



**College of Education and Human Development  
Division of Special Education and disAbility Research**

Spring 2017  
EDSE 616: Braille Reading and Writing  
3 – Credits  
Section DL1; CRN: 18081  
Section 6V1; CRN: 21620  
Section 6Y1; CRN: 21642

|   |   |
|---|---|
| <b>Instructor:</b> Kimberly Avila, PhD, COMS  | <b>Meeting Dates:</b> 01/23/17 – 05/08/17 |
| <b>Phone:</b> 703.993.5625  | <b>Meeting Day(s):</b> Monday             |
| <b>E-Mail:</b> kavila@gmu.edu   | <b>Meeting Time(s):</b> 4:30 pm - 7:10 pm |
| <b>Office Hours:</b> Monday and Wednesday<br>3:00-4:30 pm (virtual) or by appointment   | <b>Meeting Location:</b> Internet         |
| <b>Office Location:</b> Finley 203a   | <b>Other Phone:</b> N/A                   |
| <b>Mail:</b><br>Kim Avila<br>GMU: MSN 1f2<br>4400 University Drive<br>Fairfax, VA 22030 |   |

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

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### Quick Links

- [Course Assignments](#)
- [Course Schedule](#)

### 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.

Schedule Type: LEC

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 teacher candidates/students should contact the Special Education Advising Office at (703) 993-3670 for assistance. All other teacher candidates/students should refer to their faculty advisor.

### **Advising Tip**

Did you know you can evaluate your progress in the program at any time by running a Degree Evaluation in Patriotweb? Step by step instructions are available at <http://registrar.gmu.edu/students/degree-evaluation/>.

### **Course Delivery Method**

Learning activities include the following:

1. Class lecture and discussion
2. Application activities
3. Small group activities and assignments
4. Video and other media supports
5. Research and presentation activities
6. Electronic supplements and activities via Blackboard

This course will be delivered online (76% or more) using a synchronous format via Blackboard Learning Management system (LMS) housed in the MyMason portal. You will log in to the Blackboard (Bb) course site using your Mason email name (everything before @masonlive.gmu.edu) and email password. The course site will be available on Monday, January 23, 2017.

**Under no circumstances, may candidates/students participate in online class sessions (either by phone or Internet) while operating motor vehicles. Further, as expected in a face-to-face class meeting, such online participation requires undivided attention to course content and communication.**

### *Technical Requirements*

To participate in this course, students will need to satisfy the following technical requirements:

- High-speed Internet access with a standard up-to-date browser, either Internet Explorer or Mozilla Firefox is required (note: Opera and Safari are not compatible with Blackboard).
- Students must maintain consistent and reliable access to their GMU email and Blackboard, as these are the official methods of communication for this course.
- Students will need a headset microphone for use with the Blackboard Collaborate web conferencing tool.
- Students may be asked to create logins and passwords on supplemental websites and/or to download trial software to their computer or tablet as part of course requirements.
- The following software plug-ins for PCs and Macs, respectively, are available for free download:
  - Adobe Acrobat Reader: <https://get.adobe.com/reader/>
  - Windows Media Player: <https://windows.microsoft.com/en-us/windows/downloads/windows-media-player/>
  - Apple Quick Time Player: [www.apple.com/quicktime/download/](http://www.apple.com/quicktime/download/)

### *Expectations*

- Course Week:

Our course week will begin on the day that our synchronous meetings take place as indicated on the Schedule of Classes.

- Log-in Frequency:

Students must actively check the course Blackboard site and their GMU email for communications from the instructor, class discussions, and/or access to course materials at least 3 times per week. In addition, students must log-in for all scheduled online synchronous meetings.

- Participation:

Students are expected to actively engage in all course activities throughout the semester, which includes viewing all course materials, completing course activities and assignments, and participating in course discussions and group interactions.

- Technical Competence:

Students are expected to demonstrate competence in the use of all course technology. Students who are struggling with technical components of the course are expected to seek assistance from the instructor and/or College or University technical services.

- Technical Issues:

Students should anticipate some technical difficulties during the semester and should, therefore, budget their time accordingly. Late work will not be accepted based on individual technical issues.

- Workload:

Please be aware that this course is **not** self-paced. Students are expected to meet *specific deadlines* and *due dates* listed in the **Class Schedule** section of this syllabus.

It is the student's responsibility to keep track of the weekly course schedule of topics, readings, activities and assignments due.

- Instructor Support:

Students may schedule a one-on-one meeting to discuss course requirements, content or other course-related issues. Those unable to come to a Mason campus can meet with the instructor via telephone or web conference. Students should email the instructor to schedule a one-on-one session, including their preferred meeting method and suggested dates/times.

