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

Fall 2019
EDAT 522: Assistive Technology for Individuals with Sensory Impairments.
Section DL1; CRN: 72545
Section 6V1; CRN: 82647
Section 6Y1; CRN: TBD
3– Credits

Instructor: Dr. Margaret Fields	**Meeting Dates**: 8/26/2019 – 12/18/2019
Phone: 804-371-9691	**Meeting Day(s)**: Online
E-Mail: mfield6@gmu.edu	**Meeting Time(s)**: Online
Office Hours: Phone meeting by appointment	**Meeting Location**: N/A
Office Location: NET	**Other Phone**: 804-320-6204

> ➤ 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 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

Course Instructional Method
EDAT 522 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 an 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 26, 2019.

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: https://help.blackboard.com/Learn/Student/Getting_Started/Browser_Support#supported-browsers

  To get a list of supported operation systems on different devices see: 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 **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, class discussions, and/or access to course materials at least 2 times per week.
  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, 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 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 Textbooks
Presley, I., & D'Andrea, F. (2009). In *Assistive Technology for Students Who are Blind or Vision Impaired*. New York: AFB Press.

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

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 on how to upload the PBA to

Tk20.

For EDAT 522, the required PBA is Sensory Device Instruction Project. Please check to verify your ability to upload items to Tk20 before the PBA due date.

Assignments and/or Examinations
Performance-based Assessment (Tk20 submission required)

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.

College Wide Common Assessment (TK20 submission required)
None

Performance-based Common Assignments (No Tk20 submission required)
None

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 Nov 4th

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
F	<70

*Note: The George Mason University Honor Code will be strictly enforced. 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 or with proper citations (see https://catalog.gmu.edu/policies/honor-code-system/).

Professional Dispositions
Students are expected to exhibit professional behaviors and dispositions at all times. See 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. 27– Sept. 2	Course Orientation & VI and HI Characteristics	**Reading:** Materials included in Module I Activities **Assignment:** Weekly Online Module Activities Posted on Blackboard
Module 2: Sept. 3 – Sept. 9	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. 10 - Sept. 16	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. 17 - Sept. 23	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. 24– Sept. 30	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 6: Oct. 1- Oct. 7	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. 8 - Oct. 14	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	Topic(s)	Readings & Assignments
Module 8: Oct. 15 – Oct. 21	• Preparing for the Assessment Report – Now Due November 5th	**Assignment:** Weekly Online Module Activities Posted on Blackboard
Module 9: Oct 22 – Oct. 28	Accessing Electronic Information Auditorily and Tactilely Screen Reading and Braille Tools	**Readings:** **Readings:** Chapter 3 pp. 104-119 (Presley & D'Andrea, 2009) 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
Module 10: Oct 29 - Nov. 4	Producing Electronic Files • Electronic Writing Tools • Keyboarding • Managing Electronic Files	**Readings:** Chapter 4 pp. 120 – 132 & 141 - 144 (Presley & D'Andrea, 2009) **Assignment:** Weekly Online Module Activities Posted on Blackboard *Assessment Report Due Nov. 5th
Module 11: Nov. 5 - Nov. 11	Training on Technology Strategies & Best Practices Review of Tools for Recording Final Presentation	**Readings:** Materials included in Module 11 Activities **Assignment:** Weekly Online Module Activities Posted on Blackboard
Module 12: Nov.12- Nov. 18 Nov. 20 – Nov. 26 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 13: Nov. 26 – Dec 2	Review of Final Project Submission Requirements. Work on Final Project	**Readings:** Materials Provided in Module **Assignment:** *Submit Final Project Instructional Plan Due December 3rd

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 https://catalog.gmu.edu/policies/honor-code-system/).

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

Campus Resources

- Support for submission of assignments to Tk20 should be directed to tk20help@gmu.edu or https://cehd.gmu.edu/aero/tk20. Questions or concerns regarding use of Blackboard should be directed to http://coursessupport.gmu.edu/.

- For information on student support resources on campus, see 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 https://cehd.gmu.edu/students/.

Appendix
Assessment Rubric(s)

	Assessment Criteria	Does Not Meet Expectations	Meets Expectations	Exceeds 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 sensory device(s) developed to provide personalized supports for individuals with sensory needs.	Candidate identifies and introduces sensory device(s) designed to provide personalized supports for individuals with sensory needs.	Candidate identifies and reviews sensory device(s) designed to provide personalized supports for individuals with sesnory needs across environments, settings, and the life span.
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 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 across environments, settings, and life span.
User Characteristics and Needs AT Program Standard 1.2	**Indicator 1.2:** Candidates understand how exceptional	Candidate fails to identify specific and related characteristics of users who	Candidate identifies specific characteristics of users who could benefit	Candidate identifies specific characteristics of users who could benefit

	Assessment Criteria	Does Not Meet Expectations	Meets Expectations	Exceeds Expectations
	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.	could benefit from specified sensory device(s)	from the specified sensory device(s).	from specified sensory device(s) based on their understanding of exceptional conditions or other human factors.
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 sensory device(s).	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 sensory device(s).	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 sensory device(s).

