



College of Education and Human Development

Division of Special Education and disAbility Research

Spring 2015

EDSE 616 DL1: Braille Reading and Writing

CRN: 18061, 3 - Credits

JMU – EXED 632 Braille Reading and Writing

RU – EDSP 656 Braille Reading and Writing

NSU – SPE 616V Braille Reading and Writing

ODU – SPED 639 Braille Reading and Writing

Instructor: Dr. Derrick Smith	Meeting Dates: 1/20/2015 - 5/13/2015
Phone: 256-322-7555	Meeting Day(s): Mondays
E-Mail: dsmith58@gmu.edu	Meeting Time(s): 4:30 pm-7:10 pm
Office Hours: Call to set appointment.	Meeting Location: Internet NET NET

Note: This syllabus may change according to class needs. Students will be advised of any changes immediately through George Mason e-mail and/or through Blackboard.

Course Description

Provides basic instruction on transcription of advanced Braille codes, including music, foreign language, chemistry, computer Braille, and Nemeth code (Braille math code). Introduces techniques for teaching skills in each code. Explores technology tools used to create Braille and tactile materials in addition to other assistive technologies used for instruction in math and science. Prerequisite(s): EDSE 512; EDSE 511 (may be taken concurrently). Notes: Delivered online. Hours of Lecture or Seminar per week: 3 Hours of Lab or Studio per week: 0

Prerequisite(s): EDSE 511; EDSE 512 (may be taken concurrently)

Co-requisite(s): None

Advising Contact Information

Please make sure that you are being advised on a regular basis as to your status and progress through your program. Mason M.Ed. and Certificate students should contact the Special Education Advising Office at (703) 993-3670 for assistance. All other students should refer to their faculty advisor.

Nature of Course Delivery

Learning activities include the following:

1. Online class lecture and discussion: Students are expected to attend all online class meetings to engage in constructive direct instruction on the topics and class discussions. Online discussions may also be used to continue or expand conversations.
2. Individual application activities: Students will complete a set of individual learning activities including braille transcription assignments.
3. Small group activities and assignments: Students may be asked to participate in group activities during class meetings and/or through online collaborations.
4. Video and other media supports: Instruction may utilize video as an accompanying instructional support during the course.
5. Electronic supplements and activities via Blackboard: While this course is scheduled to meet weekly online, students will be required to complete most assignments online through Blackboard.

Learner Outcomes

Upon completion of this course, students will be able to:

- Transcribe and read mathematical materials for school aged students using Nemeth code.
- Calculate mathematical problems using the Cranmer abacus, including addition, subtraction, multiplication, and division.
- Demonstrate knowledge of materials and instructional strategies for teaching mathematics and science to students with visual disabilities.
- Demonstrate basic knowledge of foreign language, computer, and music codes, and to identify resources for obtaining information on these codes.
- Demonstrate knowledge of basic guidelines for production of tactile graphics.
- Identify strategies for teaching the reading of tactile graphics to students with visual impairment.
- Demonstrate knowledge of technology tools for creating braille materials and tactile graphics.
- Demonstrate the use of a slate and stylus to produce accurate braille.
- Demonstrate knowledge of materials and instructional strategies for teaching reading and writing of literary braille.

Required Textbooks

Roberts, H., Krebs, B.M., & Taffet, B. (1978). *An introduction to braille mathematics*. Washington, DC: Library of Congress.

Order from The American Printing House for the Blind (www.aph.org): Print: 7-600500-00

Holbrook, C., & D'Andrea, F.M. (2014). *Ashcroft's programmed instruction: Unified English braille (API-UEB)*. Germantown, TN: SCALARS Publishing.

Go to <http://www.scalarspublishing.com/order.html> to order it directly. You need the first book listed with ISBN: 978-0-9960353-0-9.