- Netiquette:

The course environment is a collaborative space. Experience shows that even an innocent remark typed in the online environment can be misconstrued. Students must always re-read their responses carefully before posting them, so as others do not consider them as personal offenses. *Be positive in your approach with others and diplomatic in selecting your words.* Remember that you are not competing with classmates, but sharing information and learning from others. All faculty are similarly expected to be respectful in all communications.

- Accommodations:

Online learners who require effective accommodations to insure accessibility must be registered with George Mason University Disability Services or with the disability service office of each candidates Consortium university.

## **Learner Outcomes**

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

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

## **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. This program complies with the standards for teacher licensure established by the Council for Exceptional Children (CEC), the major special education professional organization, as well as those established by the Interstate Teacher Assessment and Support consortium (InTASC). The standards addressed in this class include CEC Standard 1: Learner development and individual learning differences (InTASC 1,2); CEC Standard 3: Curricular content knowledge (InTASC 4,5); CEC Standard 4: Assessment (InTASC 6) & CEC Standard 5: Instructional planning and strategies (InTASC 7,8).

## Required Textbooks

1. Holbrook, M. C., & D'Andrea, F. M. (2014). *Ashcroft's programmed instruction: Unified English Braille* (Fifth Edition). Germantown, TN: Scalars Publishing. ISBN: 978-0-9960353-0-9.  
This is the same book required for Braille Code  
[Order Ashcroft UEB online from Scalars Publishing](#)
2. *Abacus Made Easy Second Edition Simplified Manual for Teaching the Cranmer Abacus*. (1975). American Printing House for the Blind. Louisville, KY.  
Available in print: catalog number: 4-00100-00  
Available in braille: Catalog Number: 5-00220-00  
[Order directly from APH.](#)
3. [Nemeth Code Reference Sheet from the American Printing House for the Blind](#)  
Available in either print or embossed braille  
[Nemeth Code Reference Sheet for Basic Mathematics: Braille 5-87400-00](#)  
[Nemeth Code Reference Sheet for Basic Mathematics: Print 7-87500-00](#)

Required textbooks listed below are free and may be downloaded online.

4. [UEB Guidelines for Technical Material \(GTM\) in PDF print format](#)
  - [UEB Guidelines for Technical format in BRF format](#) (for candidates who use electronic and/or embossed braille)
5. [UEB Rulebook \(2013\)](#)
  - [Available in BRF](#)
6. [The Nemeth Braille Code for Mathematics and Science Notation \(1972\)](#) Please note: this publication does not include the code switch information
7. [Guidance for Transcription Using the Nemeth Code within UEB Contexts](#)
8. [Provisional Guidance for Transcribing Foreign Language Material in UEB](#)
9. [Music Braille Code, 2015](#)

## Required Resources

- [Nemeth Code Tutor](#) : Free software for Nemeth Code practice
- Perky Duck or other manual input electronic braille (may not be a transcription program)

- Manual braille writer: may be checked out from your Consortium university

The following supplies are available from various vendors. [APH offers a student starter pack with these items included:](#)

- Cranmer Abacus
- Braille paper
- Slate & stylus

### Recommended Textbooks

American Psychological Association. (2010). *Publication manual of the American Psychological Association* (6th ed.). Washington, DC: Author.

Craig, R. (1987). *Learning the Nemeth Braille code: A manual for teachers and students*. American Printing House for the Blind.  
 Print version catalog number: 7-686-53-00  
 Tactile braille copy of books: 5-68653-00  
 Phone ordering: 800-223-1839  
[Order online from APH: Learning Nemeth Code](#)

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.

Swenson, A. (2016). *Beginning with braille: Firsthand experiences with a balanced approach to literacy* (2<sup>nd</sup> edition). 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.

### Additional Readings

Additional *required* readings are found on Blackboard

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, 31.

### **Course Performance Evaluation**

Students are expected to submit all assignments on time in the manner outlined by the instructor (e.g., Blackboard, Tk20, hard copy).

### **Tk20 Performance-Based Assessment Submission Requirement**

It is critical for the special education program to collect data on how our students are meeting accreditation standards. Every teacher candidate/student registered for an EDSE course with a required Performance-based Assessment (PBA) is required to upload the PBA to Tk20 (regardless of whether a course is an elective, a one-time course or part of an undergraduate minor). A PBA is a specific assignment, presentation, or project that best demonstrates one or more CEC, InTASC or other standard connected to the course. A PBA is evaluated in two ways. The first is for a grade, based on the instructor's grading rubric. The second is for program accreditation purposes. Your instructor will provide directions as to how to upload the PBA to Tk20.

