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

Fall 2016

EDAT 422 DL1: Assistive Technology for Individuals with Sensory Impairments

CRN: 74563, 3 - Credits

Instructor: Dr. Kristine Neuber	**Meeting Dates:** 08/29/16 - 12/20/16
Phone: 703-217-5517	**Meeting Day(s):** Asynchronous
E-Mail: kneuber@gmu.edu	**Meeting Time(s):** Asynchronous
Office Hours: By Appointment	**Meeting Location:** NET

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

Instructional Method

EDAT 422 is an asynchronous course. Using Blackboard, students are expected to complete assignments weekly and be engaged in course activities throughout the semester.

Course Description

Provides an overview of specific technology and resources available to enhance and improve the ability of individuals who are visually impaired/blind or hearing-impaired/deaf. Field experience may be required.

Equivalent to EDIT 412 (2012-2013 Catalog)

Schedule Type: LEC

Hours of Lecture or Seminar per week: 3

Hours of Lab or Studio per week: 0

Prerequisite(s): None

Co-requisite(s): None

Advising Contact Information

Please make sure that you are being advised on a regular basis as to your status and progress through your program. Mason M.Ed. and Certificate students should contact the Special

Education Advising Office at (703) 993-3670 for assistance. All other students should refer to their faculty advisor.

Nature of Course Delivery
Learning activities include the following:
1. Class lecture and discussion
2. Application activities
3. Video and other media supports
4. Research and presentation activities
5. Electronic supplements and activities via Blackboard

DELIVERY METHOD:
This course will be delivered online using an **asynchronous** format via the Blackboard learning management system (LMS) housed in the MyMason portal. You will log in to the Blackboard course site using your Mason email name (everything before "@masonlive.gmu.edu) and email password. The course site will be available on August 30, 2016.

TECHNICAL REQUIREMENTS:
To participate in this course, students will need the following resources:
- High-speed Internet access with a standard up-to-date browser, either Internet Explorer or Mozilla Firefox. Opera and Safari are not compatible with Blackboard;
- Consistent and reliable access to their GMU email and Blackboard, as these are the official methods of communication for this course
- 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 the course requirements.
- The following software plug-ins for Pcs and Macs respectively, available for free downloading by clicking on the link next to each plug-in:
  - Adobe Acrobat Reader: http://get.adobe.com/reader/
  - Windows Media Player: http://windows.microsoft.com/en-US/windows/downloads/windows-media-player
  - Apple QuickTime Player: www.apple.com/quicktime/download/
- A headset microphone for use with the Blackboard Collaborate web conferencing tool

EXPECTATIONS:
- ➢ **Course Week: Asynchronous:** Because online courses do not have a "fixed" meeting day, our week will **start** on **Tuesday** and **finish** on **Monday**.
- ➢ **Log-in Frequency**:
- ➢ Students must actively check the course Blackboard site and their GMU email for communications from the instructor, at a minimum this should be 2 times per week.

- **Participation**: Students are expected to actively engage in all course activities throughout the semester, which include viewing of 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 are expected to seek assistance if they are struggling with technical components of the course. Contact ITU (http://itservices.gmu.edu/help.cfm) at (703) 993-8870 or support@gmu.edu.
- **Technical Issues**: Students should expect that they could experience some technical difficulties at some point in the semester and should, therefore, budget their time accordingly. Late work will not be accepted based on individual technical issues.
- **Workload**: Expect to log in to this course **at least two times a week** to read announcements, participate in the discussions, and work on course materials. Remember, this course is **not** self-paced. There are **specific deadlines** and **due dates** listed in the **CLASS SCHEDULE** section of this syllabus to which you are expected to adhere. It is the student's responsibility to keep track of the weekly course schedule of topics, readings, activities and assignments due.

Netiquette: Our goal is to be **collaborative**, not combative. Experience shows that even an innocent remark in the online environment can be misconstrued. I suggest that you always re-read your responses carefully before you post them to encourage others from taking them as personal attacks. **Be positive in your approach to others and diplomatic with your words.** I will do the same. Remember, you are not competing with each other but sharing information and learning from one another as well as from the instructor.

