

## Course Syllabus and Lesson Plan

RSRS555 Braille and Its Application 3 (2-2-5)

Academic Year 2018

**Course Title:** Braille and Its Application

**Course Code:** RSRS555

**Duration:** First year, first semester

**Pre-Requisite:** No

**Course Homepage:** [http://www.rs.mahidol.ac.th/academic/master\\_degree-rehabilitation.html](http://www.rs.mahidol.ac.th/academic/master_degree-rehabilitation.html)

### Course Description:

Principles and concepts of braille; pre- braille skills; reading, writing and typing braille using slate/stylus and braille writer; English braille grades 1 and 2; Thai braille grades 1 and 2; mathematics braille codes; using software to type braille directly; translation software converting print to braille; using braille embosser and other related braille technologies; producing quality braille media; braille research

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

1. Read and write Thai and English braille without contraction fluently.
2. Use braille hardware and software to produce good quality braille document.
3. Have knowledge on foundation of braille and able to compare, distinguish and integrate between Thai, English and other braille codes such as maths, science, computer and music.
4. Have foundation knowledge and practice using braille software and other braille technology.
5. Analyse new knowledge and research on braille. Apply braille in education, daily living and the development

**Of braille system and braille in different languages.**

## Course schedule

Week	Topic	Teaching Activities and Media	Lecturer
1	<ul style="list-style-type: none"> <li>- Course Introduction</li> <li>- Principles, history of Braille, Braille development concept</li> <li>- Louis Braille the Braille inventor and other important persons</li> <li>- Pre-braille skill</li> </ul>	<ul style="list-style-type: none"> <li>- Introduction to lecturer and students</li> <li>- Introduction to the course / lecture in relevant topics</li> <li>- VDO, handout, samples of pre-braille, Braille standard handbook</li> </ul>	Dr.Issavara Sirirungruang
2	<ul style="list-style-type: none"> <li>- Braille and literacy and daily living of persons with visual impairment</li> <li>- Braille research</li> </ul>	<ul style="list-style-type: none"> <li>- Lecture and discussion</li> <li>-Braille research papers, samples of different media with Braille</li> </ul>	Dr. Issavara Sirirungruang
3	<ul style="list-style-type: none"> <li>- Braille structure</li> <li>- Braille reading and writing technique</li> <li>- Slate and Stylus usage</li> <li>- Brailleur usage</li> <li>-Typing Braille with computer software</li> </ul>	<ul style="list-style-type: none"> <li>- Lecture, demonstration and practice using different Braille writing tools</li> <li>- slate and stylus, Brailleur, Braille software and computer, handouts and Braille codes</li> </ul>	Dr. Issavara Sirirungruang and Dr. Wiraman Niyomphol
4	Thai Braille grade 1 (without contraction)	<ul style="list-style-type: none"> <li>- Lecture and practice</li> </ul> Brailleur, handouts and Braille standard handbook, Braille exercises	Dr. Issavara Sirirungruang
5	<ul style="list-style-type: none"> <li>- Thai Braille grade 1 (cont.)</li> <li>- The difference between Thai Braille grade 1 and grade 2 (with contractions)</li> </ul>	<ul style="list-style-type: none"> <li>- Lecture and practice</li> </ul> Brailleur, handouts and Braille standard handbook, Braille exercises	Dr. Issavara Sirirungruang