For EDSE 616, the required PBA Four-Week Literacy Plan and Intervention Project. Failure to submit the assignment to Tk20 will result in reporting the course grade as Incomplete (IN). Teacher candidates/students have until five days prior to the University-stated grade change deadline to upload the required PBA in order to change the course grade. When the PBA is uploaded, the teacher candidate/student is required to notify the instructor so that the "IN" can be changed to a grade. If the required PBA is not uploaded five days prior to the University-stated grade change deadline and, therefore, the grade not changed, it will become an F. Please check to verify your ability to upload items to Tk20 before the PBA due date.

### **Assignments**

#### **Performance-based Assessment (Tk20 submission required)**

Literacy Plan and Intervention Project (100 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 a content area and write reflective notes regarding the observation and student needs. (2) You will then select a content area concept that requires instruction and includes 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 part of the project to the class). Based on your observations and research, you will create a series of at least 4 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).

A complete description of this project and rubric are found on Blackboard.

**College Wide Common Assessment (Tk20 submission required)**

None required.

**Performance-based Common Assignments (No Tk20 submission required.)**

None required.

**Other Assignments**

Candidates are required to submit all assignments as required via designated Blackboard upload, post mail, or other specified submission method. Items submitted through the non-designated method may not count as completed or submitted.

**Participation.** Active participation in discussions and other course related content is essential to master material and concepts. Each week, two participation points are available and may require submitting various materials, transcription samples, documents or discussion board posts. In certain weeks, no material submission may be required. Candidates who arrive late, leave early or are otherwise not present for the entire class may lose all or some participation points. Each week, participation requirements will vary and will be specified in the class. Unexcused absences will not be permitted to make up participation points.

**Abacus Assignment.** This assignment will require candidates to explore the Cranmer abacus and to demonstrate proficiency skills related to basic and intermediate mathematical computation with the abacus.

**Homework Assignments.** This course contains eight homework assignments that will directly relate to content and transcription work in math, literary, other special codes, abacus work, formatting, essays, surveys, group work, research, and other activities. Each homework assignment will be posted on Blackboard with specified activities and point allocation. Each

homework assignment is due by the beginning of the class (4:30 pm) of the date specified on the course schedule. Transcription must be done with manual or electronic input braille programs (Perky Duck, braille writer). No transcription programs may be used to produce any product in this course.

**Checkpoints.** Two checkpoints in this class will assess concepts related to their unit of study and other transcription concepts, braille instruction, and research. Checkpoint transcription may include electronic and manual braille production (braille and slate & stylus) in addition to producing other relevant materials.

**Portfolio.** This class requires each candidate produce a transcription portfolio based on UEB literary and technical transcription. Literary and formatting concepts may also be required. The portfolio is to be produced with a manual braille and slate & stylus. These materials are to be mailed and postmarked by the date specified. Mail tracking is highly recommended.

Mailing address:  
Kim Avila  
GMU: MSN 1F2  
4400 University Drive  
Fairfax, VA 22030

## **Course Policies and Expectations**

### **Attendance/Participation**

Attendance at all course meetings is mandatory. Only in the case of an emergency or other urgent situation will an absence be excused. Candidates must inform the instructor in advance of an upcoming, unavoidable absence, or as soon as possible if there is an emergency situation. Due to the rapid nature of this course, more than one absence may result in dismissal from this class. It is up to the discretion of the instructor to excuse the absence, which may or may not allow makeup of participation points.

### **Late Work**

All work is due by the start of class on the date specified in the course schedule. All coursework must be submitted on time, as each assignment in this class builds upon previous content. A candidate who has an approved accommodation for extended time must inform the instructor in writing, in advance with documentation for this approved accommodation from his/her Consortium university before an assignment requiring extended time is due. In the event of an emergency, candidates must inform the instructor of the situation; it is up to the instructor to determine if a scenario may warrant a time extension. Time extensions will not be granted retroactively and in the rare event an extension is granted, it may be subjected to point reduction.

