Virginia Consortium for Teacher Preparation in Vision Impairment

Braille Code —Undergraduate Syllabus
Fall 2011

Wednesdays 4:00pm-6:40pm
Dates: Aug. 31st-Dec. 7th

Host University	**Participating Universities**

George Mason University
Instructor: Holly Lawson
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Office hours: by appointment, before and after class
Email address:
hlawson2@gmu.edu

- GMU – EDSE 412 Section 5S1/6V1
- JMU – EXED 432
- RU – EDSP 655
- NSU – SPE 706
- ODU – SPED 433

COURSE DESCRIPTION: (Co/Pre-req: EDSE 411/511: Characteristics of Students with Visual Impairments)
Provides understanding of the literary code of Braille and its implications for educational/literacy programs for students with a visual disability. Practice experiences enable students to better understand the Braille code and how to teach it to students with a visual disability.

PURPOSE:
This course provides instruction in the development, use, and application of the braille literary code and its implications for educational/literacy programs for students with visual disabilities. Students will develop the skills to read and write contracted and uncontracted braille, while acquiring instructional methodologies for teaching children who are blind to read and write. Sources of braille materials for educational purposes are identified. Delivered online and through synchronous video conferencing.

NATURE OF COURSE DELIVERY:
Learning activities in this class will 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. Study and independent research
4. Application activities, including regular assignments
5. Written responses to posted discussion questions on Blackboard.
6. In-depth study and work on course requirements require outside class time.

LEARNER OUTCOMES:
Upon completion of this course, students will be able to:
- Demonstrate an understanding of the history of the development of Braille.

- Read and write grade one Braille.
- Read and write grade two Braille.
- Discuss methods for teaching Braille reading.
- Discuss methods for teaching Braille writing.
- Describe key factors for determining who should receive Braille instruction.
- Describe key factors for determining appropriate Braille curricula.
- Determine a variety of systems for producing Braille materials.

Additional outcomes include:
- Locate specific braille materials for classroom use.
- Read and write uncontracted literary braille.
- Read and write contracted literary braille.

PROFESSIONAL STANDARDS:

Course's Relationship to Program Goals and Professional Organization

This course is part of the George Mason University, Graduate School of Education (GSE), Special Education Program. This program complies with the standards for special educators established by the Council for Exceptional Children (CEC), the major special education professional organization.

The CEC Standards are listed on the following web site: http://www.cec.sped.org . Look in the second column on the left, and click on "Professional Standards." On this page, to the right, there is a red book pdf document titled "What Every Special Educator Must Know." The CEC Standards are located in this document. The primary CEC standard that will be addressed in this class will be:

<u>Special Education Content Standard #4:</u>   <u>Instructional Strategies</u>

Special educators posses a repertoire of evidence-based **instructional strategies to individualize instruction** for individuals with ELN. Special educators select, adapt, and use these instructional strategies to promote **positive learning results in general and special curricula**[3/] and to appropriately **modify learning environments** for individuals with ELN. They enhance the **learning of critical thinking, problem solving, and performance skills** of individuals with ELN, and increase their self-awareness, self-management, self-control, self-reliance, and self-esteem. Moreover, special educators emphasize the **development, maintenance, and generalization** of knowledge and skills across environments, settings, and the lifespan.

Beginning special educators demonstrate their mastery this standard through the mastery of the CEC Common Core Knowledge and Skills, as well as through the appropriate CEC Specialty Area(s) Knowledge and Skills for which the program is preparing candidates.

This course provides instruction in a fundamental literacy mode (braille) that provides students with visual impairments access to the general education curriculum. An

introduction to methodology for teaching braille reading and writing of school-aged students as well as for special populations such as non-literary readers is included.

Course Delivery: Synchronous, real time using videoconferencing; Students attend class at participating university sites
Instructor: Holly Lawson

Required Textbooks:
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
Wormsley, D. P., & D'Andrea, F. (1997). Instructional Strategies for Braille Literacy - American Foundation for the Blind. New York N.Y.: AFB Press. ISBN: 978-0-89128-936-4.

