

EDVI 706:1M ADVANCED BRAILLE

I. INSTRUCTOR INFORMATION

Instructor: Tina Herzberg, Ph.D.

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II. COURSE INFORMATION

Semester: Spring 2015

Location: Weekly online sessions using Skype and three onsite class meetings

Credit: 3 semester hours

Prerequisite: EDVI 705 Literary Braille Code

III. REQUIRED TEXTS AND READING MATERIALS

Braille Authority of North America. (2011). *Braille formats: Principles of print-to-braille transcription*. Retrieved from http://www.brailleauthority.org/formats/2011manual-web/index.html

Braille Authority of North America. (2010). *Guidelines and standards for tactile graphics*. Retrieved from http://www.brailleauthority.org/tg/web-manual/index.html

Braille Authority of North America. (2014). *Provisional guidance for transcription using the Nemeth Code within UEB contexts*. Retrieved from http://brailleauthority.org/ueb/nemeth-provisional/guidance.pdf

Craig, R.H. (1997). Learning the Nemeth braille code: A manual for teachers and students. Louisville, KY: American Printing House for the Blind.

Nemeth, A. (1972). The Nemeth braille code for mathematics and science notation. Louisville, KY: American Printing House for the Blind.

Risjord, C. (2014). *The ABCs of UEB: A guide for the transition from English Braille American Edition (EBAE) to the rules of UEB*. Retrieved from http://brailleauthority.org/ueb/abcs/abcs-ueb.pdf.

IV. USC UPSTATE SCHOOL OF EDUCATION GRADUATE MISSION STATEMENT

Educators prepared in the graduate school at USC Upstate are well-versed in the liberal arts and applicable content areas, the latest developments in curriculum and instruction, theory and practice, and the research-based, socio-cultural, and philosophical foundations of education. They understand and respect cultural diversity, welcome diversity of opinion and belief, and place the welfare of their students first. As *reflective professionals*, they are leaders among their colleagues and are committed to a service ideal built upon the highest standards and ethical principles.

V. COURSE DESCRIPTION

<u>Catalog Description</u>: Transcription of mathematics, science notation, music, and foreign language into braille on a Perkins Brailler and a computerized Perkins Brailler emulator. This course also includes instruction in creating tactile graphics, developing perceptual skills, using a slate and stylus, and teaching the Nemeth Braille Code to students who are visually impaired. Prerequisite: EDVI 705.

VI. RATIONALE

One purpose of public education is to prepare each student to function effectively in society as a competent, productive and responsible citizen. Necessary components of public education are reading, writing, math and science. For some students with visual impairments, braille serves as a system of written communication. Teachers of students with visual impairments must become proficient in the mathematical and scientific braille code in order to be able to effectively develop math and science skills in students who use braille and transcribe instructional materials into braille for their students. Additionally, teachers of students with visual impairments must also become proficient in creating tactile graphics, proofreading, and formatting in order to effectively transcribe materials into braille for their students.

VII. COURSE GOALS AND OBJECTIVES

Course Goals and Objectives in alignment with

- A. USC Upstate Core Values/Goals:
 - 1. Value reflective teaching practice
 - 2. Value learner-centered pedagogy
 - 3. Value performance-based assessment
 - 4. Are committed to and affirm diversity
 - 5. Are committed to professional responsibility

B. CEC Performance-Based Standards:

- 1. Learner Development and Individual Learning Differences
- 2. Learning Environments
- 3. Curricular Content Knowledge
- 4. Assessment
- 5. Instructional Planning and Strategies
- 6. Professional Learning and Practice
- 7. Collaboration

General Goals for the Course: Upon the successful completion of this course, students will:

- A. Become proficient in the transcription of UEB and Nemeth braille by use of a Perkins braillewriter, slate and stylus, and computer technology (CV 2, 4; CEC 3).
- B. Become proficient in the reading and transcription of English Braille: American Edition (CV 2, 4; CEC 3).
- C. Become proficient in proofreading, formatting, and interlining materials in the literary and Nemeth braille codes. (CV 2, 4; CEC 3).
- D. Become proficient in the reading of Nemeth Braille through a visual or tactile modality (CV 2, 4; CEC 3).
- E. Know the rules involving mathematical and scientific braille transcription (CV 2, 4; CEC 3).
- F. Be proficient in preparing tactile graphics (CV 2, 4; CEC 3).
- G. Be able to prepare adapted or modified mathematical and scientific materials in braille. (CV 2, 4; CEC 3).
- H. Be able to prepare materials for young students who are learning to read using braille (CV 2, 4; CEC 3).

Course Objectives: Upon successful completion of this course, students will:

- A. Become proficient in the transcription of spatial arithmetic problems including addition, subtraction, multiplication and division (CV 2, 4; CEC 3).
- B. Become proficient in the transcription of fractions and mixed numbers (CV 2, 4; CEC 3).
- C. Know all punctuation and omission signs CV 2, 4; CEC 3).
- D. Know all alphabet indicators (CV 2, 4; CEC 3).
- E. Know all signs and symbols of grouping (CV 2, 4; CEC 3).
- F. Know all signs and symbols of comparison (CV 2, 4; CEC 3).
- G. Know how to transcribe superscripts and subscripts (CV 2, 4; CEC 3).
- H. Know how to transcribe radicals and modifiers (CV 2, 4; CEC 3).
- I. Be familiar with formatting and proofreading considerations in braille (CV 2, 4; CEC 3).
- J. Know how to transcribe using a slate and stylus (CV 2, 4; CEC 3).
- K. Be able to prepare materials for K-12 students using both the literary and Nemeth codes (CV 2, 4; CEC 3).
- L. Be able to appropriately prepare tactile graphics (CV 2, 4; CEC 3).
- M. Be able to transcribe materials for students taking foreign language courses (CV 2, 4; CEC 3).
- N. Be able to adapt and transcribe materials for young students who read braille (CV 2, 4; CEC 3).
- O. Be able to read and transcribe materials using English Braille, American Edition (CV 2, 4; CEC 3).

VIII. TECHNICAL REQUIREMENTS

<u>Technical Information:</u> Students are required to access Blackboard and check the email account listed in Blackboard regularly. Blackboard is class management software. It allows for access between the instructor and students to send announcements, funnel email, share files and assignments, as well as conduct testing. An introduction to Blackboard may be found at http://breeze.deis.sc.edu/p77417233/ and in Blackboard under Orientation. A partial list of system requirements is listed below. The complete list may be found in the blackboard tutorials. Blackboard is managed at the USC Columbia campus and assistance can be obtained by calling (803)777-1800.

Please install the *latest release of Adobe Acrobat Reader* on your system. I may post assignments in PDF format and this software will allow students to read these documents. This software is available for download for free at: http://www.adobe.com/products/acrobat/readstep.html

IX. INSTRUCTOR'S ROLE AND AVAILABILITY

My role is to provide an environment in which students can learn and succeed. Although the learning and success is up to each student, I will provide a variety of learning activities and assessments. I will be happy to discuss any problems students have with the course content, but bear in mind that technical issues with internet connections or Blackboard problems are outside my domain. Accessing a Blackboard tutorial should provide some answers and links that may help resolve technical issues.

You are welcome to contact me via e-mail, chat, telephone, or in person. You can also use email to contact me to schedule a chat or phone conversation. You may email me at therzberg@uscupstate.edu. If you email me, I generally will respond within 24 hours. *Please note I do not routinely check my email after 5:00 pm and on weekends, so if students write in the evening, I will probably not review the message until the following day.*

X. STUDENT EXPECTATIONS

Candidates will be expected to consistently demonstrate professionalism relative to behavior and quality of work (i.e. attendance, cooperation, use of written and oral language, assignment completion). Each candidate is expected to keep up with the schedule of activities. *This includes reading each assigned chapter and document BEFORE the material is reviewed in class*.