### **Grading Scale**

| Percent | Grade | Points  |
|---------|-------|---------|
| 93-100  | A     | 360-388 |
| 90-92   | A-    | 349-359 |
| 88-89   | B+    | 341-348 |
| 83-87   | B     | 322-340 |
| 80-82   | B-    | 310-321 |
| 70-79   | C     | 271-320 |
| <69     | F     | <270    |

| Assignment                                       | Points | Due   |
|--|--------|---|
| Participation 14x2                               | 28     | Weekly  |
| Homework 8x10                                    | 80     | Specified in course schedule                                |
| Checkpoints 2x50                                 | 100    | UEB: Feb 27<br>Nemeth: April 24                             |
| Abacus assignment                                | 20     | March 6   |
| Transcription portfolio                          | 60     | March 20  |
| Unit plan with field experience and presentation | 100    | Unit plan due: April 10<br>Unit plan presentation: April 17 |
| Total  | 388    |   |

### Professional Dispositions

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

### Core Values Commitment

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

### GMU Policies and Resources for Students

#### Policies

- Students must adhere to the guidelines of the Mason Honor Code (see <http://oai.gmu.edu/the-mason-honor-code/>).
- Students must follow the university policy for Responsible Use of Computing (see <http://universitypolicy.gmu.edu/policies/responsible-use-of-computing/>).
- Students are responsible for the content of university communications sent to their Mason 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.

- Students with disabilities who seek accommodations in a course must be registered with George Mason University Disability Services or with the disability service office at the candidate's Consortium University. Approved accommodations will begin at the time the written letter from Disability Services is received by the instructor (see <http://ods.gmu.edu/>).
- Students must follow the university policy stating that all sound emitting devices shall be silenced during class unless otherwise authorized by the instructor.

## Campus Resources

- Support for submission of assignments to Tk20 should be directed to [tk20help@gmu.edu](mailto:tk20help@gmu.edu) or <https://cehd.gmu.edu/api/tk20>. Questions or concerns regarding use of Blackboard should be directed to <http://coursessupport.gmu.edu/>.
- 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/>).
- 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/>).
- The George Mason University Office of Student Support staff helps students negotiate life situations by connecting them with appropriate campus and off-campus resources. Students in need of these services may contact the office by phone (703-993-5376). Concerned students, faculty and staff may also make a referral to express concern for the safety or well-being of a Mason student or the community by going to <http://studentsupport.gmu.edu/>, and the OSS staff will follow up with the student.

For additional information on the College of Education and Human Development, please visit our website <https://cehd.gmu.edu/>.

## Class Schedule

Note: Faculty reserves the right to alter the schedule as necessary, with notification to students.

| Date    | Topics  | Readings and assignments                             |
|---------|---|--|
| Jan. 23 | <ul style="list-style-type: none"> <li>• Course overview</li> </ul> | <a href="#">Overview of changes from EBAE to UEB</a> |

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|----------------|--|--|
|                | <ul style="list-style-type: none"> <li>Literary braille: EBAE to UEB transition: overview and practice of changes</li> <li>Introduction to UEB numeric (part I)</li> <li>Braille flashcards</li> </ul>   | <p>Ashcroft Ch. 3<br/>Exercises 3.2.1, 3.2.2, 3.2.3</p> <p><a href="#">GTM</a>: pp. 8-10 and 15-17</p>   |
| <b>Jan. 30</b> | <ul style="list-style-type: none"> <li>Math transcription: UEB Part II</li> <li>Spatial layout for UEB</li> <li>Groupings</li> <li>Fractions and mixed numbers</li> <li>Currency and measurement</li> <li>Square root and radicals</li> <li>Creating braille number lines</li> </ul> | <p><a href="#">GTM</a>: pp. 12-14, 20-25, 31-33, 40</p> <p>Ashcroft Ch. 4.4: Spatial equations for addition, subtraction, and division<br/>Exercises 4.4.1, 4.4.2</p> <p>Ashcroft Ch. 5<br/>Exercises 5.1.2, 5.2.1</p> <p>Ashcroft Ch. 6<br/>Exercises 6.6.1, 6.6.2, 6.7.1</p> <p><a href="#">UEB Rulebook</a>: 11.5<br/><a href="#">UEB Rulebook</a>:16.2</p> <p><b>Due: Homework 1</b></p> |
| <b>Feb. 6</b>  | <ul style="list-style-type: none"> <li>Math transcription: UEB Part III</li> <li>Percent, degrees, and angles</li> <li>Superscripts and subscripts</li> <li>Special symbols: lines and line segments, shape indicators</li> <li>Adapting math worksheets</li> </ul>                  | <p><a href="#">GTM</a>: pp. 12-13, 50, 58</p> <p>Ashcroft Ch. 7<br/>Ashcroft Ch. 10<br/>Exercises: 10.6.1, 10.6.2</p> <p>Ashcroft Ch. 11<br/>Exercises 11.6.1<br/><a href="#">UEB Rulebook</a>: 11.6-7</p> <p><b>Due: Homework 2</b></p>   |
| <b>Feb. 13</b> | <ul style="list-style-type: none"> <li>Math transcription: UEB Part IV</li> <li>Roman numerals and additional math symbols</li> <li>Matrices and Vectors</li> <li>Literary reading practice activity</li> </ul>  | <p><a href="#">GTM</a>: pp. 11, 69-73</p> <p>Ashcroft Ch. 12<br/>Exercises 12.4.2, 12.4.3<br/>UEB Rulebook 11.8</p> <p><b>Due: Homework 3</b></p>  |
| <b>Feb. 20</b> | <ul style="list-style-type: none"> <li>UEB review</li> <li>UEB and Chemistry</li> <li>Introduction to the abacus</li> <li>Tactile games and interactive braille lessons</li> </ul>   | <p><a href="#">GTM</a>: pp. 74-82</p> <p><a href="#">UEB Rulebook</a>: 11.9</p> <p><i>Abacus Made Easy</i></p> <p><b>Due: Homework 4</b></p>   |
| <b>Feb. 27</b> | <ul style="list-style-type: none"> <li>Abacus cont'd</li> </ul>  | <p><i>Abacus Made Easy</i></p>   |