Required Materials:
- Standard 8.5x11 braille transcribing paper (without tractor-feed). Students may use 11 1/2 x 11 paper IF they have access to a old Perkins writer.
- 4-line 28-cell slate with stylus (eraser), available at APH (http://www.aph.org/), Note: aluminum slate is more durable than plastic one.

Required Articles:
All articles are posted on Blackboard under the lectures. It is expected prior to class meetings that students will have read the materials on Blackboard in addition to the chapters from the book *Instructional Strategies for Braille Literacy*. PowerPoint notes in Word format for the methods lectures will be available on Blackboard under LECTURES.
Additional handouts and resources are also posted on the Blackboard site under the lectures for each week.
Campbell, A. (2011). Sarah's Story: Using the Individualized Meaning-centered Approach to Braille Literacy Education (I-M-ABLE). *Journal of Visual Impairment & Blindness*, 105(3), 138-141.
Cooper, H., & Nichols, S. (2007). Technology and Early Braille Literacy: Using the Mountbatten Pro Brailler in Primary-Grade Classrooms. *Journal of Visual Impairment & Blindness*, *101*(1), 22-31.
Hannan, C. (2006). Review of Research: Neuroscience and the Impact of Brain Plasticity on Braille Reading. *Journal of Visual Impairment & Blindness*, *100*(7), 397-413.
Holbrook, M. (2008). Teaching Reading and Writing to Students with Visual Impairments: Who Is Responsible?. *Journal of Visual Impairment & Blindness*. *102*(4), 203-206.
Lewis, S., & Tolla, J. (2003). Creating and Using Tactile Experience Books for Young Children With Visual Impairments. *Teaching Exceptional Children*, 35(3), 22.
Wright, T., Wormsley, D. P., & Kamei-Hannan, C. (2009). Hand Movements and Braille Reading Efficiency: Data from the Alphabetic Braille and Contracted Braille Study. *Journal of Visual Impairment & Blindness*, 103(10), 649-661.

Wormsley, D. P. (2011). A Theoretical Rationale for Using the Individualized Meaning-centered Approach to Braille Literacy Education with Students Who Have Mild to Moderate Cognitive Disabilities. *Journal of Visual Impairment & Blindness*, 105(3), 145-156.

Recommended Books: (not required)
Koenig, A. J. & Holbrook, M. C. (1993). *Learning media assessment of students with visual impairments*. Austin, TX: 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.
Swenson, A. M. (1999). *Beginning with braille: Firsthand experiences with a balanced approach to literacy*. New York: AFB Press.
Wormsley, D. B. (2004). *Braille literacy: A functional approach*. New York: AFB Press.

Structure of the Course:
The course has two distinct parts. The first is mastery of the literary braille code and the rules governing its use and the second is the methods component of the course. Students have the option of testing out of the first part of the course and doing a project to earn up to 60 points toward the final grade. Please see page 10 of this syllabus for specific information on how to "test out" of the literary braille code part of the course.

Learning braille is a time intensive process. You are expected to work on your braille daily. You will have 10 homework assignments due from the material in the *New Programmed Instruction in Braille* book. You will submit your assignments at the beginning of class OR mail them to Dr. Lawson the dates outlined below. Even if you are absent it is your responsibility to have your assignments postmarked or delivered by the required date. You will lose points for assignments that are not submitted when required. PowerPoint Notes (in PDF file format) for the braille code lectures will be available on Blackboard under CONTENT.

