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

Fall 2020
EDAT 422 DL1: Assistive Technology for Individuals with Sensory Impairments
CRN: 72167, 3 – Credits

Instructor: Dr. Margaret Fields	**Meeting Dates:** 8/24/20 – 12/5/20
Phone: 804-317-9691	**Meeting Day(s):** Asynchronous
E-Mail: mfield6@gmu.edu	**Meeting Time(s):** Asynchronous
Office Hours: Phone meeting by appt.	**Meeting Location:** Online
Office Location: NET	**Other Phone:** N/A

- **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.**

Prerequisite(s):
None

Co-requisite(s):
None

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.

Advising Contact Information
Please make sure that you are being advised on a regular basis as to your status and progress in your program. Students in Special Education and Assistive Technology programs can contact the Special Education Advising Office at 703-993-3670 or speced@gmu.edu for assistance. All other students should refer to their assigned program advisor or the Mason Care Network (703-993-2470).

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

Course Delivery Method

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

This course will be delivered online (76% or more) using asynchronous format via the 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 August 24, 2020.

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 standard up-to-date browsers. To get a list of Blackboard's supported browsers see: Browser support (https://help.blackboard.com/Learn/Student/Getting_Started/Browser_Support#supported-browsers)

  To get a list of supported operation systems on different devices see: Tested devices and operating systems (https://help.blackboard.com/Learn/Student/Getting_Started/Browser_Support#tested-devices-and-operating-systems)

- 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 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://support.microsoft.com/en-us/help/14209/get-windows-media-player)

- Apple Quick Time Player (www.apple.com/quicktime/download/)

Expectations

- Course Week:
  Because asynchronous courses do not have a "fixed" meeting day, our week will start on Monday and finish on Sunday. 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 2 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.

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.

Professional Standards

This course is part of the George Mason University, School of Education, 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 to 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.

Required Texts

Siu, Y-T. & Presley, I. (2020). *Access Technology for Blind and Low Vision Accessibility* (2nd ed.). Louisville, KY: APH Press.

Recommended Texts

American Psychological Association. (2020). *Publication manual of the American Psychological Association* (7th ed.). https://doi.org/10.1037/0000165-000

Course Performance Evaluation

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

Assignments and/or Examinations

Sensory Device Instruction Project (30 Pts.) – Due November 30

Students are required to create an instructional plan (Sensory Device Instruction Project) 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.

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 October 25

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

Course Policies and Expectations

Attendance/Participation

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.

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.

Late Work

Late assignments 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.

Grading Scale

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

***Note:** The George Mason University Honor Code will be strictly enforced. See Academic Integrity Site (https://oai.gmu.edu/) and Honor Code and System (https://catalog.gmu.edu/policies/honor-code-system/). Students are responsible for reading and understanding the Code. "To promote a stronger sense of mutual responsibility, respect, trust, and fairness among all members of the George Mason University community and with the desire for greater academic and personal achievement, we, the student members of the university community, have set forth this honor code: Student members of the George Mason University community pledge not to cheat, plagiarize, steal, or lie in matters related to academic work." Work submitted must be your own new, original work for this course or with proper citations.

Professional Dispositions

Students are expected to exhibit professional behaviors and dispositions at all times. See Policies and Procedures (https://cehd.gmu.edu/students/polices-procedures/).

Class Schedule

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

Module	Topic(s)	Readings & Assignments
Module 1 Aug. 24 – Aug. 30	Course Orientation & VI and HI Characteristics	**Readings:** Chapter 1 (pp. 15-34) Chapter 7 (pp. 243-253) Appendix B Form (pp. 359-374) (Siu & Presley 2020) **Assignment:** Weekly Online Module Activities Posted on Blackboard

Module	Topic(s)	Readings & Assignments
Module 2: Aug. 31 – Sept. 6	Assistive Technology for Daily Living Resources for VI & HI	**Readings:** Materials provided in Module **Assignment:** Weekly Online Module Activities Posted on Blackboard
Module 3: Sept. 7 - Sept. 13	Technology for Communication (Deaf & Hard of 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. 14 - Sept. 20	Accessing Print Information – Visually • Non-optical and optical devices • Video Magnification Systems • Scanning with OCR	**Readings:** Chapter 2 (pp. 35-67) (Siu & Presley 2020) **Assignment:** Weekly Online Module Activities Posted on Blackboard
Module 5: Sept. 21– Sept. 27	Accessing Electronic Information Visually • Screen Magnification • Built-in Accessibility	**Readings:** Chapter 2 (pp. 100-107) (Siu & Presley 2020) **Assignment:** Weekly Online Module Activities Posted on Blackboard
Module 6: Sept. 28 - Oct. 4	Accessing Print Materials and Electronic Textbooks Auditorily • Readers • Audio Recordings • Digital Audio Formats • Reading Devices	**Readings:** Chapter 2 (pp. 72-86) Chapter 5 (pp. 167-204) Chapter 6 (pp. 205-238) (Siu & Presley 2020) **Assignment:** Weekly Online Module Activities Posted on Blackboard
Module 7: Oct. 5 - Oct. 11	Understanding an Assessment Process and Submitting Your Assessment Report Draft	**Readings:** Chapter 2 (pp 61 – 72) Chapter 7 (pp. 243-255) Chapter 8 (pp. 257-281) (Siu & Presley 2020) **Assignment:** Weekly Online Module Activities Posted on Blackboard
Module 8: Oct. 12 – Oct. 18	Accessing Electronic Information Auditorily and Tactually Producing Written Communication	**Readings:** Chapter 3 (pp. 108-115, 115-131) Chapter 4 (pp. 133-166) (Siu & Presley 2020)