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|                 | <ul style="list-style-type: none"> <li>• UEB Checkpoint</li> </ul>   | <b>UEB Checkpoint</b>   |
| <b>March 6</b>  | <ul style="list-style-type: none"> <li>• Methods to create tactile graphics</li> <li>• Techniques and tools for science and math instruction</li> <li>• Transcription of electronic information (Computer notation)</li> </ul>             | <p><a href="#">GTM</a>: pp. 83-87</p> <p>Ashcroft Ch. 4: Electronic addresses<br/>Ch. 8: # and other special symbols<br/>Ch. 12: dashes, backslash</p> <p><a href="#">UEB Rulebook</a>: 11.10</p> <p>Due: Abacus overview assignment</p>  |
| <b>March 13</b> | <ul style="list-style-type: none"> <li>• Spring break: no class meeting</li> </ul>   |   |
| <b>March 20</b> | <p>Code switching<br/>14.6 Nemeth Code within UEB text<br/>Introduction to Nemeth Code</p> <ul style="list-style-type: none"> <li>• Nemeth numbers</li> <li>• Nemeth symbols: commas, decimals, signs of operation</li> </ul>              | <p><a href="#">Guidance for Transcription Using the Nemeth Code within UEB Contexts</a></p> <p><a href="#">Nemeth Tutorial</a>: Chapters 1, 2.1, 3.1, 3.2</p> <p><a href="#">Nemeth Code</a>: Rules I, II, XIX</p> <p><b>Due: Transcription portfolio (postmarked by this date)</b></p> <p><b>Due: Homework 5</b></p> |
| <b>March 27</b> | <p>Nemeth</p> <ul style="list-style-type: none"> <li>• Spatial arrangements</li> <li>• Fractions</li> <li>• Grouping</li> </ul> <p>Techniques for transcribing various materials, worksheets, tables, charts, special formatting, etc.</p> | <p><a href="#">Nemeth Tutorial</a></p> <p><a href="#">Nemeth Code</a>: Rules X, XII, XXIV, Rule XVIII,</p> <p><a href="#">Nemeth Code</a>: pp. 75</p> <p><b>Due: Homework 6</b></p>   |
| <b>April 3</b>  | <p>Nemeth</p> <ul style="list-style-type: none"> <li>• Signs and symbols of comparison</li> <li>• Shapes</li> <li>• Super and subscripts</li> </ul> <p>Braille transcription programs<br/>Transcription techniques for TBVIs</p>           | <p><a href="#">Nemeth Tutorial</a></p> <p><a href="#">Nemeth Code</a>: Rules XIII, XVI, XVIII, XXI,</p> <p><b>Due: Homework 7</b></p>   |
| <b>April 10</b> | <p>Nemeth</p> <ul style="list-style-type: none"> <li>• Modifier, radicals, formatting</li> <li>• Advanced math transcription</li> </ul> <p>Overview of MathSpeak</p>   | <p><a href="#">Nemeth Tutorial</a></p> <p><a href="#">Nemeth Code</a>: Rule XV</p>  |

|                 |  |  |
|-----------------|--|--|
|                 | <ul style="list-style-type: none"> <li>MathSpeak class activity</li> </ul>   | <a href="#">MathSpeak</a><br><b>Due: Unit plans</b><br><b>Due: Homework 8</b>  |
| <b>April 17</b> | Unit plan presentations  |  |
| <b>April 24</b> | Nemeth Checkpoint<br>Special codes: <ul style="list-style-type: none"> <li>Foreign languages</li> <li>Music braille</li> </ul> | <a href="#">UEB Rulebook</a> : Section 13 and Section 14 for music braille<br><br><a href="#">Music Braille Code, 2015</a><br><br><a href="#">UEB Rulebook</a> : 3.18<br><br><a href="#">Provisional Guidance for Transcribing Foreign Language Material in UEB</a><br><br><b>Due: Nemeth Checkpoint</b> |
| <b>May 1</b>    | Course conclusion  |  |

