomes

It is expected that students will be able to:

- navigate on the Taskbar
- access the Window List of running applications
- access the System Tray List
- check the time
- adjust the computer sound level
- check the computer battery level (laptops only)
- switch between open applications and windows

Curriculum Organizers - Navigate the Start Menu

Learning Outcomes

It is expected that students will be able to:

- access the Start Button
- navigate Start Button menus and submenus
- launch programs from Start Menu
- discover and use underlined letters as hot keys
- shut down or restart the computer

- understand that the Start Menu can be customized

Unit 2: Basic Windows Application Navigation

Overview

In this unit, students will learn to access basic features which are consistent across most Windows applications. These include standard ways of accessing application windows, menus, and dialogue box controls.

Curriculum Organizers - Working in a Window

Learning Outcomes

It is expected that students will be able to:

- access title bar and status line of a window
- access Application Control Menu to maximize, minimize, restore and close windows
- access and navigate on the menu bar
- navigate menus and submenus
- discover and use underlined letters and hot keys for menu items
- set Views for a window

Curriculum Organizers - Working in a Dialogue Box

Learning Outcomes

It is expected that students will be able to:

- use JAWS Contextual Help for information about dialogue box controls and navigation
- navigate in single and multi-page dialogue boxes
- understand different types of controls in a dialogue box and how to activate them
- discover and use underlined letters in a dialogue box
- use a variety of ways to close a dialogue box
- track their JAWS knowledge using the practice dialogue boxes in HJ Pad

Unit 3: Basic Word Processing

Overview

In this unit, students will learn to create, open, save and print Word files. They will practice entering text in a file, editing text, and change basic formatting of text.

Curriculum Organizers - Entering Text

Learning Outcomes

It is expected that students will be able to:

- enter text in an open file
- adjust JAWS typing echo for the current session using a hot key

Curriculum Organizers - Manipulating Word Processing Files

Learning Outcomes

It is expected that students will be able to:

- create a new file
- open an existing file
- save a file
- understand the difference between Save and Save As
- print a file

Curriculum Organizers - Editing

Learning Outcomes

It is expected that students will be able to:

- select blocks of text and confirm text selection
- insert, delete, and move text
- undo editing
- spellcheck text

Curriculum Organizers - Basic Formatting

Learning Outcomes

It is expected that students will be able to:

- change font, size, style of text
- check text attributes
- change text alignment
- create new lines and paragraphs
- change line spacing

Unit 4: Basic Screen Reading

Overview

In this unit, students will practice basic JAWS reading commands.

Curriculum Organizers - Basic Screen Reading

Learning Outcomes

It is expected that students will be able to:

- use control and arrow keys for reading by character, word, or line
- move to specific locations on a page (e.g., beginning, end, line, screen, page)
- use JAWS commands for reading characters, words, lines, sentences, paragraphs or all text
- silence speech

Unit 5: Basic JAWS Features and Parameters

Overview

In this unit students will learn to set some basic JAWS Options and Parameters such as voice and typing echo. Students will also learn about setting JAWS to start up automatically. They will learn how to ensure that the correct keyboard configuration has been chosen for their computer and how to double check JAWS commands before using them. Students will also learn how to track their progress in learning JAWS in the checklists provided in HJ Pad.

Curriculum Organizers - Launching JAWS

Learning Outcomes

It is expected that students will be able to:

- set JAWS for automatic start-up

Curriculum Organizers - Virtual Viewer

Learning Outcomes

It is expected that students will be able to:

- enable Virtual Viewer in the JAWS menu
- turn Virtual Viewer on and off in a particular environment
- use Virtual Viewer to receive contextual help about the current working environment
- use Virtual Viewer to review contextual help information line by line

- use Virtual Viewer to review all the formatting associated with a page in a Word Document

Curriculum Organizers - Tracking JAWS skills

Learning Outcomes

It is expected that students will be able to:

- use HJ Pad to keep track of JAWS skills

Curriculum Organizers - Basic JAWS parameters

Learning Outcomes

It is expected that students will be able to:

- change the JAWS Voice, speed, pitch
- change the amount of punctuation JAWS reads
- change the typing echo setting default

Curriculum Organizers - JAWS and the Keyboard

Learning Outcomes

It is expected that students will be able to:

- choose correct keyboard setting for computer
- use JAWS keyboard help to check commands before using them

Unit 6: Basic File and Folder Management

Overview

In this unit, students will learn to use Windows Explorer to manage files and folders.

