

Course Syllabus and Lesson Plan

RSRS 578 Computer and Media Production for Blind and Low Vision Persons I 3 (2-2-5)
Academic Year 2018, Semester 1

Course Title: Computer and Media Production for Blind and Low Vision Persons I

Course Code: RSRS 578

Duration: August – December 2018

Pre-Requisite: No

Course Homepage: http://www.rs.mahidol.ac.th/academic/master_degree-rehabilitation.html

Course Description:

Background, importance and objectives of using computer and media production in different formats for blind and low vision persons; guidelines on using computer with special software and peripherals; considerations for installation, equipment maintenance and trouble shooting; using the screen reader, braille display, screen magnification software, scanning system, portable computing devices and related technologies; using materials, tools and technologies to produce accessible media in audio, Braille, tactile graphics, enlarged and electronic formats as well as production of basic and adapted materials.

Course Objectives: At the end of this course, the students will be able to

1. Explain the overview concept and useage of computer technology and media production techniques for blind and low vision persons
2. Select and practice using computer technology and media production techniques for blind and low vision persons
3. Compare specifications of equipment and software for access technology and media production that is current according to international standard
4. Design and produce accessible materials for blind and low vision persons

Course Outline: Total 15 sessions, four hours each, (two hours lecture, two hours practice)

Session	Topic	Activities; Materials	Lecturers
1	Background and importance of using computer and media production	Course introduction and overview, lecture,	Dr. Wiraman Niyomphol

Session	Topic	Activities; Materials	Lecturers
17 Aug 2018 (8:00-12:00)	techniques in different formats for blind and low vision persons - Guidelines on using computer with special software and peripherals - Overview of technologies for computer access and media production - Consideration for computer access and material produced in local language	discussion; computer	
2 17 Aug 2018 (13:00-17:00)	Basic operation and installation of computer technologies - Screen reader and speech synthesizer	Lecture, demonstration, practice; JAWS screen reader, Tatip synthesizer	Dr. Wiraman Niyomphol
3 24 Aug 2018 (8:00-12:00)	Basic operation and installation of computer technologies - Refreshable Braille display with Screen reader	Lecture, demonstration, practice; JAWS and Focus 40 Braille display	Dr. Wiraman Niyomphol
4 24 Aug 2018 (13:00-17:00)	Basic operation and installation of computer technologies - Screen magnification software and related magnification tools	Lecture, demonstration, practice; Magnifier and Zoomtext screen magnification software	Dr. Wiraman Niyomphol
5 31 Aug 2018 (8:00-12:00)	Basic operation and installation of computer technologies - Scanning software and scanner	Lecture, demonstration, practice; Openbook and ABBYY software	Dr. Wiraman Niyomphol

Session	Topic	Activities; Materials	Lecturers
6 31 Aug 2018 (13:00-17:00)	Basic operation and installation of computer technologies - Portable computing devices through speech and Braille - Accessing smart phones	Lecture, demonstration, practice; Brailnote and Focus 14 portable braille device	Dr. Wiraman Niyomphol
7 7 Sep 2018 (8:00-12:00)	- Windows accessibility options for the visually impaired - Working on Office applications - Accessing the Internet, web accessibility	Lecture, demonstration, practice; Windows-based computer	Dr. Wiraman Niyomphol
-	Mid-term exam	-	Dr. Wiraman Niyomphol
8 7 Sep 2018 (13:00-17:00)	Presentation on selected computer technology	Presentation, discussion; computer	Dr. Wiraman Niyomphol
9 14 Sep 2018 (8:00-12:00)	Production of audio materials and basic use of related equipment - Traditional recording, digital recording, DAISY - Audio description	Lecture, demonstration, practice; MP3 and DAISY player, descriptive video	Mr. Tam Jatunam
10 14 Sep 2018 (13:00-17:00)	Production of Braille materials and basic use of related equipment - Braille software, Braille embosser	Lecture, demonstration, practice; DBT and TBTW software, Juliet Braille printer	Dr. Wiraman Niyomphol
11 21 Sep 2018 (8:00-12:00)	Production of tactile graphics and basic use of related equipment - Graphics software, tactile graphics devices	Lecture, demonstration, practice; tactile graphics machines	Dr. Issavara Sirirungruang

Session	Topic	Activities; Materials	Lecturers
12 21 Sep 2018 (13:00-17:00)	Production of enlarged materials and basic use of related equipment - Low tech devices, copying machine, computer solution	Lecture, demonstration, practice; computer, line papers, markers, enlargement tools	Mr. Apichat Thammultri
13 28 Sep 2018 (8:00-12:00)	Production of electronics media and basic use of related equipment - Accessible text, on-line resources	Lecture, demonstration, practice computer, online databases;	Dr. Wiraman Niyomphol
14 28 Sep 2018 (13:00-17:00)	Production of basic and adapted materials and related tools - Using available products in general market, creating simple solution - Three dimensional models	Lecture, demonstration, practice; touchable supplies, 3d models	Dr. Wiraman Niyomphol
15 5 Oct 2018 (8:00-12:00)	Presentation on materials for the visually impaired in selected format	Presentation, discussion, course summary	Dr. Wiraman Niyomphol
-	Final exam	-	Dr. Wiraman Niyomphol
	Total hours		

Methods: Lecture, Demonstration, Practice, Group study, Assignment and Discussion

Teaching Media

- Computer for demonstration
- Software and equipment in computer lab
- Material production equipment and supplies
- Sample materials at Ratchasuda and other sources
- Manuals and handouts

Evaluation of Student Achievement Grading system:

Course objectives	Evaluations	Marks	
1. Explain the overview concept and useage of computer technology and media production techniques for blind and low vision persons	Class participation	5	25
	Evaluate presentations and assignments	10	
	Midterm and final exams	10	
2. Select and practice using computer technology and media production techniques for blind and low vision persons	Class and lab participation	5	35
	Evaluate learning summary	10	
	Evaluate presentations and assignment	10	
	Midterm and final exams	10	
3. Compare specifications of equipment and software for access technology and media production that is current according to international standard	Class participation	5	25
	Evaluate analysis and discussion	5	
	Evaluate learning summary	5	
	Midterm and final exams	10	
4. Design and produce accessible materials for blind and low vision persons	Class and lab participation	5	15
	Evaluate presentations and assignment	10	
	Total	100	100

Grade range:

A = 90 – 100

B = 85 – 89

B+ = 80 – 84

C = 75 – 79

C+ = 70 – 74

D = 65 – 69

D+ = 60 – 64

F < Below 60

Course Evaluation: Student evaluation about contents, teaching processes, examinations and instructor performance; Instructor self-assessment

Required Textbook

"Getting Started: Helping Parents and Teachers to understand the Basics of Assistive Technology for Persons with Visual Impairment" by Karolina Karan

"Teaching Word with JAWS for Windows" by De Witt & Associates

Other References

Manuals of different products for blind and low vision persons

Web resources related to computer technologies and media production for blind and low vision persons

Course Coordinator and lecturers:

Lect. Wiraman Niyomphol, Ph.D.

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Lecturers from Blind and Low Vision Rehabilitation Major, Ratchasuda College

Staff from Blind/Low Vision Unit and Assistive Technology Unit, Ratchasuda College