### Assessment Rubric: Unit Plan

|  | <b>Does Not Meet Expectations</b>   | <b>Meets Expectations</b>   | <b>Exceeds Expectations</b>  |
|--|---|---|--|
|  | <b>1</b>  | <b>2</b>  | <b>3</b>   |
| Learner Development and Individual Learning Differences<br><br>CEC/B&VI Standards 1<br><br>The candidate will provide learner background information | The candidate provides partial information about learner's background omitting relevant information about student experiences and educational strategies currently being employed or information about learner characteristics. | The candidate provides general information about learner's background and educational experiences, highlighting individualized strategies that are currently being used to enhance language development and teach communication | The candidate provides detailed information about learner's background and educational experiences, highlighting the extent to which tactile skills have been taught and individualized strategies that are currently being used to enhance language |

|   | <b>Does Not Meet Expectations</b>  | <b>Meets Expectations</b>   | <b>Exceeds Expectations</b>  |
|---|--|---|--|
|   | <b>1</b>   | <b>2</b>  | <b>3</b>   |
|   |  | <p>skills to learner with visual impairment. The candidate provides general information on learner characteristics, including visual condition and the effects of the learners' visual impairment on learning and experience. Candidate describes the perspective of cultural and linguistic differences on growth and development.</p> | <p>development and teach communication skills to learner with visual impairment. The candidate provides detailed information on learner characteristics, including visual condition and the effects of the learners' visual impairment on 1) learning and experience and 2) receptive and expressive literacy and communication. Candidate describes the perspective of cultural and linguistic differences on growth and development.</p> |
| <p>Learning Environments</p> <p>CEC/B&amp;VI Standard 2</p> | <p>Candidate describes the learning environment in which in the intervention took place, specifying the age, grade</p> | <p>Candidate describes the learning environment in which in the intervention took place, specifying the age, grade</p>  | <p>Candidate describes the learning environment in which in the intervention took place, specifying the age, grade</p>   |

|   | <b>Does Not Meet Expectations</b>   | <b>Meets Expectations</b>   | <b>Exceeds Expectations</b>   |
|---|---|---|---|
|   | <b>1</b>  | <b>2</b>  | <b>3</b>  |
| <p>The candidate will design a learning environment description with identified supports of lesson integration in placement setting. The candidate describes the use of multisensory learning environments that encourage student participation and materials/technology needed for the learner with a visual impairment. The candidate provides for incidental learning opportunities.</p> | <p>level, subject matter of the learner with visual impairment and the school/program in which the student is enrolled. Candidate provides cursory description of the learning environment that encourage active participation in individual and group activities</p> | <p>level, subject matter of the learner with visual impairment and the school/program in which the student is enrolled.</p> <p>Candidate identifies supports needed for lesson integration into various program placements</p> <p>Candidate describes the use of multisensory learning environments that encourage active participation in individual and group activities</p> <p>Candidate describes the classroom organization needed to accommodate materials, equipment, and technology for student with visual impairment.</p> | <p>level, subject matter of the learner with visual impairment and the school/program in which the student is enrolled. Candidate describes the extent to which the learning environment encourages active participation in individual and group activities</p> <p>Candidate describes and supports needed for lesson integration into various program placements</p> <p>Candidate designed and clearly described multi-sensory learning environments that encourage active participation in group and individual activities</p> <p>Candidate describes the classroom</p> |

|   | <b>Does Not Meet Expectations</b><br><br><b>1</b>  | <b>Meets Expectations</b><br><br><b>2</b>   | <b>Exceeds Expectations</b><br><br><b>3</b>  |
|---|--|---|--|
|   |  |   | organization needed to accommodate materials, equipment, and technology for student with visual impairment. Candidate describes access to incidental learning experiences.   |
| <p>Content Area Lesson Plan</p> <p>CEC/B&amp;VI Standard 5</p> <p>The candidate will prepare lesson plans, Prepare and organize materials to implement daily lesson plans, provide strategies for teaching new concepts</p> | <p>Overarching concept of unit plan is unclear or context for unit plan is not adequately described. The scope and sequence of unit plan is incoherent or no rationale for progression of skills is described. Candidate fails to make an explicit connection between literacy and instructional concepts of unit.</p> | <p>Candidate describes the overarching concept that is being developed and the context for the unit plan (prioritized area of the general education curriculum) Candidate describes the overall purpose of the unit plan that is being designed to promote positive learning results in the general curriculum. Candidate describes the integration of literacy skill instruction for the</p> | <p>Candidate describes the overarching concept that is being developed and the context for the unit plan (prioritized area of the general education curriculum). Candidate describes the overall purpose of the unit plan that is being designed to promote positive learning results in the general curriculum. Candidate provides a rationale for the progression of skills (scope and</p> |