Recommended Textbooks

- Swenson, A. (1998). *Beginning with Braille: A Balanced Approach to Literacy*. New York, NY: American Foundation for the Blind. ISBN: 978-0-89128-323-2. Order from: [American Foundation for the Blind](#)
- Livingston, R. (1997). *Use of the Cranmer Abacus (2nd ed.)*. Austin, TX: Texas School for the Blind and Visually Impaired. Order # 59420CAP Order from: [Texas School for the Blind and Visually Impaired](#)
- Mangold, P. *Teaching the braille slate and stylus*. Castro Valley, CA: Exceptional Teaching Aids.
- Olsen, M. (1981). *Guidelines and games for teaching efficient braille reading*. New York: American Foundation for the Blind.
- Rex, E. J., Koenig, A. J., Wormsley, D. P., & Baker, R. L. (1994). *Foundations of braille literacy*. New York: American Foundation for the Blind.
- Wormsley, D. B. (2004). *Braille literacy: A functional approach*. New York: AFB Press.

Required Resources

- Cranmer Abacus: Provided by Hadley for free.
- Slate & Stylus. Available from American Printing House for the Blind
- Heavyweight braille paper (or card stock), 8 1/2" x 11"
- Nemeth Code reference sheet. Available from American Printing House for the Blind.
 - Braille copy: Catalog Number: 5-87400-00
 - Print Copy: Catalog Number: 7-87500-00
- Personal computer with computer keyboard capable of six key entry
- Free ware, Perky Duck, from Duxbury Systems
- An Internet connection (high-speed)
- A headset with microphone (your computer may have internal devices, please check)
- A webcam (your computer may have one built-in)

Additional Readings

Braille Authority of North America. (n.d.). The evolution of braille: can the past help plan the future? Braille Authority of North America, Part 3

Barclay, L., Herlich, S.A., & Sacks, S.Z. (2010). Effective Teaching Strategies: Case Studies from the Alphabetic Braille and Contracted Braille Study. *Journal of Visual Impairment and Blindness*, 104(12), 573-64.

Harris, B.A. (2011). Effects of the proximity of paraeducators on the interactions of braille readers in inclusive settings. *Journal of Visual Impairment and Blindness*, 105(8), 467-78.

Holbrook, M., & MacCuspie, P. (2010). The Unified English Braille Code: Examination by science, mathematics, and computer science technical expert braille readers. *Journal of Visual Impairment & Blindness*, 104(9), 533-541.

- Holbrook, M.C. & Koenig, A.J. (1992). Teaching braille reading to students with low vision. *Journal of Visual Impairment and Blindness*, 86(1), 44-48.
- Kamei-Hannan, C., Lawson, H. (2012). Impact of a Braille-Note on writing: Evaluating the process, quality, and attitudes of three students with visual impairments. *Journal of Special Education Technology* 27(3).
- Rosenblum, L., & Herzberg, T. (2011). Accuracy and techniques in the preparation of mathematics worksheets for tactile learners. *Journal of Visual Impairment & Blindness*, 105(7), 402-413.
- Ryles, R., & Bell, E. (2009). Participation of parents in the early exploration of tactile graphics by children who are visually impaired. *Journal of Visual Impairment & Blindness*, 103(10), 625-634.
- Samuels, C. A. (2008). Braille makes a comeback. *Education Week*, 27(43), 27-29.
- Siligo, W. (2005). Enriching the ensemble experience for students with visual impairments. *Music Educators Journal*, 91(5), 31.

Course Relationships to Program Goals and Professional Organizations

This course is part of the Virginia Consortium for Teacher Preparation in Vision Impairment Program for teacher licensure in the Commonwealth of Virginia in the special education areas of Special Education: Visual Impairments PK-12. This program complies with the standards for teacher licensure established by the Council for Exceptional Children (CEC), the major special education professional organization. The CEC standards that will be addressed in this class include Standard 2: Characteristics of Learners, Standard 3: Individual Learning Differences, Standard 4: Instructional Strategies, Standard 5: Learning Environments and Social Interactions, Standard 6: Language, Standard 7: Instructional Planning, Standard 8: Assessment and Standard 9: Professional and Ethical Practice.