Curriculum Organizers - Windows Explorer

Learning Outcomes

It is expected that students will be able to:

- launch Windows Explorer through Start Menu or hot key
- understand how files and folders are organized
- navigate tree view and list view in Windows Explorer
- select contiguous and non-contiguous files or folders in a list and verify that the correct items have been chosen

- create, move and delete files or folders
- rename files or folders

Module 6 (Level 1) Instructional Components

- direct instruction
- indirect instruction
- modeling
- practical creativity
- brainstorming
- videotape

Module 6 (Level 1) Assessment Components

Type of Assessment	Category	Details	Weighting (%)
Formative	Assignments		20%
	Self-evaluations		15%
	Demonstration of skills		40%
Summative	Final Assessment – integration of skills		25%
Total:			100%

Learning Resources

Print Resources

- Carreon, James, “Assistive Technology.” In *Itinerant Teaching: Tricks of the Trade for Teachers of Students with Visual Impairments*, by Jean E. Olmstead, 161-178. 2nd ed. New York: AFB Press, 2005.
- Holbrook, M. Cay, and Alan J. Koenig. *Foundations of Education*. 2nd ed. New York: AFB Press, 2000.
- Presley, Ike, and Frances Mary D’Andrea. *Assistive Technology for Students Who Are Blind or Visually Impaired: A Guide to Assessment*. New York: AFB Press, 2009.

Web Resources

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Complete teaching resource, however, it uses an older version of JAWS so features may have been changed.
- *JAWS for Windows Resources (2004-2008)*
http://www.setbc.org/setbc/vision/jaws_windows.html
A collection of JAWS resources done by SET-BC Consultants.
- *Training Downloads*
<http://www.freedomscientific.com/downloads/training/training-downloads.asp>
Free mp3 and DAISY training materials covering basic functions and the internet.

Module 6: Screen Readers with Braille Display: Level 2 (25 hours)

Prerequisite: Students must successfully complete Module 6, Level 1.

Facilities and Equipment: Must have access to a computer with screen reading software and a refreshable Braille display.

Module Synopsis

The student will become familiar with intermediate computer use with JAWS.

Module 6 (Level 2) Organizational Structure - Curriculum Organizers

Unit	Title	Time (hours)
1	Intermediate Windows Skills Using Windows Find Recycle Bin Send To Short Cut Keys	4
2	Intermediate Word Processing Tables Thesaurus Intermediate Formatting	5
3	Other Applications Encyclopedia Calculator Windows Media Player	3
4	Internet Safety Internet Explorer Email Surfing the Internet	10
5	Intermediate Screen Reading JAWS and PC Cursor Routing Restricting JAWS Cursor	1

6	Intermediate JAWS Keyboard Manager and Help	2
Total Hours:		25

Unit 1: Intermediate Windows Skills

Overview

In this unit students will develop intermediate Windows skills for launching programs by hot key, and finding, deleting, and rearranging files and folders.