XI. COURSE POLICIES

<u>Plagiarism</u>: Plagiarism will not be tolerated and will be handled according to USC Upstate's policy. Blackboard checks each paper for plagiarism. The handbook defines plagiarism as, "Plagiarism, or literary theft, in any writing assignment: using others' words or ideas without consistent, correctly formatted acknowledgement. This includes sources the student knows personally-friends, other students, relatives, etc., as well as all text, Internet, and other sources."

<u>USC Upstate's Code of Academic Integrity:</u> Under the Code of Academic Integrity, students are on their honor not to cheat, lie or steal, and if they witness another student doing so, it is their responsibility to report the individual and the circumstances to the instructor or the dean of students.

<u>Assignments</u>: All assignments including the class midterm examination are to be completed independently. *Late assignments will not be accepted without prior permission.*

Grade Failure Due to Violation of Honor Code: Students who admit responsibility or who are found responsible through the Student Code of Conduct will receive the appropriate grade determined by the professor, which may include an X to signify academic dishonesty. Grades with an X are not subject to grade forgiveness.

Incomplete Grade Policy: Students who wish to be assigned an incomplete must submit a written request, which includes reasons for receiving the incomplete grade, to the instructor by Tuesday, April 21, 2015. This request will be granted only in compliance with policies of USC Upstate and Department of Education. If a student does not make this request, misses written request deadline or is denied his/her request, the student will be assigned a grade that corresponds to the number of points earned.

Attendance: Attendance will be taken each class and is an important component of class. Please make every effort to attend ALL class sessions. A letter grade will be deducted from your overall point total if you miss three or more classes. Attendance will be taken at the beginning of every class. If you are late, it is your responsibility to inform the instructor of your presence so that you are not marked absent.

Online chat sessions are an essential part of this course; they count as class sessions. The assigned reading from the texts and class documents will form the basis of each discussion. You will be expected to be on time and prepared for class. The sessions will provide you with opportunities to review the content, seek feedback from fellow students as well as your instructor, and ask for help when you need it.

<u>Disabilities Accommodations</u>: USC Upstate supports the ongoing development of an accessible university that embraces diversity through educational programming, services, resources, and facilities that are usable by all members of the campus community. In keeping with University policy, any student with a disability who requests academic accommodations should contact Disability Services at 503-5199 to arrange an appointment with a Disability Services staff member. Students are encouraged to seek an appointment as early in the semester as possible, as accommodations are not provided retroactively.

XII. COURSE REQUIREMENTS

A. Braille Transcription Exercises

A new lesson will be reviewed each class session. Following each lesson, the student will transcribe into braille an assignment comprised of sentences, math problems and/or paragraphs/worksheets

involving the reviewed material. Some assignments will be found in the texts, and others will be posted in Blackboard.

The completed assignment MUST be sent electronically by midnight the date it is due in order to receive credit. Each assignment is worth a maximum of 20 points. Points earned for each transcribed assignment will depend on the number of errors and erasures made. No points will be given an exercise if it was not emailed or mailed by the due date regardless of the quality of the work.

B. Braille Reading, Proofreading Exercises, and Assignments about Assigned Reading

A new lesson will be reviewed each class session. The ten reading and proofreading assignments may come from the text, or the assignment may be posted on Blackboard. On many of the assignments, students will complete the exercise by writing in pen or pencil the print letters or words that correspond to the braille writing. On other assignments, the student will address the questions/prompts, locate errors in braille, and/or summarize the reading.

Each assignment is worth a maximum of 10 points. Points earned will depend on the number of errors made as described under the rubrics section of this syllabus. No points will be given an exercise if it was not emailed or mailed by the due date regardless of the quality of the work.

C. Midterm Exam

The midterm exam is worth a total of 200 points. It will encompass all reviewed information from the textbooks and class documents. It will include two major sections: one section will be the transcription of print materials into braille and the other section will involve the reading and inkprinting of braille into print. The exam may also include answering questions regarding the rules of the Nemeth braille code and proofreading exercises.