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|--|---|--|---|
|  |   | <p>unit plan, which may include narrative or expository materials or vocabulary and comprehension instruction to promote understanding of the content area concepts. Candidate describes strategies for teaching new concepts. Candidate provides instructional strategies considered to individualize instruction for impairment.</p> | <p>sequence) covered in unit and the expected achievement for overall unit. Candidate describes the integration of literacy skill instruction for the unit plan, which may include narrative or expository materials or vocabulary and comprehension instruction to promote understanding of content area concepts, incorporating evidence-based literacy strategies into direct instruction. Candidate describes evidence-based instructional strategies considered to individualize instruction for learner with visual impairment.</p> |
|  | Candidate prepares                                | Candidate prepares   | Candidate prepares  |

|  | <b>Does Not Meet Expectations</b>  | <b>Meets Expectations</b>  | <b>Exceeds Expectations</b>   |
|--|--|--|---|
|  | <b>1</b>   | <b>2</b>   | <b>3</b>  |
| <p>Three Lesson Plans</p> <p>Instructional Planning &amp; Strategies CEC/B&amp;VI Standards 5</p> <p>The candidate prepares lesson plans using evidence-based practices validated for specific characteristics of learners and settings in instructional planning.</p> <p>The candidate uses communication strategies and resources to facilitate understanding of subject matter for individuals with exceptionalities whose primary language is not the dominant language.</p> | <p>incomplete lesson plans for instructional unit and does not include evidence-based teaching methods and strategies appropriate to the needs of learners with visual impairment. Candidate does not prepare lessons which make a clear connection between content area literacy skills and concepts.</p> | <p>comprehensive lesson plans for instructional unit. Candidate includes specific strategies to teach critical lesson content and vocabulary. The procedure includes a description of teaching strategies used to build the content area concepts with a clear connection to literacy skills. Candidate includes explicit instruction in content area literacy, which may include age appropriate narrative and expository texts in accessible format or vocabulary and reading comprehension strategies to promote understanding of text. Candidate clearly and accurately documents:</p> | <p>comprehensive lesson plans for instructional unit. Candidate includes specific evidence-based strategies to teach critical lesson content and vocabulary. The procedure includes a description of evidence-based literacy strategies used to build the content area concepts with a clear connection to literacy skills. Candidate includes explicit instruction in content area literacy, which may include age appropriate narrative and expository texts in accessible format or vocabulary and reading comprehension strategies to promote understanding of text. Candidate clearly and accurately</p> |

|  | <b>Does Not Meet Expectations</b><br><br><b>1</b> | <b>Meets Expectations</b><br><br><b>2</b>   | <b>Exceeds Expectations</b><br><br><b>3</b>   |
|--|---|---|---|
|  |   | <p>1. Measurable lesson plan objective(s)<br/> 2. Lesson plan materials.<br/> 3. Pre-instructional set<br/> 4. Lesson plan method/procedure (task analysis)<br/> 5. Lesson data collection methods<br/> 6. Closure</p> <p>Candidate lists and briefly describes 2- Evidence-based practices validated for specific characteristics of learners and settings and uses APA style references.</p> <p>Candidate develops comprehensive lesson plans that are written with high levels of detail such that a substitute TVI could carry them out.<br/> Candidate</p> | <p>documents:</p> <p>1. Measurable lesson plan objective(s)<br/> 2. Lesson plan materials.<br/> 3. Pre-instructional set<br/> 4. Lesson plan method/procedure (task analysis)<br/> 5. Lesson data collection methods<br/> 6. Closure</p> <p>Candidate lists and briefly describes at least 2 evidence-based strategies, practices validated for specific characteristics of learners and settings and uses APA style references. Each evidence-based practice also contains a clear rationale for incorporating strategy.</p> <p>Candidate develops comprehensive</p> |