Module	Topic(s)	Readings & Assignments
		Assignment: Weekly Online Module Activities Posted on Blackboard
Module 9: Oct 19 – Oct. 25	Accessing Electronic Information (Screen Reading) AT Assessment Report due Oct 25th	**Readings:** Materials provided in Module **Assignments:** Weekly Online Module Activities Posted on Blackboard AT Assessment Report due Oct 25th
Module 10: Oct 26 - Nov. 1	Strategies and Best Teaching Practices	**Readings:** Materials provided in Module **Assignment:** Weekly Online Module Activities Posted on Blackboard
Module 11: Nov. 2 - Nov. 8	Preparing a Technology Lesson Plan	**Readings:** Materials provided in Module **Assignment**: Weekly Online Module Activities Posted on Blackboard
Module 12: Nov. 9 - Nov. 15	Updates on Accessibility/Completing Your Paper Review of Final Project Submission	**Readings:** Materials provided in Module **Assignment:** Weekly Online Module Activities Posted on Blackboard
Module 13: Nov. 16 – Dec 5 Nov. 26-Nov. 29 Thanksgiving Break	Final Week of Class Resources/Instruction on Submissions Individual appointments as requested Continue work on Final Project Final Project due Nov 30th	**Readings:** Materials Provided in Module **Assignment:** Submit Final Project Instructional Plan Due Nov 30th

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: See Core Values (http://cehd.gmu.edu/values/).

GMU Policies and Resources for Students

Policies

- Students must adhere to the guidelines of the Mason Honor Code. See Honor Code and System (https://catalog.gmu.edu/policies/honor-code-system/).

- Students must follow the university policy for Responsible Use of Computing. See Responsible Use of Computing (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. Approved accommodations will begin at the time the written letter from Disability Services is received by the instructor. See Disability Services (https://ds.gmu.edu/).

- Students must silence all sound emitting devices during class unless otherwise authorized by the instructor.

Campus Resources

- Support for submission of assignments to VIA should be directed to VIA Help support@watermarkinsights.com. Questions or concerns regarding use of Blackboard should be directed to Blackboard Instructional Technology Support for Students (https://its.gmu.edu/knowledge-base/blackboard-instructional-technology-support-for-students/).

Notice of mandatory reporting of sexual assault, interpersonal violence, and stalking:

- As a faculty member, I am designated as a "Responsible Employee," and must report all disclosures of sexual assault, interpersonal violence, and stalking to Mason's Title IX Coordinator per University Policy 1202. If you wish to speak with someone confidentially, please contact one of Mason's confidential resources, such as Student Support and Advocacy Center (SSAC) at 703-380-1434 or Counseling and Psychological Services (CAPS) at 703-993-2380. You may also seek assistance from Mason's Title IX Coordinator by calling 703-993-8730, or emailing the Title IX Coordinator (titleix@gmu.edu).

- **For information on student support resources on campus, see Student Support**

Resources on Campus (https://ctfe.gmu.edu/teaching/student-support-resources-on-campus).

- For additional information on the College of Education and Human Development, please visit our website College of Education and Human Development (http://cehd.gmu.edu/).

Appendix

Assessment Rubric(s)

EDAT 422 Sensory Device Instructional Plan Project

	Assessment Criteria	Does Not Meet Expectations	Approaches Expectations	Meets Expectations
Device Overview **AT Program Standard 2.4**	**Indicator 2.4: In conjunction, candidates possess a repertoire of evidences-based strategies to develop personalized supports for individuals with exceptional needs across environments, settings, and the life span.**	**Candidate fails to identify a sensory device developed to provide personalized supports for individuals with exceptional needs.**	**Candidate identifies sensory device(s) but is limited on knowledge as to how the device(s) can provide personalized supports for individuals with exceptional needs.**	**Candidate identifies and introduces sensory device(s) designed to provide personalized supports for individuals with exceptional needs.**
User Characteristics and Needs **AT Program Standard 1.1**	**Indicator 1.1: Candidates understand the similarities and differences in human development and the characteristics between and among individuals with and without exceptional needs.**	**Candidate fails to identify characteristics specific to those with exceptional needs as it relates to typical human development.**	**Candidate identifies some salient characteristics of those with exceptional needs as it relates to typical human development.**	**Candidate identifies salient characteristics of those with exceptional needs as it relates to typical human development.**