GMU POLICIES AND RESOURCES FOR STUDENTS:

- a. Students must adhere to the guidelines of the George Mason University Honor Code [See <http://oai.gmu.edu/the-mason-honor-code/>].
- b. Students must follow the university policy for Responsible Use of Computing [See <http://universitypolicy.gmu.edu/policies/responsible-use-of-computing/>].
- c. Students are responsible for the content of university communications sent to their George Mason University email account and are required to activate their account and check it regularly. All communication from the university, college, school, and program will be sent to students solely through their Mason email account.
- d. The George Mason University Counseling and Psychological Services (CAPS) staff consists of professional counseling and clinical psychologists, social workers, and counselors who offer a wide range of services (e.g., individual and group counseling, workshops and outreach programs) to enhance students' personal experience and academic performance [See <http://caps.gmu.edu/>].
- e. Students with disabilities who seek accommodations in a course must be registered with the George Mason University Office of Disability Services (ODS) and inform their instructor, in writing, at the beginning of the semester [See <http://ods.gmu.edu/>].

- f. Students must follow the university policy stating that all sound emitting devices shall be turned off during class unless otherwise authorized by the instructor.
- g. The George Mason University Writing Center staff provides a variety of resources and services (e.g., tutoring, workshops, writing guides, handbooks) intended to support students as they work to construct and share knowledge through writing
[See <http://writingcenter.gmu.edu/>].

PROFESSIONAL DISPOSITIONS

Students are expected to exhibit professional behaviors and dispositions at all times.

CORE VALUES COMMITMENT

The College of Education & Human Development is committed to collaboration, ethical leadership, innovation, research-based practice, and social justice. Students are expected to adhere to these principles. [See <http://cehd.gmu.edu/values/>]

For additional information on the College of Education and Human Development, Graduate School of Education, please visit our website [See <http://gse.gmu.edu/>]

CONSORTIUM COURSE POLICIES

Honor Code

Each university has its own honor code and it is important for you to review the honor code at your university. However, all students taking this course, regardless of the university they are enrolled in, are expected to follow this honor code and also to pledge all assignments and their exam to indicate that they have followed the honor code. A pledge means that you have not cheated or plagiarized, nor have you given or received assistance that violated the description of how assignments are to be completed for this course. The shortened version may be used: “Pledged” followed by the date and your full name (typed “signatures” will be OK for assignments/tests submitted electronically). A complete copy of each university’s Honor System document is available through

- GMU: <http://academicintegrity.gmu.edu/honorcode/>
- Radford: <http://www.radford.edu/dos-web/honorcode.html>
- NSU: <http://www.nsu.edu/studentjudicial/>
- ODU: http://orgs.odu.edu/hc/pages/Honor_Code.shtml
- JMU: <http://www.jmu.edu/honor/code.shtml#TheHonorCode>

Accommodations for Disability

Students with disabilities who seek accommodations in a course must be registered with the disability service center at their participating university and inform their instructor, in writing, at the beginning of the semester. University specific information regarding eligibility, services and accommodations can be found at:

- GMU: <http://ods.gmu.edu/>

- Radford: <http://www.radford.edu/~dro/>
- NSU: <http://www.nsu.edu/disabilityservices/index.htm>
- ODU: <http://studentaffairs.odu.edu/educationalaccessibility/>
- JMU: <http://www.jmu.edu/ods/>

Cell Phones and Outside Interferences

All cell phones and beepers should be deactivated while in our online class meeting. You need to plan to remove all outside interferences while we are in class. While we are all at our homes, all students should attempt to participate in the class meetings with our full attention.

Course Materials

This course gives you access to PowerPoint files, class lecture notes, handouts, and copyrighted articles. For the articles (available on Blackboard), copyright laws must be followed: print only one copy per student. The PowerPoint presentations, notes, and handouts are provided on Blackboard for your convenience and to facilitate your mastery of concepts presented in this course; Outlines of PowerPoints will be available on Blackboard by noon of the class day or sooner.

Technology Proficiencies

All students participating in this course are expected to be proficient in several technology skills. Students are expected to be proficient in using the Internet and have reliable and consistent Internet access. Students are also expected to have an active email account and to check email regularly. This course requires students to use Blackboard, which is our online course management system located at <http://mymason.gmu.edu>

Key Points Blackboard. Our Blackboard server has been updated from version 8.0 to 9.1. For students this means:

- Students MUST access Blackboard through <http://mymason.gmu.edu>.
- Login
 - GMU Students: Enter your Mason NetID (the first portion of your e-mail address, before the @) then enter your Password (PatriotPass credentials).
 - NON-GMU Students:
 - Username: x_firstname.lastname
 - Password: bbcommunity
- Select the “Organizations” tab to access classes.