Week	Topic	Teaching Activities and Media	Lecturer
6	- Setting layout, header and Braille and print page numbers - Practice reading and writing Thai Braille - Assign Braille book production project	-Lecture and practice -Braille, handouts and Braille standard handbook, samples of different types of Braille books	Dr. Issavara Sirirungruang
7	English Braille grade 1 (without contraction)	- Lecture and practice Braille, handouts and Braille standard handbook, Braille exercises	Dr. Issavara sirirungruang
8	Mid-term examination		
9	English Braille grade 2 (with contractions)	-Lecture and practice Braille, handouts and Braille standard handbook, Braille exercises	Dr. Issavara Sirirungruang
10	Nemeth Braille in mathematics	- Lecture and practice Braille, handouts and Braille standard handbook, Braille exercises	Dr. Wiraman Niyomphol
11	- Science and chemistry Braille codes - Computer Braille	-Lecture and practice Braille, handouts and Braille standard handbook, Braille exercises	Dr. Wiraman Niyomphol
12	-Music Braille notations	-Lecture and practice Braille, handouts and Braille standard handbook, Braille exercises	Dr. Wiraman Niyomphol
13	Braille in different foreign languages	- Lecture – Samples of Braille in different languages -Students present their research of Braille codes	Dr. Issavara Sirirungruang and Dr. Wiraman Niyomphol
14	<b>Braille embossers</b>	- Lecture, demonstration and practice - Different models of Braille embossers	Dr. Wiraman Niyomphol
15	Braille production system	- Lecture, demonstration and practice	Dr. Wiraman

Week	Topic	Teaching Activities and Media	Lecturer
	with computer	- Different Braille softwares	Niyomphol
16	Braille technology such as Braille display, Braille note taker, Braille applications in smart phone/tablet	- Lecture, demonstration and practice - Braille display, Braille note taker, Braille applications in smart phone/tablet	Dr. Wiraman Niyomphol and Dr. Issavara Sirirungruang
17	Final examination		

**Teaching Methods:** Lecture, Group study, Assignment and Discussion

**Evaluation of Student Achievement Grading system:**

Course Objectives	Evaluations	Marks	
1. Read and write Thai and English braille without contraction fluently.	In-class exercises	3	16
	Project: Braille books production	10	
	Assignment: practice exercises	3	
2. Use braille hardware and software to produce good quality braille document.	In-class exercises	3	16
	Project: Braille books production	10	
	Assignment: practice exercises	3	
3. Have knowledge on foundation of braille and able to compare, distinguish and integrate between Thai, English and other braille codes such as maths, science, computer and music.	Discussion in class	10	30
	Presentation	10	
	Mid-term	10	

	examination		
4. Have foundation knowledge and practice using braille software and other braille technology.	In-class exercises	4	8
	Assignment: practice exercises	4	
5. Analyse new knowledge and research on braille. Apply braille in education, daily living and the development of braille system and braille in different languages.	Academic Article	15	30
	Report	5	
	Final examination	10	
<b>Total</b>			100

A = 90-100 Marks

B+ = 80-89 Marks

B = 70-79 Marks

C+ = 60-69 Marks

C = 50-59 Marks

D+ = 40-49 Marks

D = Marks

F &lt; 40 Marks

**Course Evaluation:** Questionnaire about contents, teaching processes, examinations and instructor performance.

### Required Textbook

- กองทุนส่งเสริมและพัฒนาการใช้อักษรเบรลล์แห่งชาติ (255๙) คู่มือมาตรฐานอักษรเบรลล์ไทย กรุงเทพฯ:สมาคมคนตาบอดแห่งประเทศไทย.
- American Association of Workers for the Blind, Association for Education of the Visually Handicapped and the National Braille Association, (1988) The Nemeth Braille Code for Mathematics and Science Notation 1972 Revision. KY: American Printing House for the Blind.
- Braille Authority of North America, (2014) UEB Reader. Retrieved 13 July 2015 from <http://www.brailleauthority.org/ueb.html#research>.

### Other References

- Clunies-Ross, Louise. (2005) 'Windows of perceptions: a review of the literature concerning uncontracted and contracted literary Braille'. *British Journal of Visual Impairment*, Vol. 23, No. 2, pp. 67-74.

- Lorimer, P. (2002) 'Hand techniques in reading braille: synthesis of spatial and verbal elements of reading'. *British Journal of Visual Impairment*, Vol. 20, pp. 76-79.

**Course Coordinator**

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