	Assessment Criteria	Does Not Meet Expectations	Approaches Expectations	Meets Expectations
User Characteristics and Needs **AT Program Standard 1.2**	**Indicator 1.2: Candidates understand how exceptional conditions can interact with the domains of human development and consider the impact of utilizing specific features of assistive technology devices and strategies to increase, maintain, or improve functional capabilities of individual with exceptional needs.**	**Candidate fails to identify specific and related characteristics of users who could benefit from sensory device(s).**	**Candidate identifies some related characteristics of users who could benefit from sensory device(s).**	**Candidate identifies specific characteristics of users who could benefit from sensory device(s).**
User Characteristics and Needs **AT Program Standard 1.3**	**Indicator 1.3: Candidates understand how issues of human diversity can impact individuals, families, communities, and cultures, and how these complex human issues in the delivery of assistive technology.**	**Candidate fails to consider how issues of human diversity can impact individuals, families, communities, and cultures, and how these complex human issues can interact with issues in the delivery of**	**Candidate considers how some issues of human diversity can impact individuals, families, communities, and cultures, and how these complex human issues can interact with issues in the delivery of the**	**Candidate considers how issues of human diversity can impact individuals, families, communities, and cultures, and how these complex human issues can interact with issues in the delivery of the**

	Assessment Criteria	Does Not Meet Expectations	Approaches Expectations	Meets Expectations
		sensory device(s).	**sensory device(s).**	**sensory device(s).**
Customized Training Plan **AT Program Standards 2.4**	**Indicator 2.4: In conjunction, candidates possess a repertoire of evidences-based strategies to develop personalized supports for individuals with exceptional needs across environments, settings, and the life span.**	**Candidate fails to identify and match appropriate sensory device(s) based on individual and environmental needs.**	**Candidate identifies appropriate sensory device(s) but does not necessarily match that device based on individual and environmental needs.**	**Candidate identifies and matches a sensory device(s) to potential users based on individual and environmental needs.**
Customized Training Plan **AT Program Standards 3.7**	**Indicator 3.7: Candidates develop and report plans to implement and monitor outcomes of interventions and reevaluate and adjust the system as needed.**	**Candidate fails to develop and report plans to implement and monitor outcomes of interventions and reevaluate and adjust the sensory device(s) as needed.**	**Candidate's plans to implement and monitor outcomes of interventions are limited and do not necessarily plan to reevaluate and adjust the sensory device(s) as needed.**	**Candidate develops and reports a plan to implement the use of the sensory device(s) and monitor its outcomes; considering the possibility for needing adjustments and reevaluation.**
Customized Training Plan **AT Program Standards 2.4**	**Indicator 2.4: In conjunction, candidates possess a repertoire of evidences-based strategies to develop**	**Candidate fails to utilize evidence-based strategies to develop personalized supports for individuals with**	**Candidate utilizes limited strategies to develop personalized supports for individuals with**	**Candidate utilizes evidence-based strategies to customize supports for individuals with**

	Assessment Criteria	Does Not Meet Expectations	Approaches Expectations	Meets Expectations
	personalized supports for individuals with exceptional needs across environments, settings, and the life span.	**exceptional needs.**	**exceptional needs.**	**exceptional needs.**
Customized Training Plan **AT Program Standards 3.3**	**Indicator 3.3: Candidates identify placement of devices and positioning of the individual to optimize the use of assistive technology.**	**Candidate does not identify physical placement of device(s) and positioning of the individual to optimize the use the sensory device(s).**	**If applicable, candidate identifies placement of devices and positioning of the individual to optimize the use of the sensory device(s).**	**If applicable, candidate identifies the physical placement of device(s) and positioning of the individual to optimize the use of the sensory device(s).**
Community Impact **AT Program Standard 1.3**	**Indicator 1.3: Candidates understand how issues of human diversity can impact individuals, families, communities, and cultures, and how these complex human issues in the delivery of assistive technology.**	**Candidate fails to discuss the impact sensory device(s) can have on individuals with exceptional needs within various cultures and communities.**	**Candidate provides a limited discussion that does not specifically address the impact sensory device(s) can have on individuals with exceptional needs within various cultures and communities.**	**Candidate discusses the impact sensory device(s) can have on individuals with exceptional needs within various cultures and communities.**