Date	Literary Braille Code	Methods	Readings
Aug .31	How to use the braille writer, Chapters 1 & 2	History of Braille	W & D Ch. 1
Sept. 7	Chapter 3	Agencies and Resources	
Sept. 14	Chapter 4	Tactile Perception	W & D Ch. 2 Wright, Wormsley & Kamei-Hannan, 2009
Sept. 21	Review Week	Pre-Braille and Emergent Literacy	W & D Ch. 3 Lewis, & Tolla, 2003
Sept. 28	Chapter 5	Beginning Braille Literacy Using a Functional Approach	W & D Ch. 5 Wormsley, 2011 Campbell, 2011
Oct. 5	Chapter 6	Beginning Braille Literacy Using a Functional Approach Braille Assessment	
Oct.12	Chapter 7	Teaching Reading Through Braille (Methods & Curricula)	W & D Ch. 7 Holbrook, 2008
Oct. 19	Review Week	Technology Overview	W & D Ch. 8 Cooper & Nichols, 2007
Oct. 26	Chapter 8	Braille for Second Language Learners	W & D Ch. 6
Nov. 2	Chapter 9	Slate and Stylus	
Nov. 9	Chapter 10	Slate & Stylus Practice Braille for Adults	W & D Ch. 4 Kamei Hannan, 2006 **Written exam due**
Nov. 16	Review Week	Braille Users Panel	
Nov. 23	Review Week		
Nov. 30	Practice Test Final Projects Presentations		
Dec. 1-6	**Code Test / Individually scheduled Proficiency Test**		
Dec. 7.	**On-line braille code exam**		

Course Requirements:

1. **Homework**: (60 points) Ten homework assignments valued at 6 points each are required for the course. Their schedule due dates are indicated below. Points are assigned as follows:

0, 1, 2 errors	6 points
3, 4 errors	5 points
5, 6 errors	4 points
7, 8 errors	3 points
9, 10 errors	2 points
11, 12 errors	1 point
13 or more errors	no credit for assignment

There will be no opportunities to resubmit homework. **All students must turn in all homework and earn at least 2 points on each in order to receive a passing grade in the course**.

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.

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 a**nd 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
> Virginia Consortium for Teacher Preparation in Vision Impairment
> College of Education and Human Development
> George Mason University
> 4400 University Drive, MS 1F2
> Fairfax, Virginia 22030

Due Dates for Braille Code Assignments:

DATE	HOMEWORK (Postmarked or Delivered to Grader)	Description of Homework
September 12	Homework 1 (Chs. 1 & 2)	Self Test p. 10 & Self Test p. 27
September 19	Homework 2 (Ch. 3)	Exercise 3.5.5 p. 48
September 26	Homework 3 (Ch. 4)	Self-Test p. 86
October 3	Homework 4 (Ch. 5)	Self-Test p. 110
October 10	Homework 5 (Ch. 6)	TBD

October 17	Homework 6 (Ch. 7)	TBD
October 24	Homework 7 (Ch. 8)	TBD
October 31	Homework 8 (Ch. 9)	TBD
November 17	Homework 9	Selected passage from book or magazine
December 1*	Homework 10 (Ch. 10)	TBD

Late Assignments: Up to 3 points will be subtracted for each homework assignment which is turned in after the due date. No points will be awarded for a homework turned in more than 2 weeks late (i.e. 6 points will be subtracted). Points will be subtracted for late assignments as follows:

> 1 point = 1 to 72 hours late (0 to 3 days)
> 2 points = 73 to 144 hours late (3 to 6 days)
> 3 points = 145 or more days late (7 days to 14 days)
> 6 points = more than 14 days late (2 weeks)

You must complete every homework assignment with 10 or fewer errors in order to earn a passing grade in the course. This is regardless of how many points you can earn for the assignment based on how late it is submitted.

2. **Braille Drills:** (30 points) In addition to preparing homework assignments using the Perkins braille writer, you will also complete homework using 6-key entry on the computer. Each drill is comprised of 15 probes and generally takes no more than an hour to complete. You can start and stop a drill so you do not have to complete an entire drill in one sitting. You must get 100% on each section before moving on to another section. Drills can be accessed at:

   www.nercve.org/brailler

   User email: your university e-mail
   Initial password: braille

   - You will be prompted to customize your password on first login.
   - A presentation showing how to use the online brailler can be viewed at:
     http://media.umb.edu/nb
   - Use the "SDF" "JKL" keys on your computer's keyboard to braille.