Students are expected to login to this system frequently and be proficient in using its features. Students are expected to be proficient in using the computer, which includes downloading and saving files, typing, and word processing skills. Students participating in this course are expected to use Microsoft Word for all written assignments.

Furthermore, students are expected to use Microsoft PowerPoint and Adobe Acrobat Reader for class documents located on the Blackboard website.

Adobe Acrobat Reader is a free software program used to read PDF files and can be downloaded

at: <http://www.adobe.com/support/downloads/product.jsp?product=10&platform=Windows>

Course Policies & Expectations

Attendance. While this course will be conducted online, we will still have weekly meetings via GMU's ConferenceMe and/or Blackboard Collaborate systems. You will receive more information on the process for participating in class the first week of class via Blackboard. Attendance and participation in all scheduled sessions is critically important to your success in this course. These advanced braille codes are technical and required focused attention which you will receive weekly. During these class meetings, we will be covering two topics most weeks. Most topics will be braille-focused but others will focus on materials and methods for STEM education for students with visual impairments. These meetings will NOT be recorded to share with the class afterwards unless there is a specific reason for doing so. Students are expected to not only attend but to be actively involved in the class meetings. Attendance and participation is based upon SUCCESSFUL attendance AND meaningful participation. Students will receive the **50 points** for this assignment in this way:

- Successfully attend and participate in 9-10 sessions: 50 points
- Successfully attend and participate in 8 sessions: 20 points
- Successfully attend and participate in 7 sessions: 5 points
- Any student who does not attend at least 7 class meetings will receive a zero for this assignment. Their lack of attendance will also be reported to the appropriate supervisor at their university and a meeting will be called to discuss the lowering of the final course grade by one letter.
- NOTE: There may arise a situation when class must be cancelled due to unforeseen circumstances. If this occurs, your instructor will notify all students via email and Blackboard announcement that the class meeting has been cancelled. There may also be occasions when the professor will be unable to meet but will provide a video lecture to watch in lieu of a class meeting. These will occur sparingly but everyone should be forewarned.

Late Work. **Simply put, late assignments WILL NOT be accepted.** *Only in the case of serious family emergency or illness will a late submission be considered. You must communicate with the instructor as soon as possible if there is an emergency situation.* This course moves incredibly fast and covers MANY topics. Once you get behind, catching up is almost impossible. Therefore, this policy has been established for your benefit, not as a punishment. "Life does happen" but it is your responsibility to communicate with the instructor as soon as possible.

TaskStream Submission

Every student registered for any Special Education course with a required performance-based assessment is required to submit this assessment, *Four-Week Literacy Plan and Intervention Project* to TaskStream (regardless of whether a course is an elective, a onetime course or part of an undergraduate minor). Evaluation of the performance-based assessment by the course instructor will also be completed in TaskStream. Failure to submit the assessment to TaskStream will result in the course instructor reporting the course grade as Incomplete(IN). Unless the IN grade is changed upon completion of the required TaskStream submission, the IN will convert to an F nine weeks into the following semester.

If you have never used TaskStream before, you **MUST** use the login and password information that has been created for you. This information is distributed to students through GMU email, so it is very important that you set up your GMU email. For more TaskStream information, go to <http://cehd.gmu.edu/api/taskstream>.

Assignment Policies:

- All assignments should be submitted WITHIN Blackboard unless otherwise noted.
- All writing assignments should be submitted using a standard word processor system (preferably Microsoft Word).
- All assignment files should be saved in this format. “Firstname_lastname_assignment”. Thus, an example for the HW 1 assignment would be Derrick Smith HW 1.doc. This helps me keep the assignments organized. When you get a bunch of “HW 1.doc” assignments, things get lost or mixed up.
- All brailled assignments should be submitted using Perky Duck (DXB). The use of any other braille translation software is a violation of the Honor Code and is considered cheating.
- Students are reminded that plagiarism and/or collusion on assignments is considered cheating. If any suspension arises that a student is cheating on assignments, the instructor will collect all evidence, discuss with the appropriate supervisor, set a meeting with the student, and determine a course of action. In most cases, even the suspicion of cheating means at least earning a zero on the assignment. **HOWEVER**, there will be a place within Blackboard to talk with your fellow students to better understand a concept. If you have these types of questions related to your assignments, if you ask them within Blackboard, your fellow students and/or your instructor will help clear up understandings. This is **NOT** cheating as long as you focus on a **CONCEPT**, not a specific problem.

