



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

Summer 2016

EDAT 523 D01: Accessibility and Input Modifications

CRN: 41196, 3 - Credits

<b>Instructor:</b> Ms. Cindy George	<b>Meeting Dates:</b> 05/25/16 - 07/30/16
<b>Phone:</b> 571-230-7854	<b>Meeting Day(s):</b> Asynchronous
<b>E-Mail:</b> cgeorge4@gmu.edu	<b>Meeting Time(s):</b> Asynchronous
<b>Office Hours:</b> by appointment only	<b>Meeting Location:</b> Internet

***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.*

EDAT 523 is a combination synchronous and asynchronous course. Using Blackboard, students are expected to complete assignments weekly and be engaged in course activities throughout the semester. In addition, students are expected to connect in real time for synchronous class meetings on the following dates using Blackboard Collaborate.

**Course Description**

Provides an overview of accessibility strategies and input modifications designed for use by individuals with disabilities. Exploration experiences enable students to locate, use and train others on the range of technologies available as well as design opportunities for constructing unique devices. Field experience may be required.

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 May 25, 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/](http://www.apple.com/quicktime/download/)
- A headset microphone for use with the Blackboard Collaborate web conferencing tool

### **TECHNICAL EXPECTATIONS:**

- **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](mailto: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.

**Netiquette:** Our goal is to be **collaborative**, not combative. Experience shows that even an innocent remark in the online environment can be misconstrued. It is suggested to always re-read responses carefully before posting to encourage others from taking them as personal attacks. **Be positive in approaching others and use diplomatic words.** It will be returned. Remember, this is not a competition with classmates but a sharing of information and an opportunity for learning; not only from the instructor but from one another as well.

### **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 [<http://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.

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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, Early Childhood Education PK-3, Dual Licensure Early Childhood Education PD-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](mailto: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. 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. Conduct a customized training of how to use an input technology for an individual with a disability, their family, or a professional who works with individuals.

### **Required Textbooks**

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

### **Required Readings**

*Apple Computer*. Accessibility. Retrieved May 15, 2016, from <http://www.apple.com/accessibility>

*Microsoft Corporation*. Enable. Retrieved May 15, 2016, from <http://www.microsoft.com/enable>

Robitaille, Suzanne (2010). Technology for people with physical disabilities. The illustrated guide to assistive technology and devices: Tools and gadgets for living independently. New York: Demos Medical.

Robitaille, Suzanne (2010). Technology for people with cognitive disabilities and learning disorders. The illustrated guide to assistive technology and devices: Tools and gadgets for living independently. New York: Demos Medical.

### **Additional Equipment & Materials**

This course requires students participate in constructing various input devices. To do so, both electronic equipment as well as project materials are needed. Reviewing the assignments and device options available for construction in Class Modules 6 and 10 will provide both equipment and materials needs. If you find you are in need of the electronic equipment required by these assignments, a suggested 'electronic kit' can be purchased at:

[http://www.amazon.com/Elenco-TK14-Electronics-Technician-Starter/dp/B0002IWF62/ref=sr\\_1\\_37?ie=UTF8&qid=1398520428&sr=8-37&keywords=solder+kit+for+electronics](http://www.amazon.com/Elenco-TK14-Electronics-Technician-Starter/dp/B0002IWF62/ref=sr_1_37?ie=UTF8&qid=1398520428&sr=8-37&keywords=solder+kit+for+electronics)

### **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.*

Because online asynchronous courses do not have a “fixed” meeting day, our modules will start on Wednesday the 25th, and run every 6 days. Students are expected to log in to the Blackboard course and their GMU email for communications from the instructor, at least 3 times per module. They should 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. 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. It is the student's responsibility to keep track of each session course schedule of topics, readings, activities and assignments due. Students struggling to complete work on time or who appear to not be engaging with course content will be asked to conference with the instructor.

*Late Work.*

Work will not be accepted if work is submitted a week past the due date. All work submitted late will automatically receive ½ credit unless arrangements are made in advance with the instructor.

**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 *Adapted Input 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**

Evaluation will be based upon a point system. The point value for each assignment is as follows:

The following grading scale will be used at the Graduate level:

Online Modules.....	40	>100% = A+
Low-Tech Design Construction Book .....	20	95-100% = A
Adapted Input Device Instruction Project.....	30	90-94% = A-
		87-89% = B+
<b>TOTAL POINTS.....</b>	<b>100</b>	83-86% = B
		80-82% = B-
		70-79% = C
		< 70% = F

**Assignments**

**Performance-based Assessment (Tk20 submission required).**

The signature assignment(s) for this class is the *Adapted Input Design Instruction Project*. Please see specific assignment description below.

**Performance-based Common Assignments (No Tk20 submission required).**

There are no common assignments with other classes.

## **Other Assignments.**

### **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 Design & Construction eBook (20 points)**

Students are to document the construction of each of the low-technologies created during the 2 Low-Tech Modules (6 and 10) by creating an eBook online. Each low-tech device made will be represented in its own chapter. The chapter should include:

- The name and purpose of the device
- A description of potential users for the device
- Step-by-step instructions on making the device
- Pictures taken of the device construction for each step

Specific directions will be available on Blackboard.