	Assessment Criteria	Does Not Meet Expectations	Meets Expectations	Exceeds Expectations
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 an appropriate sensory device(s) based on individual and environmental needs. | Candidate identifies and matches an sensory device(s) to potential users based on individual and environmental needs. | Candidate identifies and matches an appropriate sensory device(s) to potential users based on individual and environmental needs while also considering personal interests, preferences, values and cultural influences. |
| Customized Training Plan

AT Program Standards 2.4 | **Indicator2.4:** 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 utilize evidence-based strategies to develop personalized supports for individuals with exceptional needs. | Candidate utilizes evidence-based strategies to customize supports for individuals with exceptional needs. | Candidate utilizes evidence-based strategies to customize supports for individuals with exceptional needs across environments, settings, and the life span. |
| Customized Training Plan | **Indicator 3.3:** Candidates identify | If applicable, Candidate does not identify physical | If applicable, candidate identifies the physical | If applicable, candidate identifies the physical |

	Assessment Criteria	Does Not Meet Expectations	Meets Expectations	Exceeds Expectations
AT Program Standards 3.3	placement of devices and positioning of the individual to optimize the use of assistive technology.	placement of device(s) and positioning of the individual to optimize the use of the sensory device(s).	placement of device(s) and positioning of the individual to optimize the use of the sensory device(s).	placement of devices and positioning of the individual to optimize the use of the sensory device.
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 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.	Candidate develops and reports a plan to implement the use of the sensory device(s) and monitor its outcomes; considering the potential for needing adjustments and reevaluation.
Customized Training Implementation AT Program Standard 4.1 and 4.2	**Indicator 4.1:** Candidates apply knowledge and skills to identify user needs and customize assistive technology tools and strategies that are meaningful and useful.	Candidate fails to apply knowledge and skills to identify specific user/trainee needs, develop, and customize sensory devices and strategies that are meaningful and useful to individuals with exceptional needs, their	Candidate applies knowledge and skills to identify user/trainee needs to develop, customize and present the use of the sensory device(s) and strategies that are meaningful and useful to individuals with exceptional	Candidate applies knowledge and skills to identify user/trainee needs to develop, customize and present a range of sensory devices and strategies that are meaningful and useful to individuals with exceptional

	Assessment Criteria	Does Not Meet Expectations	Meets Expectations	Exceeds Expectations
	Indicator 4.2: Candidates provide customized assistive technology training services to individuals with exceptional needs, their families, and/ or their community of support.	families, and/or their community of support.	needs, their families, and/or their community of support.	needs as well as their families, and community of support.
Demonstration AT Program Standard 2.3	**Indicator 2.3:** Candidates are knowledgeable of and demonstrate proficiency in use of a range of assistive technology tools.	Candidate does not demonstrate knowledge and proficiency in the use of sensory device(s).	Candidate is knowledgeable of and demonstrates proficiency in use of sensory device(s).	Candidate is knowledgeable of and demonstrates proficiency in use of a range of sensory devices as well as evidence-based strategies to develop customized supports.
Reflection AT Program Standard 5.1	**Indicator 5.1:** Candidates promote and advocate for the benefits of continued implementation of assistive technology	Candidate fails to promote and advocate for the benefits of continued implementation of sensory devices and strategies for	Candidate promotes and advocates for the benefits of continued implementation of sensory devices and strategies for	Candidate promotes and advocates for the benefits of continued implementation of sensory devices and strategies for

	Assessment Criteria	Does Not Meet Expectations	Meets Expectations	Exceeds Expectations
	tools and strategies for individuals with exceptional needs across a wide range of settings and based on various needs.	individuals with exceptional needs.	individuals with exceptional needs.	individuals with exceptional needs across a wide range of settings and based on various needs.
Reflection AT Program Standards 2.5 and 5.3	**Indicator 2.5:** Candidates continuously broaden and deepen their professional knowledge, and expand their expertise with assistive technology tools and strategies. **Indicator 5.3:** Candidates prepare for ongoing professional development to acquire knowledge and skills about new developments in assistive technology, which may include	Candidate fails to identify specific and relevant professional development opportunities to acquire knowledge and skills about new developments in sensory devices.	Candidate identifies potential professional development opportunities to acquire knowledge and skills about new developments in sensory devices.	Candidate identifies potential professional development to acquire knowledge and skills about new developments in sensory devices, which may include participation in activities of professional organizations relevant to the field of assistive technology.

	Assessment Criteria	Does Not Meet Expectations	Meets Expectations	Exceeds Expectations
	participation in activities of professional organizations relevant to the field of assistive technology.			