



VIRGINIA CONSORTIUM
FOR TEACHER PREPARATION
IN VISION IMPAIRMENT

**Host University: George Mason University
College of Education and Human Development
Division of Special Education and disAbility Research**

Spring 2013
Braille Reading and Writing, 3 - Credits

- GMU – EDSE 616 5S1: Braille Reading and Writing
 - CRN: 17680
- JMU – EXED 632 Braille Reading and Writing
- RU – EDSP 656 Braille Reading and Writing
- NSU – SPE 712 Braille Reading and Writing
- ODU – SPED 6389 Braille Reading and Writing

Instructor: Dr. Holly Lawson	Meeting Dates: 01/23/13 - 05/1/13
Phone: 703-993-5625	Meeting Day(s): Wednesdays
E-Mail: hlawson2@gmu.edu	Meeting Times: 4:00PM-6:40PM
Office Hours: by appointment	Meeting Location: Off-campus Building, KA 101

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 511, Characteristics of Students with VI; (may be taken concurrently), EDSE 512, Braille Code (offered in Fall semester only)

Co-requisite(s): EDSE 511, Characteristics of Students with VI; (may be taken concurrently), EDSE 512, Braille Code (offered in Fall semester only)

Advising Contact Information

Please make sure that you are being advised on a regular basis as to your status and progress through your program. GMU M.Ed. and Certificate students should contact the Special Education Advising Office at (703) 993-3145 for assistance. All other

students should refer to their faculty advisor at their participating university. http://kihd.gmu.edu/teacher_prep_program/contacts

Nature of Course Delivery

Learning activities include the following:

1. Class lecture, discussion, and participation via synchronous face to face, web-conferences or videoconferences
2. Video and other relevant interactive media presentations
3. Application activities, including regular assignments
4. In-depth study and work on course requirements require outside class time.
5. Research and presentation activities
6. Electronic supplements and activities via 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 [American Printing House for the Blind](#):

print version Catalog Number: 7-60050-00

braille version Catalog Number: 5-60050-00

Holbrook, C. M., D'Andrea, F., & Sanford, L. (2011). *Ashcroft's Programmed Instruction in Braille* (4th ed.). Germantown, TN: Scalars. ISBN 0-9712139-4-1

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](#)

Recommended Textbooks

- Roberts, H., Krebs, B. M., & Taffet, B. (1978). *An Introduction to Braille Mathematics*. Washington DC: Library of Congress.
- 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 and Technology

- Cranmer Abacus - American Printing House for the Blind. **Catalog Number:** 1-03150-00
- Slate & Stylus. Available from American Printing House for the Blind
- Heavyweight braille paper, 8 1/2" x 11"
- Standard Perkins Braille (Available through VI Consortium on Loan)
- 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 (for those who choose to submit homework electronically)
- An Internet connection
- A headset with microphone (home streamers only)
- A webcam (home streamers only)

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., & MacCusprie, 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 Relationship 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 are listed on the following website:

<http://www.cec.sped.org/Content/NavigationMenu/ProfessionalDevelopment/ProfessionalStandards/>. 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://academicintegrity.gmu.edu/honorcode/>].
- b. Students must follow the university policy for Responsible Use of Computing [See <http://universitypolicy.gmu.edu/1301gen.html>].
- 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.html>
- ODU: <http://studentaffairs.odu.edu/educationalaccessibility/>

- JMU: <http://www.jmu.edu/ods/>

INCLEMENT WEATHER

If classes are cancelled at George Mason University, a message will be posted on the class Blackboard site and all class members will receive an email. Because such cancellations are often at the last minute, it may be difficult to get this message prior to leaving for class. Please note that the cancellation of classes due to inclement weather is determined by the decision of the instructing university only. If the instructing university is open and operational then you are expected to attend class. Since students are participating in the course across regions, you are responsible for contacting the instructor as soon as possible. In case of major power outages.

CELL PHONES AND WEAPONS

All cell phones and beepers should be deactivated while in the classroom. Also, University rules at all participating universities prohibit the possession any firearm, other weapon, or explosive.

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.