D. Final Exam

The final exam is worth 200 points and is inclusive – it will cover all chapters of the texts reviewed during the semester. It will include two major sections: one section will be the transcription of print materials into braille and the other section will involve the reading and inkprinting of braille into print. The exam may also include answering questions regarding the rules of the Nemeth braille code, proofreading exercises, creating a tactile graphic, and/or computing arithmetic problems on the abacus.

E. Related Field Experiences (Practicum arrangements will be made for each student.)

There will be 4 related field experiences throughout this course. For the first experience, candidates must observe a certified teacher of students with visually impairments conduct a lesson on using an abacus or teaching mathematical skills to a braille reader. Please seek approval of your plan before observing. The observation should last a minimum of 1 hour. This can be broken into shorter segments. Following the observation, candidates should interview the teacher of students with visual impairments. Candidates will then write a 1-2 page report which summarizes what they observed and reflects about what they learned from the experience. Documentation of date and time of observation(s) and interview must be included in the written report.

For the second field experience, candidates must observe a student who is a braille reader in a *general* education secondary (grades 7-12) math or science classroom during an academic lesson. During the observation, candidates should note the level of success in the activity/assignment, curriculum adaptations, areas of concern, and use of adaptive equipment or materials. Afterwards, candidates should write a 1-2 page reflection about what they observed, recommendations for additional curriculum adaptations if needed, and what they learned from the experience.

For the third and fourth field experience, candidates must develop and implement two lesson plans for a student who is learning the Nemeth code. The lessons should last a minimum of 30 to 45 minutes. Candidates will submit their lesson plans and complete a reflection using the form provided in Blackboard.

At a minimum, your lesson plan must include the following information:

- Title and overview of lesson
- How lesson relates to your instructional goal and targeted behaviors
- How lesson stems from your pre-assessment information; characteristics, abilities and needs of student(s); and contextual factors
- Time, materials, and technology needed for lesson
- Objectives for lesson
- Steps/activities within lesson
- · Extensions or modifications if needed
- Assessment of student learning during and/or following lesson

F. <u>Adaptation of a Material Requiring the Use of Tables, Tactile Graphics, Braille Music Code or</u> Nemeth Code (third grade material or above)

It is important that you learn how to adapt materials for students who are braille readers. Choose an instructional material that needs to be altered and that is currently not available in alternate formats. You may also create an instructional material if one does not exist to meet your needs. You will present your adaptation of the product/material during the last live class and briefly (3-5 minutes) describe how you adapted your material to the class.

G. Oral Reading of Braille Passage

According to national guidelines, a beginning teacher of braille should be able to read aloud a passage written in contracted braille at a rate of at least 20 words correct per minute. In order to determine that candidates meet the guidelines, candidates will be given 30 seconds to overview a short story and then asked to individually read aloud the passage written in contracted braille during the last month of class. The oral reading will be worth a total of 100 points. Each candidate is responsible for scheduling his/her individual appointment during the last week of class in order to complete the oral reading.

XIII. COURSE ASSESSMENT AND EVALUATION

The grade earned for the course will be determined by the number of points accumulated from the weekly assignments and from the midterm and final exam.

Grades will be determined as follows:

Accuracy of weekly written assignments (10 @ 20 points) = 200 pointsAccuracy of reading assignments (10 @ 10 points) = 100 pointsRelated field experience (4 @ 25) = 100 pointsAdaptation of material = 100 pointsOral reading of braille passage = 100 points=200 points Midterm exam = 200 pointsFinal exam = 1.000 points Total

Course grade will be assigned as outlined: (Please note that grades will not be rounded.)