Curriculum Organizers - Using Windows Find

Learning Outcomes

It is expected that students will be able to:

- launch Windows Find
- locate files and folders
- access Status Line to hear Find results

Curriculum Organizers - Recycle Bin

Learning Outcomes

It is expected that students will be able to:

- delete documents in a variety of ways
- view documents in the Recycle Bin
- recover deleted documents
- empty the Recycle Bin
- check the drive space currently allocated to the Recycle Bin using the JAWS cursor

Curriculum Organizers - Send To

Learning Outcomes

It is expected that students will be able to:

- use the Send To command in the Context Menu to send email and email attachments
- use the Send To command in the Context Menu to send copies of files to specific locations
- understand that the Send To menu can be customized

Curriculum Organizers - Short Cut Keys

Learning Outcomes

It is expected that students will be able to:

- create Short Cuts on the Desktop
- create Hot Keys for JAWS and other Desktop Short Cuts to quickly open applications, files, or folders

Unit 2: Intermediate Word Processing

Overview

In this unit, students will develop intermediate Word processing skills including using the Thesaurus, creating tables, and apply heading styles.

Curriculum Organizers - Tables

Learning Outcomes

It is expected that students will be able to:

- create Word tables
- navigate Word tables
- type text in Word tables
- add or delete columns and rows in Word tables
- access JAWS Contextual Help for special help with Word tables

Curriculum Organizers - Thesaurus

Learning Outcomes

It is expected that students will be able to:

- use the Word Thesaurus

Curriculum Organizers - Intermediate Formatting

Learning Outcomes

It is expected that students will be able to:

- apply styles such as headings in Word
- select special blocks of text, e.g. from beginning of document to cursor
- use JAWS Keyboard Manager to explore special formatting options in Word

- understand how applying styles differs from applying the parameters individually and why it is essential to use styles for documents to be exported to Duxbury

Unit 3: Other Applications

Overview

In this unit, students will access encyclopedia and Windows calculator using application specific keystrokes listed in JAWS Keyboard Manager. The student will optionally learn to create playlists and listen to music using Windows Media Player.

Curriculum Organizers - Encyclopedia

Learning Outcomes

It is expected that students will be able to:

- use the JAWS Keyboard Manager to discover and apply special keystrokes available for Encyclopedia applications
- use the Encyclopedia index
- read Encyclopedia articles
- copy and paste information from Encyclopedia articles to Word

Curriculum Organizers - Calculator

Learning Outcomes

It is expected that students will be able to:

- use the JAWS Keyboard Manager to discover and apply special keystrokes available for the Windows Calculator

Curriculum Organizers - Windows Media Player

Learning Outcomes

It is expected that students will be able to:

- operate typical controls for listing to music on the hard drive or on music CD's
- operate typical controls for listing to and navigating within audio books in .wav or .mp3 format

Unit 4: Internet

Overview

Students will develop their Internet skills in this unit to send and receive email, search online, navigate and download web pages and optionally chat online. They will develop an understanding of the different types of JAWS cursors.

Curriculum Organizers - Safety

Learning Outcomes

It is expected that students will be able to:

- understand safe use of Internet

Curriculum Organizers - Internet Explorer

Learning Outcomes

It is expected that students will be able to:

- navigate menus in Internet Explorer
- create and edit Favorites
- set home page

Curriculum Organizers - Email

Learning Outcomes

It is expected that students will be able to:

- read and send email
- maintain contacts list

Curriculum Organizers - Surfing the Internet

Learning Outcomes

It is expected that students will be able to:

- go to a particular web page
- navigate on a web page
- access the links list for a web page
- conduct an Internet search
- understand Forms Mode and turn it on and off
- understand the difference between JAWS Cursor, PC Cursor, and Virtual Cursor

- download a web page as a text or html file for later use
- download items from the Internet

Unit 5: Intermediate Screen Reading

Overview

Students will further develop their understanding of JAWS cursors in this unit. Students will also learn to use the Virtual Viewer to acquire additional information about the reading environment and to have better control over the information JAWS is providing.

