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

Summer 2020
EDAT 423 D01: Accessibility and Input Modifications
CRN: 40340, 3 – Credits

Instructor Contact Information	Course Time and Location
Instructor: Cindy George	**Meeting Dates**: 06/01/20 – 08/08/20
Phone: 571-230-7854	**Meeting Day(s)**: N/A Asynchronous
E-Mail: cgeorge4@gmu.edu	**Meeting Time(s)**: N/A Asynchronous
Office Hours: by appointment	**Meeting Location**: N/A Online
Office Location: Krug 105A	**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 accessibility strategies and input modifications designed for use by individuals with disabilities. Enables students to locate, use and train others on the range of technologies available as well as design opportunities for constructing unique devices.

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 423 is and 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. Online lecture and reflection
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 a synchronous 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 Friday, May 29, 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: 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/)

- o [Windows Media Player](https://support.microsoft.com/en-us/help/14209/get-windows-media-player) (https://support.microsoft.com/en-us/help/14209/get-windows-media-player)
  - o [Apple Quick Time Player](www.apple.com/quicktime/download/) (www.apple.com/quicktime/download/)

Expectations

- Course Week:
  Because asynchronous courses do not have a "fixed" meeting day, our modules will be approximately every 6 days. Each module date is indicated on the Schedule of Classes.
- Log-in Frequency:
- Students must actively check the course Blackboard site and their GMU email for communications from the instructor, class discussions, and/or access to course materials at least 3 times per week. In addition, students must log-in for all scheduled online synchronous meetings.
- Participation:
  Students are expected to actively engage in all course activities throughout the semester, which includes viewing all course materials, completing course activities and assignments, and participating in course discussions and group interactions.
- Technical Competence:
  Students are expected to demonstrate competence in the use of all course technology. Students who are struggling with technical components of the course are expected to seek assistance from the instructor and/or College or University technical services.
- Technical Issues:
  Students should anticipate some technical difficulties during the semester and should, therefore, budget their time accordingly. Late work will not be accepted based on individual technical issues.
- Workload:
  Please be aware that this course is **not** self-paced. Students are expected to meet *specific deadlines* and *due dates* listed in the **Class Schedule** section of this syllabus. It is the student's responsibility to keep track of the weekly course schedule of topics, readings, activities and assignments due.
- Instructor Support:
  Students may schedule a one-on-one meeting to discuss course requirements, content or other course-related issues. Those unable to come to a Mason campus can meet with the instructor via telephone or web conference. Students should email the instructor to schedule a one-on-one session, including their preferred meeting method and suggested dates/times.
- Netiquette:
  The course environment is a collaborative space. Experience shows that even an innocent remark typed in the online environment can be misconstrued. Students must always re-read their responses carefully before posting them, so as others do not consider them as personal offenses. *Be positive in your approach with others and diplomatic in selecting your words*. Remember that you are not competing with classmates, but sharing

information and learning from others. All faculty are similarly expected to be respectful in all communications.

- Accommodations:
  Online learners who require effective accommodations to insure accessibility must be registered with George Mason University Disability Services.

Learner Outcomes

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

1. Review and locate devices, companies, organizations, and services related to input and access to technology.
2. Evaluate the importance of accessibility features.
3. Design and construct a low-tech solution for accessibility
4. Develop an instructional plan for a customized training of an input technology
5. Customized training of how to use an input technology for an individual with a disability, 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 Textbooks

Cook, A. M. & Polgar, J. M. (2012). Essentials of assistive technologies. St. Louis, MO: Elsevier Mosby.

> The rental of the text can be found at the following link:
> https://www.amazon.com/Essentials-Assistive-Technologies-Book-Albert-ebook-dp-B00H8P6OOG/dp/B00H8P6OOG/ref=mt_kindle?_encoding=UTF8&me=&qid=

Recommended Textbooks

American Psychological Association. (2020). *Publication manual of the American Psychological Association* (7th ed.).

Najafi, L. & Cowan, D. (2018). Handbook of electronic assistive technology. Cambridge, MA: Academic Press.

Additional Readings

Apple Computer. Accessibility. Retrieved May 20, 2020

[Microsoft Corporation. Enable.](#) Retrieved May 20, 2020

Course Performance Evaluation

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

Tk20 Performance-Based Assessment Submission Requirement

It is critical for the special education program to collect data on how our students are meeting accreditation standards. Every teacher candidate/student registered for an EDSE course with a required Performance-based Assessment (PBA) is required to upload the PBA to Tk20 (regardless of whether a course is an elective, a one-time course or part of an undergraduate minor). A PBA is a specific assignment, presentation, or project that best demonstrates one or more CEC, InTASC or other standard connected to the course. A PBA is evaluated in two ways. The first is for a grade, based on the instructor's grading rubric. The second is for program accreditation purposes. Your instructor will provide directions as to how to upload the PBA toTk20

For EDAT 423, the required PBA is Adapted Input 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)
The submission assignment(s) for this class is the: Adapted Input Design Instruction Project. The specific assignment description is below.