Field Experience Requirement
A Field Experience may be a part of this course. A field experience is a variety of early and ongoing field-based opportunities in which candidates may observe, assist, tutor, and/or conduct research. Field experiences may occur in off-campus settings, such as schools (NCATE, 2008). Below are REQUIRED PROCEDURES FOR ALL STUDENTS ENROLLED IN THIS COURSE

1. Prior to representing George Mason in off-campus settings, visit this site: http://cehd.gmu.edu/teacher/internships-field-experience. The site has a comprehensive PowerPoint on the registration process and tips for a successful field experience. This is called the Field Experience Presentation. View this.

2. Complete the online field experience registration form [https://cehd.gmu.edu/endorse/ferf] at the beginning of the semester (if not before) and complete the information requested REGARDLESS if you need assistance in 'finding' an individual for the project/assignment or

not. This information is required by the state. It is important that you do this within the first two classes so that the Clinical Practice Office has sufficient time to find a placement for you.

Please indicate how your placement will be arranged.*

I will need George Mason (Clinical Practice Specialist) to arrange a placement for my field experiences (including observations and/or case studies).

I have been assigned a placement by my program for my field experiences (including observations and/or case studies).

I will arrange my own field experience (observations and/or case studies) because I am a full-time contracted school system employee and will complete field experience at my workplace.

I will arrange my own field experiences (observations and/or case studies) because I am conducting a case study or individualized child portfolio with an individual outside of the school system (Special Education, Assistive Technology, Early Childhood Special Education, Early Childhood Education PK-3, Dual Licensure Early Childhood Education PK-3 and Early Childhood Special Education only).

Fields marked with * are required. Your preferences may not be guaranteed.

NOTE: When selecting options of "I will arrange my own…" you will be asked to specify further, and/or identify the region and/or school of your arrangement. You will also be asked to obtain permission from a school principal or school administrator. Students should keep this documentation.

I understand that I must obtain permission from my principal/school administrator.

NOTE: It is not recommended that you work with your own child.

NOTE: If you selected the last option above, an email from the host teacher and the administrator is required to be sent to cuanseru@gmu.edu. The email serves as documentation of the approval. The administrators must approve all visitors in their school.

Learner Outcomes
Upon completion of this course, students will be able to:
1. Define the issues and/or cultural perspectives and background related to the hearing impaired/deaf and visually impaired/blind populations as they relate to technology.
2. Identify environmental issues related to access for individuals who have vision or hearing impairments.
3. Locate resources available for hearing impaired/deaf and visually impaired/blind populations.

4. Compare the range of technology available for individuals with sensory impairments.
5. Conduct a customized training of how to use one piece of hardware or one piece of software technology designed for individuals with a sensory impairment, their family, or a professional who works with individuals.

Required Textbooks

Presley, I., & D'Andrea, F. (2009). In *Assistive Technology for Students Who Are Blind or*

   Visually Impaired. New York: AFB Press.

This book can also be rented at:

http://www.afb.org/store/Pages/ShoppingCart/ProductDetails.aspx?ProductId=978-0-89128-890-9

Also available at Amazon.com

Course Relationships to Program Goals and Professional Organizations

This course is part of the George Mason University, Graduate School of Education (GSE), Assistive Technology Program. The Assistive Technology Program has developed program specific standards in accordance with NCATE requirements. The Assistive Technology Program Standards incorporate several elements within the professional standards from the Council for Exceptional Children (CEC), while also expanding upon them to meet the specific needs related assistive technology. The primary AT Program standards that will be addressed in this class include the following: Standard 2: Knowledge and Skills and Standard 4: Practical Experience *NOTE: NCATE Assessments (in many but not all courses) may address additional AT Program standards.

GMU Policies and Resources for Students:

a. Students must adhere to the guidelines of the George Mason University Honor Code [See http://oai.gmu.edu/the-mason-honor-code/].

b. Students must follow the university policy for Responsible Use of Computing [See http://universitypolicy.gmu.edu/policies/responsible-use-of-computing/].

c. Students are responsible for the content of university communications sent to their George Mason University email account and are required to activate their account and check it regularly. All communication from the university, college, school, and program will be sent to students solely through their Mason email account.

d. The George Mason University Counseling and Psychological Services (CAPS) staff consists of professional counseling and clinical psychologists, social workers, and counselors who offer a wide range of services (e.g., individual and group counseling, workshops and outreach programs) to enhance students' personal experience and academic performance [See http://caps.gmu.edu/].

e. Students with disabilities who seek accommodations in a course must be registered with George Mason University Disability Services and inform their instructor, in writing, as soon as possible. Approved accommodations will begin at the time the written letter from Disability Services is received by the instructor. [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/]

Course Policies & Expectations
        Attendance Students must login each week at least 2 times during the module time period in order to complete collaborative activities within the module. Due dates for all activities will be noted..

