



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

Fall 2022

EDAT 526 DL1: Adapted Positioning and Functional Mobility

CRN: 82007, 3 – Credits

Instructor: Cindy George	Meeting Dates: 8/22/22 – 12/14/22
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Office Hours: by appointment only	Meeting Location: Net
Office Location: Krug Hall; 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 typical and atypical human anatomy and physiology, assistive strategies, positioning, and mobility technologies designed for use by individuals with disabilities. Enables students to design and construct unique devices and train a potential user.

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).

Advising Tip

Did you know that Mason email is the primary method of communication used by university offices? Check your Mason email regularly: <https://mail.gmu.edu/>.

Course Instructional Method

EDAT 526 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. Small group activities and assignments
4. Video and other media supports
5. Research and presentation activities
6. Electronic supplements and activities via Blackboard

This course will be delivered online (76% or more) using asynchronous format via 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 Monday, August 22, 2022 at 8:00 PM EST.

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 \(https://help.blackboard.com/Learn/Student/Getting_Started/Browser_Support#supported-browsers\)](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 \(https://help.blackboard.com/Learn/Student/Getting_Started/Browser_Support#tested-devices-and-operating-systems\)](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/) (<https://get.adobe.com/reader/>)
 - [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>)
 - [Apple Quick Time Player](http://www.apple.com/quicktime/download/) (www.apple.com/quicktime/download/)

Expectations

- **Course Week:**
Because asynchronous courses do not have a “fixed” meeting day, our week will start on Wednesday, and finish on Tuesday. 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.
- **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 ensure accessibility must be registered with George Mason University Disability Service.

Learner Outcomes

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

1. Describe typical and atypical human development.
2. Identify and discuss intervention services including medical, habilitative and rehabilitative.
3. Evaluate and select devices, companies, and organizations related to positioning and mobility technology.
4. Synthesize the importance of matching adaptive features with individual needs.
5. Design and develop a customized positioning or mobility technology.
6. Apply a training plan to implement a customized device for an individual with a disability, their family, or a professional who works with individuals with disabilities.

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 1: Characteristics and Needs, Standard 2: Knowledge and Skills, and Standard 4: Practical Experience.

*NOTE: CAEP Assessments (in many but not all courses) may address additional AT Program standards.

Required Texts

Cook, A. M. & Polgar, J. M. (2019). *Assistive technologies: Principles and practice* (5th ed.). Elsevier.

Required Readings

Cook, A. M. & Polgar, J. M. (2012). *Essentials of assistive technologies*. Elsevier.

Chui, K., Jorge, M., Yen, S., & Lusardi, M. (2019). Orthotics and prosthetics in rehabilitation: Multidisciplinary approach. In *Orthotics and prosthetics in rehabilitation* (4th ed., pp. 2–13). Elsevier.

Limmer, D. & O’Keefe, M. F. (2016). Anatomy and physiology. In *Emergency Care* (13th ed., pp. 111–149). Pearson.

National Center for Biotechnology Information. (2020). *Patient care transfer techniques*.
<https://www.ncbi.nlm.nih.gov/books/NBK564305>

Oostema, T., & Simpson, K. (2018, July 20). *Walk on: Decision making for functional ambulation*. Rehab Management. <https://rehabpub.com/mobility/standing-systems/walk>

OpenStax. (2014). Stages of development. In *Psychology*.
<https://openstax.org/books/psychology/pages/9-3-stages-of-development>

Optional Resources

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).

VIA 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 EDAT course with a required Performance-based Assessment (PBA) is required to upload the PBA to VIA (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 to VIA.

For EDAT 526, the required assessment is the Adapted Positioning & Mobility Device Training Plan. Please check to verify your ability to upload items to VIA before the PBA due date.

Assignments and/or Examinations

Performance-based Assessment (VIA submission required)

The required assignment(s) for this class is: *Adapted Positioning & Mobility Device Training Plan*. Please see specific assignment description below.

College Wide Common Assessment (VIA submission required)

N/A

Other Assignments

Weekly Learning Activities – 50 points. Students must access online class sessions on Blackboard to 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 posted due date.

Adapted Positioning or Functional Mobility Device – 20 points. Students will plan, design, and construct a custom-made adapted positioning or functional mobility device to be used as part of the final training plan. The design of the designated adapted positioning or functional mobility device must be approved by the instructor.

Submission includes the following:

- The name and purpose of the device
- A description of potential users for the device
- The procedures for making the device with pictures taken at *EACH* step.

Adapted Positioning & Mobility Device Training Plan – 30 points. Develop a training plan for the use of your custom-made positioning or functional mobility device. The purpose of the plan is to introduce the use of your 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 plan itself should be submitted as a narrated presentation that consists of the following:

- **Device Overview:** Provides the name and description of the custom-made positioning or functional mobility device. The description should include the purpose of the device, its features, and its construction procedures.
- **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 using the device will be outlined. Consideration of diverse needs of both the user in training as well as those that may be affected by the training should be addressed.
- **Customized Training:** Designs and implements 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.
- **Video Demonstration:** Records a 2-3-minute video documenting a portion of the training that shows the actual demonstration of the use of the adaptive device. The video will accompany the Instructional Plan write-up as evidence of proficiency in device use.
- **Reflection:** Provides a reflection on the implementation of the device training from both the trainer and the trainee perspective. The reflection will also include how the customized device itself might be constructed differently as well as a listing of what might be altered if the training were repeated, what steps should be

taken if additional training was needed and what potential professional development needs that might require to provide additional training.