### **Adapted Input Device Instruction Project (40 points)**

Students are required to create an instruction project for training the use of an adaptive input device. The purpose of the project is to introduce the use of this device to a potential user (i.e., individual with disability, their parent or other family member, or a professional working with an individual with a disability). The designated input device must be approved by the instructor.

The Project Plan should be submitted as a narrative in Word and include the following components:

- Device Overview
- User Characteristics & Needs
- Customized Training Plan
- Reflection
- Community Impact

The Video should show the customized training of how the device is used.

Note.... *If you choose to train a minor, please contact the instructor for a Video Consent form.*



**Grading Rubric:**

Assignment Requirements		Points	Comments
Device/Client approval .....		2 pts	Due 6/30/16
<b>Instructional Training Plan (Due 7/29/16)</b>			
<b>Device Selection</b>	Description & Purpose.....	2 pts	
	Features .....	2 pts	
	Vendor/Contact info .....	2 pts	
<b>User Information</b>	Rationale .....	2 pts	
	Prerequisite skills .....	3 pts	
	Needs .....	3 pts	
	Considerations .....	2 pts	
<b>Customized Training</b>	Goal(s) & Objectives .....	3 pts	
	Materials .....	2 pts	
	Procedural steps .....	2 pts	
	Data collection .....	2 pts	
	Video demonstration .....	4 pts	Due 7/26/16
<b>Results</b>	Reflection.....	2 pts	
	Community Impact .....	2 pts	
<b>Peer Review .....</b>		5 pts	Due 7/30/16
<b>Total Points (out of 40 possible)</b>			

## Schedule

	Topic	Readings & Assignments
<b>Module 1</b> <b>5/25 – 5/31</b>  5/30 Memorial Day	Introduction & Computer Accessibility	<u>Reading/Review:</u> <b>Cook &amp; Polgar (2012)</b> Chapters 1 & 2 <a href="http://www.apple.com/accessibility">http://www.apple.com/accessibility</a> <a href="http://www.microsoft.com/enable">http://www.microsoft.com/enable</a>  <u>Assignment:</u> Online Module 1
<b>Module 2</b> <b>6/1 – 6/6</b>	Software /Apps Accessibility	<u>Reading:</u> <b>Cook &amp; Polgar (2012)</b> Chapter 5 <b>Robitaille (2010)</b> 123-129; 135-140 <u>Assignment:</u> Online Module 7 Software Demos
<b>Module 3</b> <b>6/7 – 6/12</b>	Alternative Keyboards & Mice	<u>Reading:</u> <b>Cook &amp; Polgar (2012)</b> 112-122, 124-126, 135-142 <u>Assignment:</u> Online Module 2
<b>Module 4</b> <b>6/13 – 6/18</b>	Head Access	<u>Reading:</u> <b>Cook &amp; Polgar (2012)</b> 117, 122-126 <u>Assignment:</u> Online Module 3
<b>Module 5</b> <b>6/19 – 6/24</b>	Switch Access	<u>Readings:</u> <b>Cook &amp; Polgar (2012)</b> 126-134, 142-152 <b>Robitaille (2010)</b> Chapter 5 <u>Assignment:</u> Online Module 4
<b>Module 6</b> <b>6/25 – 6/30</b>	Low-Tech: <i>Computer            Access Solutions</i>	<u>Review:</u> Low-Tech Computer Access Websites <u>Assignment:</u> Online Module 6  <b><i>Training Device Approval</i></b> ~ Due 6/30 ~

<p><b>Module 7</b> 7/1 – 7/7</p>	<p>Wheelchair Seating for Access</p>	<p><u>Reading:</u> <b>Cook &amp; Polgar (2012)</b> Chapter 4 <u>Assignment:</u> Online Module 5</p>
<p><b>Module 8</b> 7/8 – 7/13</p>	<p>Vehicle Access</p>	<p><u>Reading:</u> <b>Cook &amp; Polgar (2012)</b> Chapter 13 <u>Assignment:</u> Online Module 8</p>
<p><b>Module 9 &amp; 10</b> 7/14 – 7/26</p> <p>Extended Module</p>	<p>Access to Homes</p>	<p><u>Reading:</u> <b>Cook &amp; Polgar (2012)</b> Chapter 14 <u>Assignment:</u> Online Module 9</p>
	<p>Low-Tech: Access to Independent Living</p>	<p><u>Review:</u> <b>Accessing Home/Community Websites</b> <u>Assignment:</u> Online Module 10</p>
		<p><b><i>Low-Tech eBook</i></b> ~ Due 7/24 ~</p> <p><b><i>Training Video</i></b> ~ Due 7/26 ~</p>
<p><b>Module 11</b> 7/27 - 7/30</p>	<p>Final Assignments</p>	<p><u>Assignment:</u> Input Device Instructional Plan</p> <p><b><i>Input Device Instructional Plan: Written Project</i></b> ~ Due 7/29 ~</p> <p><b><i>Tk20 Submission of Plan</i></b> ~ Due 7/29 ~</p> <p><b><i>Peer Reviews</i></b> ~ Due 7/30 ~</p> <p><b><i>Final Class Survey</i></b> ~ Due 7/31 ~</p>