Due Dates for Drill Assignments:

DATE	APIB Chapter	Drills
September 7	Chapters 1 & 2	Lessons 1 & 2
September 14	Chapter 3	Lesson 3
September 21	Chapter 4	Lesson 4
October 5	Chapter 5	Lesson 5
October 12	Chapter 6	Lesson 6

October 19	Chapter 7	Lesson 7
November 2	Chapter 8	Lesson 8
November 9	Chapter 9	Lesson 9
November 16	Chapter 10	Lesson 10

3. **Written Exam on Lecture Content:** (50 points) The written exam on the lecture content will be provided to you on October 19 via Blackboard. This is a take home exam and will be due on **November 9, 2011 at 4 PM.** The exam is to be submitted via the Blackboard. Five points per day will be subtracted for late exams. **NO EXCEPTIONS TO THIS!**

4. **Final Exam:** (Proficiency Test): (30 points) At the end of the course, each student must put in braille one page of literary material with 10 or fewer errors using only a contraction sheet provided by the instructor and a print dictionary to check syllabication. You may schedule to take the test after December 1, 2011. You must take it for the first time (and hopefully only time) by December 6. *All retests must be completed by December 14, 2011*

EXAMPLE: Sharon makes 4 errors the first time she takes the test. Her score is 26 out of 30. Ron makes 11 errors the first time he takes the test. He must retake it. On the second attempt, he makes 5 errors. He receives a score of 25 on the second attempt, with one additional point subtracted because it is a second try. His score is 24 out of 30.

5. **Braille Code Exam** (25 points) Students will complete a 50 item multiple-choice test designed to test their knowledge of the literary braille code. The exam will be administered on **December 7, 2011** and be posted on Blackboard.

6. **Participation:** (30 points) Up to 30 points will be earned by students for participation. Points will be earned through the completion of in class activities, interactions with panels and with guests. Students are expected to attend class sessions, be focused and respectful of others.

7. **Extra Credit:** You have 3 options for extra credit this year, each will earn you up to 5 points. **Extra credit must be submitted by December 7th, 2011**.

   a. Make a deck of braille playing cards. A quarter point will be subtracted for each error.

   b. Select a magazine or newspaper article and transcribe it into braille. You must turn in the first **2 braille pages**. Submit the print article and your 2 pages of braille. You may not do this assignment until we have covered the material in Lesson 8. A quarter point will be subtracted for each error. Please mark on the top of the page which lessons we have covered at the time of your brailling (e.g., 1-8, 1-10) so I only count off for contractions covered to that date.

    c. Develop a set of flashcards for practicing your braille. Based on the accuracy and completeness of your flashcard set you'll earn up to 5 points.

Attendance Policy

Attendance **(30 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 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 me to let me know if you will not be in class.

Grading

Assignments	Points
Homework	60
Braille Drills	30
Written Exam on Lecture Content	50
Final Exam (Proficiency Test)	30
Braille Code Exam	25
Class Participation	30
Total	**225**

A = 95-100%
A- = 90-94%
B+ = 87-89%
B = 84-86%
B- = 80-83%
C+ = 77-79%
C = 74-76%
C- = 70-73%
D = 60-69%
<60% = F

Testing Out of the Braille Code:

Individuals who are braille readers or who have had previous training in the braille literary code have the option of testing out of the braille code requirements of the course (10 homeworks valued at 60 points). In order to test out of the braille code part of the course the individual must do the following:

Take the proficiency test (final exam) on August 31, 2011. Obtain a grade of 25 or higher on the braille proficiency exam. A grade of 24 or lower necessitates you taking the code part of the course with the other students.

Once you "test out" of the code part of the course you must…
1. Develop an alternative project to be completed and turned in no later than November 30, 2011.
2. Turn in a one page proposal of what your project will be **no later than September 14, 2011** for instructor approval.
3. Meet with Dr. Lawson if necessary to finalize your proposal / have it approved.