Attendance (**60 points**) at all sessions is very important because many of the activities in class are planned in such a way that they cannot necessarily be recreated outside of the class session. Information, activities, and guest speakers will be presented in class that are not a part of the text and can only be experienced in the class sessions.

Furthermore, as part of this course you are expected to be an active and respectful participant, which includes actively engaging in class discussions and activities.

Students will complete an in-class activity each week. Students can earn up to 4 points per class for attendance and participation in in-class activities. Students who miss a class will not have the opportunity to make up missed in-class assignments. Successful completion of Blackboard class activities will be tracked in the blackboard grade book. As a courtesy, please email the instructor, if you will not be in class.

Late Work.

Re-dos & late assignments will **not** be accepted

TaskStream Submission

For student evaluation, program evaluation, and accreditation purposes, all students are required to submit an NCATE assignment from selected Special Education courses to TaskStream. The NCATE assignment required for this course must be submitted electronically to Mason's NCATE management system, TaskStream: (<https://www.taskstream.com>).

Note: Every student registered for any EDSE course as of the Fall 2007 semester is required to submit NCATE assignments to TaskStream (regardless of whether a course is an elective or part of an undergraduate minor). *The NCATE assignment will not be graded until it is submitted to Taskstream, even if it is submitted to Blackboard by the due date.* TaskStream information is available at <http://gse.gmu.edu/programs/sped/>. Students who do not submit the required NCATE assignment to TaskStream will receive a grade of Incomplete (IN) in the course. The Incomplete (IN) will change to a grade of (F) if the required signature assignment has not been posted to TaskStream by the incomplete work due date listed in the current semester's Schedule of Classes.

Grading Scale

Grades will be assigned, using a point system, of a total of 645 available points:

Assignments	Points
Braille Homework	150
Abacus Quizzes (x3)	120
Responses to Braille Readings (x5)	120
Literacy Plan and Intervention Project	120
Final Exam	75
Class Participation and Attendance	60
Total	645

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

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 due 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.

- Unless otherwise indicated, all formal written work must be word-processed. All assignments must be typed and free of grammatical and spelling errors.

Assignments

NCATE/TaskStream Assignment

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:** 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. You will then, 2) 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).

Other Assignments

- 2. Assignment # 1: Six (6) Braille Homeworks** – (150 points total)
For each of these assignments valued at 25 points each you will be given directions that are unique to each assignment. They may include transcription of math problems into Nemeth code, slate and stylus, interlining, identifying errors/strengths/weaknesses, and adapting worksheets. Braille portions must be completed using a Perkins Braille Writer and the hard copy braille will be handed in/mailed to the instructor. A **half-point** will be subtracted for each error, including each braille cell of omitted characters/word/s, repeat errors, and contractions. Please take your time with the assignments, ask questions if you are unsure, and braille slowly. Re-dos & late assignments will **not** be accepted

Braille homework assignments will be transcribed using the Perkins Braille Writer. **Electronic braille will not be accepted.** Work transcribed using braille translation software is unacceptable and subject to academic dishonesty policies. Work must be transcribed on standard braille paper without tractor-feed holes. For an 8.5 x 11 sheet of braille paper, you should have no more than 30 braille cells per line for portrait and 40 cells per line for landscape. For an 11.5 x 11 sheet of paper, you should have no more than 40 cells per line.

In order to provide students with timely feedback, homework assignments will need to be submitted in-class or mailed to the instructor. **Assignments that are mailed must be post-marked on the Saturday before each class date** and should arrive by Monday. Late penalties will apply to assignments not received by Tuesday (that allows two days for mailing, if it is post-marked on Saturday). Send assignments to:

Holly M. Lawson
George Mason University
4400 University Drive, MS 1F2
Fairfax, Virginia 22030

- 3. Reading Passage Assignments:** (120 points total) There are 5 reading passage assignments. For each assignment students will be provided a list of questions. Passages 1, 2 and 3 are each valued at 20 points and have 6 questions. Passages 4 and 5 are each valued at 40 points and have 10 questions each. Students must read the braille passage and answer the questions **in braille**. A **point** will be subtracted for each braille error or incorrect answer. For reading passage assignments **ONLY**, you are permitted to use Perky Duck. Re-dos & late

assignments will **not** be accepted.