College Wide Common Assessment
(TK20 submission required)
N/A

Performance-based Common Assignments
(No Tk20 submission required)
N/A

Course Policies and Expectations

Attendance/Participation

Students are expected to actively engage in ALL module 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. Please note that while only certain learning elements are assessed through "grades", the instructor can still assess student involvement and engagement using other measures. Blackboard enables the instructor to view such data as login dates, duration of time spent online,

access to specific content elements, and more. The instructor will use this data along with course grades to ensure that students are actively engaged in the course.

Late Work

All module work submitted late will automatically receive ½ credit unless arrangements are made in advance with the instructor. Work will not be accepted if work is submitted after the end of the next module. All final project work will receive a response cost unless arrangements are made in advance with the instructor.

Grading Scale

Evaluation will be based upon a point system totaling 100 points for the class; using the following grade scale:

A+ = >100%

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%

The point value for each assignment is as follows:

- Online Modules – 40 points
  Students must access online class on Blackboard during modules and complete readings and posted activities for all classes. Posted activities will include text readings, PowerPoint presentations of content, Internet search/research assignments, video exploration and viewing, community exploration, response tasks and construction activities. All activities are due by the last day of the module timeframe.

- Low-Tech Designs – 20 points
  Students are to select two of the low-tech devices from each of the 2 Low Tech Sessions to construct. Submission to include the following:

  - The name and purpose of each device
  - A description of potential users for the devices
  - Pictures taken while you made the device during ***EACH*** step

- Adapted Input Device Instruction Project – 40 points
  Students are required to create and implement an instruction project for training the use of an adaptive input device. The purpose of the plan is to introduce the use of this device to a potential user (i.e., colleague, individual with disability, a parent or family member of a person with a disability, or a professional working with an individual with a disability). The designated input device is to be approved by the instructor. This plan itself should be submitted as a text document that consists of the following:

  - *Device Overview*: Provides a description of the adapted input device. The description should include the purpose of the device, its features, and its vendor/contact information.
  - *User Characteristics & Needs*: 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.
  - *Customized Training*: Designs a training customized specifically for a user. A training plan should include: *goal(s)* of the 1-hour training, *objectives* for each section or topic being trained with an allocated *timeframe* for each, 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.
  - *Reflection*: Provides a reflection on the implementation of the device training from both the trainer and the trainee perspective. The reflection will also include of 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 candidate/trainer might require to provide additional training.
  - *Community Impact*: Discusses the potential impact the Adapted Device Training could have on individuals with disabilities, their families, and communities across environments, settings and life span.

*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 (every 6 days)	TOPIC	READING (as of 5/20/20)	ASSIGNMENT
Module 1 **6/1 – 6/6**	Introduction & Computer Accessibility	**Cook & Polgar (2012)** Chapters 1 & 2	Online Tasks for Module 1
Module 2 **6/7 – 6/12**	Software /Apps Accessibility	**Cook & Polgar (2012)** Chapter 5	Online Tasks for Module 2 *Software Demos DUE DATE 6/12*
Module 3 **6/13 – 6/18**	Alternative Keyboards & Mice	**Cook & Polgar (2012)** 112-122, 124-126, 135-142	Online Tasks for Module 3
Low-Tech Session I **6/19 – 6/24**	Computer Access Solutions	Review Low-Tech Computer Access Websites	Low Tech Constructions
Module 4 **6/25 – 6/30**	Head Access	**Cook & Polgar (2012)** 117, 122-126	Online Tasks for Module 4
Module 5 **7/1 – 7/6** July 4th Holiday	Switch Access	**Cook & Polgar (2012)** 126-134, 142-152	Online Tasks for Module 5 *Training Device Approval DUE DATE 7/6*
Low-Tech Session II **7/7 – 7/12**	Access to Independent Living	Review Accessing Home/Community Websites	Low Tech Constructions

MODULE (every 6 days)	TOPIC	READING (as of 5/20/20)	ASSIGNMENT
Module 6 7/13 – 7/18	Wheelchair Seating for Access	**Cook & Polgar (2012)** Chapter 4	Online Tasks for Module 6
Module 7 7/19 – 7/24	Vehicle Access	**Cook & Polgar (2012)** Chapter 13	Online Tasks for Module 7
Module 8 7/25 – 7/30	Access to Homes	**Cook & Polgar (2012)** Chapter 14	Online Tasks for Module 8
Module 9 7/31 – 8/5	Final Assignments	Input Device Instructional Plan Project *DUE DATE 8/4* Final Class Survey & Tk20 Submission of Plan *DUE DATE 8/5*	