- **Community Impact:** Discusses the potential impact the Adapted Positioning & Mobility Device Training could have on individuals with disabilities, their families, and communities across environments, settings and life span.

Assignment Summary

Assignment	Due Date	Points Possible
Weekly Learning Activities		50 points
Adapted Positioning or Functional Mobility Device		20 points
Adapted Positioning & Mobility Device Training Plan		30 points
Total Points:		100 points

Course Policies and Expectations

Attendance/Participation

Students are expected to actively engage in *ALL* weekly 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 activities and assignments should be submitted through Blackboard by 11:59 PM on the dates indicated.

All assignments (e.g., quizzes, activities, assignments, projects) must be submitted via

Blackboard on or before 11:59 PM on the stated due date. In fairness to students who submit work on time, points will be deducted for late submissions (up to 10% per day). Assignments will not be accepted more than 4 days late unless prior arrangements with the instructor have been made.

Grading

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

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. See [Academic Integrity Site](https://oai.gmu.edu/) (<https://oai.gmu.edu/>) and [Honor Code and System](https://catalog.gmu.edu/policies/honor-code-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/policies-procedures/) (<https://cehd.gmu.edu/students/policies-procedures/>).

Class Schedule

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

MODULE	TOPIC	READING	ASSIGNMENT DUE
Module 1 8/24 – 8/30	Human Anatomy & Physiology	<i>Limmer & O’Keefe</i> (2016) Anatomy & Physiology Chapter 6	Module 1 Learning Activities
Module 2 8/31 – 9/6	Human Developmental Stages & Functional Abilities	<i>Cook & Polgar</i> (2019) pp. 35–38, 97–100 <i>OpenStax</i> (2014) Stages of Development Chapter 9.3	Module 2 Learning Activities

MODULE	TOPIC	READING	ASSIGNMENT DUE
Module 3 9/7 – 9/13	Typical vs. Atypical Development Etiology Pathology & Characteristics of Diagnoses	<i>Cook & Polgar</i> (2019) pp. 138-140, 412–418	Module 3 Learning Activities
Module 4 9/14 – 9/20	Intervention Services	<i>Cook & Polgar</i> (2012) Chapter 1, pp. 1–14	Module 4 Learning Activities
Module 5 9/21 – 9/27	Medical Support Devices: Orthotics & Prosthetics	<i>Chui et al.</i> (2019) Chapter 1	Module 5 Learning Activities
Module 6 9/28 – 10/4	Medical Support Devices: Ambulation	<i>Oostema & Simpson</i> (2018) Walk on: Decision making for functional ambulation	Module 6 Learning Activities
Module 7 10/5 – 10/11	Medical Support Devices: Standing & Transfers	<i>National Center for Biotechnology Information</i> (2020) Patient care transfer techniques	Module 7 Learning Activities
Module 8 10/12 – 10/18	Seating & Mobility: Positioning	<i>Cook & Polgar</i> (2019) Chapter 10	Module 8 Learning Activities

MODULE	TOPIC	READING	ASSIGNMENT DUE
Module 9 10/19 – 10/25	Seating & Mobility: Manual Wheelchairs	<i>Cook & Polgar</i> (2019) Chapter 11, pp. 224–247	Module 9 Learning Activities Adapted Positioning or Functional Mobility Device proposal Due 10/25
Module 10 10/26 – 11/8 (2 week)	Seating & Mobility: Electric Wheelchairs Adapted Positioning or Functional Mobility Device	<i>Cook & Polgar</i> (2019) Chapter 11, pp. 247–257	Module 10 Learning Activities Adapted Positioning or Functional Mobility Device Due 11/1
Module 11 11/9 – 11/15	Accessible Transportation: Adapted Vehicles & Passengers	<i>Cook & Polgar</i> (2019) Chapter 12, pp. 258–270	Module 11 Learning Activities
Module 12 11/6 – 11/22	Accessible Transportation: Driver	<i>Cook & Polgar</i> (2019) Chapter 12, pp. 270–277	Module 12 Learning Activities
Module 13 11/23 – 12/6 (2 week)	Integration: Device & Professional Interconnection Adapted Positioning & Mobility Device Training Plan	<i>Cook & Polgar</i> (2019) Chapter 5	Module 13 Learning Activities Plan Development

MODULE	TOPIC	READING	ASSIGNMENT DUE
Module 14 12/7 – 12/13	Course Wrap-up, Future directions and office hours		Adapted Positioning & Mobility Device Training Plan Due 12/12 Final Class Survey & Final Project VIA Submission Due 12/13

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/) (<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/) (<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/) (<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/) (<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 viahelp@gmu.edu or <https://cehd.gmu.edu/aero/assessments>.
- 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/) (<https://its.gmu.edu/knowledge-base/blackboard-instructional-technology-support-for-students/>).

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

As a faculty member, I am designated as a “Non-Confidential Employee,” and must report all disclosures of sexual assault, sexual harassment, 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 the [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 or support measures from Mason’s Title IX Coordinator by calling 703-993-8730, or emailing titleix@gmu.edu.

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/) (<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 evidence-based strategies to develop personalized supports for individuals with exceptional needs across environments, settings, and the life span.	Candidate fails to identify adapted positioning/functional mobility device(s) developed to provide personalized supports for individuals with physical needs.	Candidate identifies and introduces adapted positioning/functional mobility device(s) designed to provide personalized supports for individuals with physical needs.	Candidate identifies and reviews adapted positioning/functional mobility device(s) designed to provide personalized supports for individuals with physical 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.