Some possible ideas…..
   a. Volunteer to teach braille to an adult. Keep **detailed** records of the individual's progress, samples of materials you develop, sample of work done by the student, data sheets etc. Write a 4 to 6 page paper summarizing your experience and the student's progress. (This is not an acceptable assignment if you routinely teach braille to adults as part of your paid employment).

   b. Write a 12 to 15 page research paper in APA style on a topic related to braille literacy, instructional strategies etc.

   c. Develop a comprehensive resource notebook (containing materials from a **variety** of sources) and write a paper describing how you will use the notebook in your own teaching.

   d. Develop a comprehensive assessment instrument related to some aspect of braille instruction and assess a child or adult with your instrument. Alternatively you may use an instrument shared in class. Administer the instrument to a braille reader. Generate a report on the individual's strengths and needs as measured by the instrument. (This is not an acceptable assignment if you routinely assess individual's braille skills as part of your paid employment.).

   e. Develop and administer a survey related to some aspect of braille instruction for consumers, families, or professionals. (If you select this option you cannot complete Project Option D.) You must have a minimum of 15 people complete your survey. Write a paper detailing your study findings including a section in which you review relevant literature, a methods section, a results section, and a discussion of your findings.

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.

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. All of these materials should be regarded as authored materials, which if used or referred to must be fully credited through reference to the author, the class, and date. If used beyond citation, permission of the instructor/author is required.

TECHNOLOGY PROFICIENCIES AND BLACKBOARD
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

NON GMU Students: Your login for Blackboard Community is: x_first name.last name For example John Smith's username would be: x_john.smith Your password is: bbcommunity

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

TASKSTREAM SUBMISSION
TaskStream (www.taskstream.com) is an electronic portfolio and assessment management tool that the VI Consortium is utilizing in part to meet accreditation requirements for the National Council of Accreditation of Teacher Education (NCATE) as well as for student portfolio evaluation purposes. EVERY student taking this course at EVERY university IS REQUIRED to upload and submit the signature assignment for this course to TaskStream for evaluation by the end of the semester. Directions for creating an account in TaskStream and submitting assignments are available on Blackboard in the TaskStream folder within the Syllabus section.

The **signature assignment**(s) for this class is: **Written Exam on Lecture Content**

Note: Please submit these items together as <u>ONE</u> pdf file into Taskstream.

BLACKBOARD ASSISTANCE
This course requires that you be a regular email user and be able to use various features of Blackboard (sign on, download materials, hand in completed assignments

electronically in the drop box). You may direct your questions about Blackboard to the facilitator at the class site as well as to email Holly Lawson (hlawson2@gmu.edu). You will want to download all the required materials early in the semester or as soon as they are posted. Please note that some handouts/readings may be given to you in class that are not posted on blackboard. Also check Blackboard for announcements. Sometimes I will place handouts for class on Blackboard and will alert you by email or in the previous class; in these cases please download and bring them to class.

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 (new website) for fall courses.
- If students access Blackboard through http://gmucommunity.blackboard.com (old website) they will see only content from spring and summer. DO NOT use this website to access Blackboard.
- When accessing Blackboard through http://mymason.gmu.edu students will also have access to previous courses.
- Students will use the same login they have used for spring and summer courses.
- When students login to http://mymason.gmu.edu, select the "Organizations" tab to access their classes.
- Students will notice a slightly different look to the new Blackboard system, but everything should function the same.

GMU STUDENTS ONLY:
COLLEGE OF EDUCATION AND HUMAN DEVELOPMENT

Student Expectations
- Students must adhere to the guidelines of the George Mason University Honor Code [See http://academicintegrity.gmu.edu/honorcode/].
- 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/].
- Students must follow the university policy for Responsible Use of Computing [See http://universitypolicy.gmu.edu/1301gen.html].
- 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.
- Students must follow the university policy stating that all sound emitting devices shall be turned off during class unless otherwise authorized by the instructor.
- Students are expected to exhibit professional behaviors and dispositions at all times.

Campus Resources

- 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 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/].