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|---|---|--|---|
|   | <b>1</b>  | <b>2</b>   | <b>3</b>  |
|   |   | describes strategies for teaching learner who is a non-native English speaker.   | lesson plans that are written with high levels of detail such that a substitute TVI could carry them out. Candidate includes clear plans for connecting the concepts from one lesson to the next throughout the unit and strategies for integrating student initiated learning (critical thinking, problem solving). Candidate describes strategies for teaching learner who is a non-native English speaker. |
| <p>Assessment Plan for the Unit</p> <p>CEC/B&amp;VI Standard 4</p> <p>The candidate creates and interprets formal and informal assessment methods embedded in the unit.</p> | <p>Candidate does not to embed or interpret formal and informal assessment methods in the unit.</p> <p>Candidate does not demonstrate ability to create and maintain accurate records</p> | <p>Candidate creates a formal assessment, including one test, focusing on literacy and concept development, for the overall unit. Each lesson plan includes informal assessment procedures, including an</p> | <p>Candidate creates a formal assessment, including one test, focusing on literacy and concept development, for the overall unit, connecting the concepts from one lesson to the next throughout the unit and strategies for</p>  |

|   | <b>Does Not Meet Expectations</b>   | <b>Meets Expectations</b>   | <b>Exceeds Expectations</b>   |
|---|---|---|---|
|   | <b>1</b>  | <b>2</b>  | <b>3</b>  |
|   | of student learning.  | assessment form/worksheet for collecting data on student learning to conduct self-evaluation of instruction. Candidate documents ability to create and maintain accurate records of student learning. | integrating student initiated learning (critical thinking, problem solving).<br><br>Each lesson plan includes informal assessment procedures, including an assessment form/worksheet for collecting data on student learning to conduct self-evaluation of instruction. Candidate demonstrates ability to create and maintain accurate records of student learning. |
| Tactile Models, Diagrams, or Drawings<br><br>Instructional Planning & Strategies<br><br>CEC/B&VI Standard 5 | Tactile materials are not well designed or materials used to prepare materials are not appropriate. Tactile materials do not represent the concept/skill being taught in a logical or sequential order. Tactile materials | Tactile materials are well designed. Candidate selected appropriate materials and provided clear rationale for selection of materials, including considerations of the unique characteristics of      | Tactile materials are well designed. Candidate considered: size, scale, density, use of symbols, labels and legend, if appropriate. Candidate selected appropriate materials and provided clear rationale for   |

|   | <b>Does Not Meet Expectations</b>   | <b>Meets Expectations</b>   | <b>Exceeds Expectations</b>   |
|---|---|---|---|
|   | <b>1</b>  | <b>2</b>  | <b>3</b>  |
| The candidate will select and adapt materials in tactile/accessible format. The candidate provides strategies for teaching tactual perceptual skills. | <p>do not accurately represent the concept/skill being taught.</p> <p>Strategies for teaching tactual perceptual skills are not included as needed.</p> | <p>the student with visual impairment. Tactile materials clearly communicate concept/skill taught in a sequential and logical order.</p> <p>Strategies for teaching tactual perceptual skills are included as needed. Tactile materials accurately depict concept/skill and include essential elements.</p> | <p>selection of materials, including considerations of the unique characteristics of the student with visual impairment. Tactile materials clearly communicate concept/skill taught in a sequential and logical order. Tactile materials accurately depict concept/skill and include essential elements, avoiding extraneous information.</p> <p>Strategies for teaching tactual perceptual skills are included as needed and described in depth.</p> |
| <p>Direct Instruction Reflection</p> <p>CEC/B&amp;VI Standard 6</p>   | Candidate does not write a self-evaluation of instruction or does not reflect on the practice to  | Candidate writes a general self-evaluation of instruction and reflects on the practice to   | Candidate provides an in-depth self-evaluation of instruction and reflects on the   |

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|---|--|--|---|
| <p>The candidate will reflect on one's practice to improve instruction and guide professional growth.</p> | <p>improve instruction and guide professional growth.</p> <p>Candidate does not describe specific considerations for improving the lesson unit; or Candidate fails to describe the ease with which the student was able to interpret the tactile materials; or Candidate fails to describe the next steps to promote further understanding of concepts/skills.</p> | <p>improve instruction and guide professional growth.</p> <p>Candidate describes specific considerations for improving the lesson unit. Candidate describes the ease with which the student was able to interpret the tactile materials. Candidate describes the next steps to promote further understanding of concepts/skills.</p> | <p>practice to improve instruction and guide professional growth.</p> <p>Candidate describes specific considerations for improving the lesson unit. Candidate describes the ease with which the student was able to interpret the tactile materials and discusses potential adaptations for improving them. Candidate describes the next steps to promote further understanding of concepts/skills in general education curriculum.</p> |