        Late Work will be given a 10% cost reduction per day following the due date. (For example, a 10-point assignment will lose 1 point per day while a 30-point assignment will lose 3 points per day.) At the instructor's discretion, students may be given the opportunity to resubmit an assignment however they are not eligible for full credit. Some activities within modules will be time sensitive and therefore cannot be submitted late - these activities will be noted.

Tk20 Performance-Based Assessment Submission Requirement
Every student registered for any Special Education course with a required performance-based assessment is required to submit the *Sensory Device Instruction Project* to Tk20 through Blackboard (regardless of whether the student is taking the course as an elective, a onetime course or as part of an undergraduate minor). Evaluation of the performance-based assessment by the course instructor will also be completed in Tk20 through Blackboard. Failure to submit

the assessment to Tk20 (through Blackboard) will result in the course instructor reporting the course grade as Incomplete (IN). Unless the IN grade is changed upon completion of the required Tk20 submission, the IN will convert to an F nine weeks into the following semester.

Grading Scale

Grade	Percentage
A	95-100 %
A-	90 – 94
B+	87-89
B	83 – 86
B-	80 – 82
C+	77 – 79
C	74 – 76
C-	70 – 73
D	60 – 69
F	< 60

Assignments

Performance-based Assessment (Tk20 submission required).

Students are required to create an instructional plan for training the use of a device used designed for individuals who have sensory impairments. The purpose of the plan is to introduce the use of this device to a potential user (i.e., individual with sensory impairment, their parent or other family member, or a professional working with an individual with a sensory impairment). The designated sensory device may be either approved through a selection process or specifically assigned by the instructor. This plan itself should be submitted as a text document and include the following:

a. **Device Overview**
   Student provides a description of the sensory device. The description should include the purpose of the device, its features, and its vendor/contact information.

b. **User Characteristics & Needs**
   Student provides a rationale for selecting the user/individual(s) for which they are designing the training. A listing of the user's prerequisite skills as well as the needs they have for potentially using the device will be outlined. Consideration of diverse needs of both the user in training as well as those that make be affected by the training should be addressed.

c. **Customized Training**
   Student designs a training plan customized specifically for the user that is to be trained. The plan should include: *goal(s)* of the 1 hour training, *objectives* for each section or topic being trained and allocated *timeframe* for each, a listing of training *materials*,

procedural steps for the training that integrate *evidence-based strategies* and *data* collection, and additional *resources* for the user to take with them following the training.

d. Demonstration
Student records a 2-3 minute video documenting a portion of the training that shows the Student demonstrating the use of the sensory device. The video will accompany the Instructional Plan write-up as evidence the student has proficiency in device use.

e. Reflection
Student provides a reflection on the implementation of the sensory device training from both the Student/instructor and the user/student perspective. The reflection will also include a listing of what would be done differently if the training were repeated, what steps should be taken if additional training was needed and what potential professional development needs that the Student/trainer might require to provide additional training.

f. Community Impact
Student discusses the potential impact their device training could have on individuals with sensory impairments, their families, and communities across environments, settings and life span.

Performance-based Common Assignments (No Tk20 submission required).
There are no common assignments in this course.

Other Assignments.
Weekly Learning Module Activities (50 Points) – See Learning Modules for weekly Due Dates

Students must access online class on Blackboard weekly and complete posted activities for all learning modules. Learning modules are divided into instructional lessons and lab activities. Lesson and lab activities may include PowerPoint presentations of content; Internet searches/research assignments, video exploration and viewing, community exploration, response tasks and construction activities. All activities are due by the end of the module period listed in the proposed course schedule, unless otherwise specified in the learning module instructions. Each learning module will be worth 4 points for a total of 48 points (12 modules x 4 points = 48 Points) - The Final Module is worth 2 Points for a total of 50 Points).