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A = (93.00 - above) = 930 and above points
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B + = (90.00 - 92.99) = 900.00 - 929.99 points

B = (83.00 - 89.99) = 830.00 - 899.99 points

C + = (80.00 - 82.99) = 800.00 - 829.99 points

C = (73.00 - 79.99) = 730.00 - 799.99 points

D = (65.00 - 72.99) = 650.00 - 729.99 points

F = (64.99 - below) = 649.99 and below points

Rubrics for each course activity:

- 1. Braille writing and transcribing exercises: Each transcription exercise is worth 20 points for a total of 200 points (20 pts x 10 = 200 points) for the semester. *Two* points will be deducted for each error.
- 2. Braille reading and proofreading exercises: Each exercise is worth 10 points for a total of 100 points for the semester (10 pts \times 10 = 100 points). *Two* points will be deducted for each error.
- 3. Field experiences will be graded using the following rubric:

	Exemplary	More than Satisfactory	Satisfactory	Unsatisfactory	Score
Field experience Reflection	All requirements of the field experience were met and/or exceeded.	10-14 Most requirements of the field experience were met.	6-9 Some requirements of the field experience were NOT met.	5 or less Most requirements of the field experience were NOT met.	
Exploring and analyzing Content	Student demonstrates consistent thoughtful, insightful reflection. 4 Identification of key concepts and critical comments/reflections on most key concepts.	Thoughtful reflection is evident 3 Identification of key concepts and/or comments/reflections on many key concepts.	Uses only simple, obvious statements to demonstrate reflection. 2 Limited reference to key concepts and/or reference to some key concepts.	Reflection is limited to flimsy generalizations. 0 Insufficient amount of references to key concepts.	
Standard English	NA	The paper is free of or contains few grammatical, mechanical and/or spelling errors that do not distract the reader.	The paper contains few grammatical, mechanical and/or spelling errors that may or may not distract the reader.	O There are numerous grammatical, mechanical and/or spelling errors that make the paper difficult to read.	

4. <u>Adaptation of material:</u> Your project will be assigned a difficulty rating of 1, 2, or 3. Projects that require the use of less than 50 different contractions and Nemeth symbols and/or contain 3 or more erasures will automatically be assigned a rating of 1. Maximum score/grade for projects assigned a rating of 1 is 60. Projects that require the use of 50-75 different contractions and Nemeth symbols will be assigned a rating of 2. Maximum score/grade for projects assigned a rating of 2 is 80. Projects that require the use of more than 75 contractions and/or Nemeth symbols will be assigned a difficulty level of 3. Maximum score/grade for projects assigned a rating of 3 is 100.

Once a difficulty level has been assigned, each error and detectable erasure will result in the loss of 4 points from the determined maximum score.

- 5. Midterm exam and final exam: Five points will be deducted for each error.
- 6. Oral reading: Candidates that read at a rate of at least 20 words correct per minute will receive 100 points. Candidates that read at a rate of 18-19 words correct per minute will receive 85 points. Candidates that read at a rate of 16-17 words correct per minute will receive 70 points. Candidates that read at a rate of 13-15 words correct per minute will receive 55 points. Candidates that read at a rate of 10-12 words correct per minute will receive 40 points. Candidates that read a rate of less than 10 words correct per minute will receive no points.

Notes:

- This is a tentative syllabus and the instructor reserves the right to make changes to the course as deemed necessary.
- Any exceptions to policies outlined in this syllabus will be made on an individual basis at the instructor's discretion.

XIV. TOPICS AND ASSIGNMENT OUTLINE

January	1/13	Live class	
o unitionally	1, 10	Review of syllabus and course activities	
		Beginning Nemeth (hand-out and Craig, p 1-5)	
		• Review examples on p. 7-9, 15, 48-50 in APH green book	
		• Creating number lines (hand-out from BANA Guidelines and Standards for Tactile Graphics)	
		 Basics of formatting (centered headings and formatting problems in Nemeth) Oral reading practice 	
		Assignments: Written Exercise #1 Reading Exercise #1	
	1/20	Online chat	
		Becoming proficient proofreaders	
		Common errors in transcribing materials using UEB	
		Transcribing using the Nemeth Code within UEB Contexts (Read BANA)	
		hand-out entitled Provisional Guidance for Transcription Using the	
		Nemeth Code within UEB Contexts)	
		• Punctuation and Capitalization in English Braille: American Edition (Read pages 1-10 in <i>The ABCs of UEB</i>)	
		Assignments: Written Exercise #2	
		Reading Exercise #2	
	1/27	Live class	
		• Spatial arrangements in the Nemeth code (Craig, p. 6-15)	
		• Review p. 162-174 in APH book	
		 Worksheets and Materials for Beginning Readers (Promising Practices 	
		document from BANA and APH)	
		Begin basic braille formats (hand-out)	
		Oral reading practice	
		Assignment: Written Exercise #3 (not due until 2-10)	
		Reading Exercise #3 (not due until 2-10)	