Curriculum Organizers - JAWS and PC Cursor Routing

Learning Outcomes

It is expected that students will be able to:

- understand the difference between JAWS and PC Cursor
- turns JAWS and PC Cursor on and off
- route JAWS to PC and PC to JAWS Cursor

Curriculum Organizers - Restrict JAWS Cursor

Learning Outcomes

It is expected that students will be able to:

- understand why it is important to be able to restrict the JAWS cursor
- activate 4 restriction levels for the JAWS cursor (application window, current window, frame restriction, no restriction)

Unit 6: Intermediate JAWS

Overview

Students will learn to use JAWS Keyboard Manager and Help in this unit.

Curriculum Organizers - Keyboard Manager and Help

Learning Outcomes

It is expected that students will be able to:

- understand the function of Keyboard Manager and how to access the key commands for a specific application
- navigate the tree structure in Keyboard Manager
- navigate JAWS Help

Module 6 (Level 2) Instructional Components

- direct instruction
- indirect instruction
- modeling
- practical creativity
- brainstorming
- videotape

Module 6 (Level 2) Assessment Components

Type of Assessment	Category	Details	Weighting (%)
Formative	Assignments		20%
	Self-evaluations		15%
	Demonstration of skills		40%
Summative	Final Assessment – integration of skills		25%
Total:			100%

Learning Resources

Print Resources

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A collection of JAWS resources done by SET-BC Consultants.
- *Training Downloads*
<http://www.freedomscientific.com/downloads/training/training-downloads.asp>
Free mp3 and DAISY training materials covering basic functions and the internet.

Module 6: Screen Readers wWith Braille Display: Level 3 (35 hours)

Prerequisite: Completion of Module 6, Level 2.

Facilities and Equipment: The student must have access to a computer with JAWS and a refreshable Braille display.

Module Synopsis

The student will become familiar with advanced Windows and JAWS features.

Module 6 (Level 3) Organizational Structure - Curriculum Organizers

Unit	Title	Time (hours)
1	Advanced Windows Customizing the Start Menu Program and Peripherals Installation Control Panels Troubleshooting Using Device Manager Customizing Send To Command	10
2	Using Other Applications Database Software Presentation Software	10
3	Advanced Internet Internet Connection Web page Organization JAWS Find Old Versions	5
4	Advanced Screen Reader Features JAWS Managers Scripts Run JAWS From System Tray	8

5	Advanced File Management DOS	2
Total Hours:		35

Unit 1: Advanced Windows

Overview

In this unit, students will explore advanced Windows features such as adding items to the Start Menu, installing and configuring programs, understanding the items in the Control Panel, and troubleshooting peripheral devices using the device manager

Curriculum Organizers - Customizing the Start Menu

Learning Outcomes

It is expected that students will be able to:

- add items to the Start Menu
- remove items from the Start menu
- add or remove cascading submenus to items in the Start menu

Curriculum Organizers - Program and Peripherals Installation

Learning Outcomes

It is expected that students will be able to:

- use Add/Remove Programs Control Panel to add and remove applications
- use the JAWS cursor to read installation instructions
- understand and choose from different installation options
- navigate installation dialogue boxes should they appear
- monitor the installation progress

Curriculum Organizers - Control Panels

Learning Outcomes

It is expected that students will be able to:

- open, navigate, make and apply changes (as necessary) to the following Control Panel items: Accessibility Options, Date and Time, Display, Folder Options, Security Centre, Sounds and Audio Devices
- use Printer and Faxes Control Panel to install a printer

- use Scanner and Camera Control Panel to install a scanner

Curriculum Organizers - Troubleshooting Using Device Manager

Learning Outcomes

It is expected that students will be able to:

- locate and open the Device Manager within the System Control Panel
- view devices, expanding the list as necessary
- open the “Properties” dialogue box associated with each device
- check the status of a device using the JAWS cursor
- reinstall drivers if necessary

Curriculum Organizers - Customizing Send To Command

Learning Outcomes

It is expected that students will be able to:

- add destinations to the Send To command
- delete destinations from the Send To command

Unit 2: Using Other Applications

Overview

In this unit, students will learn keyboard commands specific to productivity applications such as database and presentation software. They will learn how to create and navigate in a database. Students will also learn to create a visually pleasing presentation, and deliver the presentation.