Assistive Technology Assessment Report (20 Points) – Due Oct 31st
Students are required to write an AT assessment report for individuals who has a sensory impairment. The assessment will be based on an individual the student is currently

working with or a case study provided by the instructor. Assessment templates will be provided on blackboard. Specific areas to be covered in the report include:

- Background Information
- Purpose of the assessment
- Recommendations in the following areas:
    - Assistive technology devices and software,
    - Instructional strategies and
    - Environmental Considerations

Schedule

Module	Topic(s)	Readings & Assignments
Module 1 Aug. 30– Sept. 5	Course Orientation & VI and HI Characteristics	**Reading:** Materials included in Module. **Assignment:** Weekly Online Module Activities Posted on Blackboard
Module 2: Sept. 6 – Sept. 12	Assistive Technology for Daily Living Resources for VI & HI	**Readings:** Chapter 1 pp. 6 - 11 (Presley & D'Andrea, 2009) **Assignment:** Weekly Online Module Activities Posted on Blackboard
Module 3: Sept. 13 - Sept. 19	Technology for Communication (Deaf & Hard for Hearing)	**Readings:** Assistive Technology for Students who are Deaf or Hard of Hearing **(Chapter 13)** from Assessing Students' Needs for Assistive Technology (ASNAT) 5th Edition – available online http://sped.dpi.wi.gov/sped_at-wati-asnat **Assignment:** Weekly Online Module Activities Posted on Blackboard
Module 4: Sept. 20 - Sept. 26	Accessing Print Information – Visually - Non-optical and optical devices - Video Magnification Systems - Scanning with OCR	**Reading:** Chapter 2 pp. 24-56 Presley & Chapter 5 pp. 147 – 15. D'Andrea, 2009) **Assignment:** Weekly Online Module Activities Posted on Blackboard
Module 5: Sept. 27– Oct. 3	Accessing Electronic Information Visually - Screen Magnification - Cursor Enhancements	**Readings:** Chapter 2 pp. 79-98 (Presley & D'Andrea, 2009) **Assignment:** Weekly Online Module Activities Posted on Blackboard

Module	Topic(s)	Readings & Assignments
Module 6: Oct. 4- Oct. 10	Assessment Process: • Completing an AT Assessment • Writing Recommendations	**Readings:** Chapter 6 pp. 173-197 & Chapter 8 pp. 316 - 334 (Presley & D'Andrea, 2009) Review Chapter 7 - Look through assessment checklists **Assignment:** Weekly Online Module Activities Posted on Blackboard
Module 7: Oct. 11 - Oct. 17	Accessing Print and Electronic Textbooks Auditorily • Readers • Audio Recordings • Digital Audio Formats • Reading Machines	**Readings:** Chapter 2. pp 61 - 72 (Presley & D'Andrea, 2009) Chapter 5 pp. 145 – 147 & 165 – 169. **Assignment:** Weekly Online Module Activities Posted on Blackboard
Module 8: Oct. 18 – Oct. 24	Accessing Electronic Information Auditorily – • Screen Reading • Document Reading	**Readings:** Chapter 3 pp. 104-119 (Presley & D'Andrea, 2009) **Assignment:** Weekly Online Module Activities Posted on Blackboard
Module 9: Oct 25 – Oct. 31	Accessing Print and Electronic Information – Tactilely • Braille • Braille Writing Tools • Refreshable Braille • Tactile Graphics •	**Readings:** Chapter 2 pp. 56 – 61 & Chapter 3 pp. 100 – 104; Chapter 4 pp. 132 – 141; Chapter 5 pp. 153 – 155. (Presley & D'Andrea, 2009) **Assignments:** Weekly Online Module Activities Posted on Blackboard <mark>*Assessment Report Due Oct. 31</mark>
Module 10: Nov 1 - Nov. 7	Producing Electronic Files • Electronic Writing Tools • Keyboarding • Managing Electronic Files Final Project Requirements.	**Readings:** Chapter 4 pp. 120 – 132 & 141 - 144 (Presley & D'Andrea, 2009) **Assignment:** Weekly Online Module Activities Posted on Blackboard
Module 11: Nov. 8 - Nov. 14	Training on Technology Strategies & Best Practices Review of Tools for Recording Final Presentation	**Readings:** Materials included in Module. **Assignment**: Weekly Online Module Activities Posted on Blackboard
Module 12: Nov.15- Nov. 21* Nov. 22 – Nov. 28 Thanksgiving Break	Outlining A Technology Lesson Plan Determining the best strategies Providing Supports	**Readings:** Materials included in Module **Assignment:** Weekly Online Module Activities Posted on Blackboard

Module	Topic(s)	Readings & Assignments
Module 13: Nov. 29 – Dec 5	Review of Final Project Submission Requirements. Work on Final Project	**Readings:** Materials Provided in Module **Assignment:** *Submit Final Project Instructional Plan Due December 5