Grading Scale

Grades will be assigned using a standard 100 point system with a total of 750 points available:

Assignment	Point Value
Literacy Plan and Intervention Project	125
Homework Assignments (9 x 25 points)	225

Hadley Abacus Course	50
Nemeth Exam	100
Project 1: Braille Review, Part 1	50
Project 2: Foreign Language	25
Project 3: Slate and Stylus	25
Project 4: UEB	50
Class Attendance and Participation	50
Discussion Board (Research Perspectives)	50

A = 95-100%
A- = 90-94%
B = 80-89%
C = 70-79%
F = 70% and below

Class and Grading Policies:

As indicated above, each requirement has a point value allocated toward the final grade. All requirements must be completed and received by the instructor by the date (see class schedule). At the end of the semester, you will be given a grade based on the total number of points you have accumulated.

1. Unless otherwise indicated, all formal written work must be word-processed. All assignments must be typed and free of grammatical and spelling errors on a graduate level.
2. Please allow time after submitting your assignment, for grades and comments to be posted. Most braille HW assignments will be graded as quickly as possible and returned. Projects take longer to grade due to their length. Most grades will be posted within the week after submission; however, sometimes commitments to other class or duties interfere with grading time.
3. Students will be provided graded assignments within Blackboard for their review. It is important to review errors, particularly to braille assignments, in order to better understand mistakes.

Assignments

Performance-based Assessment (TaskStream submission required).

The NCATE assignment(s) for this class is: **Literacy Plan and Intervention Project Note: Please submit these items together as **ONE pdf file into Taskstream** by the due date.**

1. **Literacy Plan and Intervention Project (125 points):** This assignment is focused on developing a literacy plan for students who are tactile readers. You will be required to (1) observe a student with a visual impairment in an academic class (science or math) and write reflective notes about the class presentation and materials and individual learner needs. (2) You will then select a math or science concept that requires a tactile graphic, and (3) research what types of graphs and charts are needed to introduce, instruct, practice, and assess the concepts (you will present this project to the class). Based on your observations and research, you will create a series of at least 3

comprehensive lesson plans with accompanying tactile models/diagrams/drawings and/or graphics that can be used to introduce and teach the symbols and concepts. Consider the hierarchy of tactile skill development, as you create the materials. The lesson plans should include explicit instruction for literacy skills (e.g. understanding key vocabulary) using age appropriate narrative and expository texts in accessible format AND for tactile development skills (e.g. tactile discrimination).

2. Performance-based Common Assignments (No TaskStream submission required).

Homework Assignments (9 x 25 points): Throughout the semester, you will be completed homework braille assignments. These assignments will not only assess your understanding of the new braille concepts related to Nemeth Code and other braille codes, but provide you valuable practice in the creation of braille documents. Each assignment will consist of a specific set of sentences and/or problems to transcribe in Perky Duck. You will submit these for review. Attention to detail is CRITICAL as one error in a math/science braille transcription can have potentially major implications to your students. Therefore, there will be a high standard of rigor to these assignments.

- a. Errors consist of any deviation from the print. This includes omissions, extra spaces, improper formatting, incorrect braille usage, and incorrect interpretation of the text in light of the content and braille rules.
- b. Each error will be counted as ONE error. However, if the student makes the same error more than one, this will only count as ONE error since the mistake is due to a misunderstanding of the concept.
- c. The following grading scale will be used for grading these assignments:

0 - 1 error = A+ = 25
2 - 3 errors = A = 23
4 - 5 errors = A- = 21
6 - 7 errors = B+ = 18
8 - 9 errors = B = 15
10-11 errors = B- = 13
12-13 errors = C+ = 10
14-15 errors = C = 7
16-17 errors = C- = 4
18-19 errors = D = 1
20 or more errors = F = 0

3. Hadley Abacus Course (50 points): As part of this course, all students will be enrolled in the Hadley School for the Blind Abacus Course. This course is an independent correspondence course. Hadley is providing a scholarship to each student to enroll for free in this course. Each student will be provided free materials, including a Crammer abacus, to complete this course. The course consists of 8 lessons and a post test. Students will complete the course during the semester. To earn full credit, they must complete the course and provide proof of completion to the instructor.