Curriculum Organizers - Database Software

Learning Outcomes

It is expected that students will be able to:

- understand a matrix and how to navigate to a particular location
- move between fields or cells by column or by row
- insert text into fields
- create and access titles for columns and rows
- sort fields alphabetically and numerically in ascending and descending order
- use JAWS Keyboard Manager to find key command specific to the software program
- use the program’s Help files

Curriculum Organizers - Presentation Software

Learning Outcomes

It is expected that students will be able to:

- use the program's template layouts and transitions to create visually pleasing slides
- add, delete, and rearrange slides
- insert graphics and sound files into presentations
- navigate between slide, outline, and notes view
- deliver a presentation
- use JAWS Keyboard Manager to find key command specific to the software program
- use the program's Help files

Unit 3: Advanced Internet

Overview

In this unit, students will learn how to set up an internet connection. They will also learn how web pages are organized, including headers and frames.

Curriculum Organizers - Internet Connection

Learning Outcomes

It is expected that students will be able to:

- connect a computer to the internet (Windows 98) using Network Neighbourhood
- use the Network Connection Wizard to connect a computer to the internet (Windows XP)

Curriculum Organizers - Web Page Organization

Learning Outcomes

It is expected that students will be able to:

- understand the purpose and importance of headers on a web page
- navigate a web page using the Headings List dialogue box
- understand the purpose and importance of frames on a web page
- navigate a web page using the Frames List dialogue box

Curriculum Organizers - JAWS Find

Learning Outcomes

- use JAWS Find to locate specific text on a web page

Curriculum Organizers - Old Versions

Learning Outcomes

It is expected that students will be able to:

- know where to find old versions of programs (e.g. Messenger) if new versions are incompatible with JAWS
- download and install old versions from the Internet

Unit 4: Advanced Screen Reader Features

Overview

In this unit, students will learn about the JAWS Configuration Managers which control the JAWS program. They will understand the concept of scripts, and learn how to install application specific scripts. Students will also learn to run JAWS from the System Tray.

Curriculum Organizers - JAWS Managers

Learning Outcomes

It is expected that students will be able to:

- understand the purpose of the Configuration Manager
- use Virtual Viewer and JAWS Help to explore the functions of all items in the “Set Options” menu
- make changes in the “Set Options” menu to customize the program
- save changes in the Configuration Manager
- understand the difference between the default Configuration file and application specific Configuration file

Curriculum Organizers - Scripts

Learning Outcomes

It is expected that students will be able to:

- understand the purpose of scripts
- download application specific scripts

- install application specific scripts into the Enu Folder
- use application specific key commands as per the scripts that were installed

Curriculum Organizers - Run JAWS From System Tray

Learning Outcomes

It is expected that students will be able to:

- understand the purpose of running JAWS from the System Tray
- set JAWS to run from System Tray
- navigate special JAWS menu structure

Unit 5: Advanced File Management

Overview

In this unit, students will learn basic DOS conventions including path statements and extensions. Students will learn how to use DOS to execute common word processing commands.

Curriculum Organizers - DOS (Disk Operating System)

Learning Outcomes

It is expected that students will be able to:

- understand the concept of a “path” using DOS
- change folder options so that Windows displays file extensions
- use a DOS path statement to save a file to a folder
- use a DOS path statement to open a folder
- use a DOS path statement to open a file
- identify common file extensions and understand their association with the program(s) they refer to. Common extensions will include: .exe, .txt, .doc, .xls, .ppt, .jpg, .kes .wav, and .mp3

Module 6 (Level 3) Instructional Components

- direct instruction
- indirect instruction
- modeling
- practical creativity
- brainstorming
- videotape

Module 6 (Level 3) Assessment Components

Type of Assessment	Category	Details	Weighting (%)
Formative	Assignments		20%
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Learning Resources

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