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 Tk20 should be directed to Tk20 Help (tk20help@gmu.edu) or CEHD's Online Assessment System (https://cehd.gmu.edu/aero/tk20). 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)

	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	Candidate fails to identify adapted input device(s) developed to provide personalized supports for	Candidate identifies and introduces adapted input device(s) designed to provide personalized supports for	Candidate identifies and reviews adapted input device(s) designed to provide personalized supports for individuals with

	Assessment Criteria	Does Not Meet Expectations	Meets Expectations	Exceeds Expectations
	exceptional needs across environments, settings, and the life span.	individuals with physical needs.	individuals with physical needs.	physical needs across environments, settings, and the life span.
User Characteristics and Needs AT Program Standard 1.1	*Indicator 2.4:* 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.
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	Candidate fails to identify specific and related characteristics of users who could benefit from specified adapted input device(s)	Candidate identifies specific characteristics of users who could benefit from the specified adapted input device(s).	Candidate identifies specific characteristics of users who could benefit from specified adapted input device(s) based on their understanding of exceptional conditions or other human factors.

	Assessment Criteria	Does Not Meet Expectations	Meets Expectations	Exceeds Expectations
	improve functional capabilities of individual with exceptional 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 adapted the input 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 adapted input 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 adapted input 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 adapted input device(s) based on individual and environmental needs.	Candidate identifies and matches an adapted input device(s) to potential users based on individual and environmental needs.	Candidate identifies and matches an appropriate adapted input device(s) to potential users based on individual and environmental needs; considering personal interests, preferences, values and cultural influences.
AT Program Standards 2.4	*Indicator 2.4:* Candidates possess a evidences-based strategies to develop personalized supports for individuals with exceptional needs across environments, settings, & 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.

	Assessment Criteria	Does Not Meet Expectations	Meets Expectations	Exceeds Expectations
Customized Training Plan AT Program Standards 3.3	*Indicator 3.3:* Candidates identify placement of devices & positioning of individual to optimize the use of assistive technology.	If applicable, candidate does not identify placement of device(s) and positioning of the individual to optimize using the adapted input device(s).	If applicable, candidate identifies the placement of device(s) and positioning of the individual to optimize using the adapted input device(s).	If applicable, candidate identifies the placement of devices and positioning of the individual to optimize using the adapted input device(s).
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 input device(s) as needed.	Candidate develops and reports a plan to implement the use of the input 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 device(s) and monitor its outcomes; considering the potential for needing adjustments and reevaluation.

	Assessment Criteria	Does Not Meet Expectations	Meets Expectations	Exceeds Expectations
Customized Training Implementation AT Program Standard 4.2	*Indicator 4.2:* Candidates provide customized assistive technology training services to individuals with exceptional needs, their families, and/ or their community of support.	Candidate fails to apply knowledge and skills to identify specific user/trainee needs, develop, and customize adapted input devices and strategies that are meaningful and useful to individuals with exceptional needs, their families, and/or their community of support.	Candidate applies knowledge and skills to identify user/trainee needs to develop, customize and present the use of the adapted input device(s) and strategies that are meaningful and useful to individuals with exceptional needs, their families, and/or their community of support.	Candidate applies knowledge and skills to identify user/trainee needs to develop, customize and present a range of adapted input devices and strategies that are meaningful and useful to individuals with exceptional needs as well as their families, and community of support.

	Assessment Criteria	Does Not Meet Expectations	Meets Expectations	Exceeds Expectations
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 adapted input device(s).	Candidate is knowledgeable of and demonstrates proficiency in use of adapted input device(s).	Candidate is knowledgeable of and demonstrates proficiency in use of a range of adapted input 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 tools and strategies for individuals with exceptional needs across a wide range of settings and based on various needs.	Candidate fails to promote and advocate for the benefits of continued implementation of adapted input devices and strategies for individuals with exceptional needs.	Candidate promotes and advocates for the benefits of continued implementation of adapted input devices and strategies for individuals with exceptional needs.	Candidate promotes and advocates for the benefits of continued implementation of adapted input devices and strategies for individuals with exceptional needs across a wide range of settings and based on various needs.

	Assessment Criteria	Does Not Meet Expectations	Meets Expectations	Exceeds Expectations
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 participation in activities of professional organizations relevant to the field of assistive technology.	Candidate fails to identify specific and relevant professional development opportunities to acquire knowledge and skills about new developments in adapted input devices.	Candidate identifies potential professional development opportunities to acquire knowledge and skills about new developments in adapted input devices.	Candidate identifies potential professional development to acquire knowledge and skills about new developments in adapted input 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
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 adapted input device(s) can have on individuals with exceptional needs within various cultures & communities.	Candidate discusses the impact adapted input device(s) can have on individuals with exceptional needs within various cultures & communities.	Candidate discusses the impact adapted input device(s) can have on individuals with exceptional needs and their families within various diverse environments, cultures and communities.