4. **Nemeth Exam (100 points):** Each student will be asked to complete a “take-home” exam to test your understanding of Nemeth Code. This exam will require students to transcribe a math document. The exam will be completed during an agreed upon time frame between the instructors and the students during Spring Break.
5. **Project 1: Braille Review (50 points):** In order to encourage your continual review of literary braille, students will be asked to transcribe a science document that does not include Nemeth code content.
6. **Project 2: Foreign Language (25 points):** Students will be asked to transcribe foreign language materials using appropriate braille rules.
7. **Project 3: Slate and Stylus (25 points):** Students will be asked to complete one slate and style review assignment composed of literary AND Nemeth Code in order to practice their skills. This assignment will be MAILED to your instructor.
8. **Project 4: UEB (50 points):** Students will be asked to transcribe a selection using UEB rules.
9. **Class Attendance and Participation (50 points):** See earlier in the syllabus for specific information regarding this assignment.
10. **Discussion Board (Research Perspectives) (10 x 5 points = 50 points):** Every week, students will be provided a research and/or practice reading connected to a corresponding discussion board question. Students will be required to post to the weekly discussion board by WEDNESDAY of each week (unless otherwise noted) and then make at least TWO SUBSTIATIVE comments to other students’ postings. Only half credit will be given if a student posts their comments but does not interact with other postings. This is a CLASS DISCUSSION.

Other Assignments.

Extra Credit. Opportunities for extra credit should NOT be requested. However, the instructor reserves the right to provide extra credit opportunities throughout the semester. All extra credit opportunities will be directly connected to the content, be worth no more than 10 points, and require “effort”.

Schedule

Dates	Class Mtg.	Topic A	Topic B	Discussion Board (Initial Posting on Wednesday by midnight)	Assignments (Due on Sunday by 8:00 pm EST)
Jan. 20-25	None	Braille Review		DB 1	Project 1
Jan. 26- Feb. 1	1/26	Writing Numerals and Linear Problems (1)	NI, Decimal, Monetary, Percentages, Omissions (2)	DB 2	HW 1
Feb. 2-8	2/2 VIDEO	Alphabet & Abbreviations (3) (VIDEO)	Grouping Symbols (5) (VIDEO)	DB 3	HW 2
Feb. 9-15	2/9	Superscripts & Subscripts (6)	Fractions & Radicals (7)	DB 4	HW 3
Feb. 16-22	2/16	Roman Numerals and Arrows (8 & 9)	Geometry (10)	DB 5	HW 4
Feb. 23-Mar. 1	2/23	Advanced Math (11, 12, 13)	Selected Components	DB 6	HW 5
Mar. 2-8	3/2	Spatial Arrangements (15)	Spatial Arrangements (16)	DB 7	HW 6
Mar. 9-15	None	Spring Break			Nemeth Exam (special time)
Mar. 16-22	3/16	Foreign Language	Tactile Graphics	DB 8	
Mar. 23-29	3/23	Music Braille	Computer Braille	DB 9	Project 2
Mar. 30-Apr.5	3/30	UEB (Literary)	Materials and Methods, Elementary		HW 7
Apr. 6-12	None				Project 3
Apr. 13-19	4/13	UEB (Literary)	Materials and Methods, Middle and High School	DB 10	HW 8
Apr. 20-26	4/20	UEB (Technical)			HW 9
Apr. 27-May 4	None	Work Week for Final Projects			Project 4 Hadley Course (Due by April 30)
May 5-8	None	Literacy Plan and Intervention Project Due			

The Instructor reserves to the right to amend this syllabus (including the assignments and the schedule) throughout the semester, as needed. Students will be alerted in writing regarding any amendments to the syllabus.