4. **Abacus Quizzes:** (120 points total) There are 3 in class abacus quizzes. Each quiz will correspond to an operation (addition, subtraction, and multiplication). Each quiz is valued at 40 points. For each quiz students will come up to the instructor one at a time and solve 5 problems. Each problem will be valued at up to 2 points. After the first quiz using this format the instructor may opt to change to a multiple choice format with 10 questions, each valued at 1 point each.
5. **Final Take Home Exam:** (100 points): The Final Exam for this class will be a take home exam. The exam will include transcription/interlining of literary and mathematical braille. It also may include multiple choice or short answer questions based on the readings/lectures; identifying errors in interlining; describing mathematical solutions using the abacus; identifying simple braille symbols for computer, foreign language, and music braille; identifying state standards; adaptations, and modifications to science, social science, expanded core curriculum, and math. The exam also may include case studies to which you must respond.
6. **Extra Credit:** Extra Credit (25 maximum):
 - a. Volunteer at the annual VA AER conference, 4/21-4/23. You will be awarded 1 point for every half hour (30 minutes) of service for up to 5 points of extra credit. You must provide proof of service by having the volunteer coordinator sign this page of your syllabus (see below).
 - b. Up to 20 points can be earned for extra credit by (a) completing a music braille homework, (b) completing an additional reading assignment or (c) completing a slate and stylus assignment. Extra credit must be turned in by May 2, 2012.

This is to Certify that _____ has contributed _____ hours of volunteer service at the annual VA AER Conference.	
Signature: _____ (VA AER Volunteer Coordinator)	Date: _____

Date	Nemeth/Braille Code Topic	Readings	Due Dates
Jan. 23	Syllabus overview Lesson 1: Writing Numbers and Linear Problems ABACUS: Setting Numbers & Beginning Addition	Holbrook & MacCuspie BWB-Ch. 1&2	
Jan. 30	Lesson 2: Numeric Indicator, Decimal Point, Monetary, Percent & Signs of Omission Lesson 3: Alphabet, English Letter Indicator, Abbreviations ABACUS: Addition, cont. SLATE & STYLUS Practice (bring it each week!)	BWB-Ch. 4	Reading 1
Feb. 6	Lesson 5: Grouping and Number Bases Lesson 6: Superscripts, Subscripts and Level Indicators ABACUS: Addition, cont.	BWB-Ch. 3 & 5	Braille 1 (Lesson 1)
Feb. 13	Lesson 7: Fractions Tactile Graphics Guest Presenter: Shanna Sciola ABACUS: Addition, cont.	Rosenblum & Herzberg Ryles & Bell	Reading 2
Feb. 20	Braille Music Guest Presenters: Karen Gearreald, Ruth Rozen	Siligo	Braille 2 (Lessons, 1, 2, & 3)
Feb. 27	VA AER CONFERENCE-NO CLASS MEETING		
March 6	Lessons 8 & 9: Roman Numerals and Arrows Foreign Language Braille ABACUS: Introduction of Subtraction	BWB-Ch. 6 & 7	Reading 3 Abacus Quiz: Addition
March 13	SPRING BREAK-NO CLASS		
March 20	Technology ABACUS: Subtraction Cont.	Kamei-Hannan & Lawson	Braille 3 (Lessons 1-7) Take Home Final Exam Distributed
March 27	Lessons 10: Shapes ABACUS: Introduction to Multiplication		Foreign Language HW Abacus Quiz: Subtraction
	Lesson 14: Contractions and		Reading 4

April 3	Short Form Words ABACUS: Multiplication cont		
April 10	NEMETH: Lessons 11, 12 and 13: Selected Components ABACUS: Multiplication cont		Reading 5
April 17	Lessons 15 & 16 Spatial Arrangements ABACUS: Introduction to Division and Decimals COMPUTER BRAILLE	Samuels	Braille 4 (Lessons 1-10 & 14) Abacus Quiz: Multiplication
April 24	REVIEW DAY for Nemeth and Abacus Guest Presentation: TBA		
May 1	Class Presentations for Literacy Plan and Intervention Project		Braille 5 (Lessons 1-16) Take Home Finals Due