	2/3	Online chat		
	2/3	Contractions, typeforms, and single letters in English Braille: American		
		Edition (Read pages 15-40 in <i>The ABCs of UEB</i>)		
		• Continue basic braille formats (hand-out)		
		More on adapting worksheets and materials for beginning readers		
Г-1	2/10	Online chat		
February	2/10	More basic braille formats, including math and literary materials		
		• Read Sections 4, 10, and 11 in the online Braille Formats: Principles of Print-		
		to-Braille Transcription, 2011 (available on the BANA website)		
		Numbers, symbols, and electronic addresses in English Braille: American		
		Edition and UEB (Read pages 41-50 in <i>The ABCs of UEB</i>)		
		Assignments: Written Exercise #4		
		Reading Exercise #4		
		Treating Energies in 1		
	2/17	Online chat		
		• Nemeth fractions (Craig, p. 16-25)		
		• Review examples on p. 70-76 in APH book		
		Proofreading		
		Assignments: Written Exercise #5		
		Reading Exercise #5		
	2/24	Online chat		
		• Punctuation indicators, problems w/ omissions, and formatting in Nemeth		
		(Craig, p. 26-34)		
		• Review p. 41-46 & 54-61 in APH book		
		Assignments: Field Experience #1 and #2 Due		
March	3/3	Midterm posted (Due on or before March 17)		
	3/10	University spring break (no class)		
	3/10	om versity spring creak (no class)		
	3/17	Online chat		
		 Alphabets and alphabetic indicators (Craig, p. 36-39) 		
		 Alphabets and alphabetic indicators on p. 21-41 in APH book 		
		• Proofreading		
		Assignments: Written Exercise #6		
		Reading Exercise #6		
	3/24	Online chat		
		• Signs and symbols of grouping (Craig, p. 41-49)		
		• Geometry proofs on p. 39-40 and 204-205 in APH book		
		Also review p. 122-125 about grouping in APH book		
		Assignments: Written Exercise #7		
		Reading Exercise #7		

	3/31	Online chat		
	 Guidelines and Standards for Tactile Graphics (available on the website) 			
		 Subscripts, superscripts, modifiers and radicals (Craig, p. 71-78) Review rule IV & XIII in APH book p. 21-36 & 82-88 		
				Reading Exercise #8
April	4/7	Optional extra credit trip to Braille Production Center/Live class		
		 Creating tactile graphics (APH's Guide to Creating Tactile Graphics) 		
		Introduction to slate and stylus		
		Oral reading practice		
		Assignments: Written Exercise #9 Reading Exercise #9		
	4/14	Online chat		
		 Introduction to transcribing materials in foreign languages 		
		• Accented letters and foreign words (Read pages 51-52 in The ABCs of UEB)		
		Abbreviations and use of contractions in Nemeth (Craig, p. 50-59)		
		Assignments: Written Exercise #10		
		Reading Exercise #10		
		Field Experiences 3 & 4 Due		
	4/21	Online chat		
		• Signs of comparison and shapes (Craig, p. 60-70)		
		• Review p. 105-106, 110-118, 135, and 144 in APH book		
		• Review for Final Exam (including hand-out and Craig, p. 82-86)		
		Comprehensive Final Exam Due on or before Sunday, May 3 (at 11:59 p.m.) Posted on Blackboard on Tuesday, 4/28		