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

Fall 2024
EDAT 526 DL1: Adapted Positioning and Functional Mobility.
CRN: 75968, 3 – Credits

Instructor: Cindy George	**Meeting Dates:** 8/26/24 – 12/18/24
Phone: 571-230-7854	**Meeting Day(s):** N/A
E-Mail: cgeorge4@gmu.edu	**Meeting Time(s):** N/A
Office Hours: by appointment only	**Meeting Location:** N/A; Online
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 their LMS (Learning Management System).**

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 your LMS

This course will be delivered online (76% or more) using an asynchronous format via Mason's Learning Management system (LMS). You will log in to the course site using your Mason email name (everything before @masonlive.gmu.edu) and email password. The course site will be available on Monday, August 26 at 8:00 PM EST. To access your course in Blackboard Learn: https://mymasonportal.gmu.edu/

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 updated browsers.
    - Blackboard Learn supported browsers: https://help.blackboard.com/Learn/Student/Ultra/Getting_Started/Browser_Support
    - Canvas supported browsers: https://guides.instructure.com/a/720329]
- Consistent and reliable access to GMU email and the course LMS, as these are the official methods of communication for this course.
- Note that 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.

Expectations

- Course Week:
  Because asynchronous courses do not have a "fixed" meeting day, our week will start on Wednesday and finish on Tuesday.
- Log-in Frequency:
  Students must actively check the course LMS 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.

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.

Mason library provides a digital copy for students if you wish

Course	Title	Link
EDAT 526 DL1	ASSISTIVE TECHNOLOGIES	https://doi-org.mutex.gmu.edu/10.1016/C2016-0-02627-X

Recommended Texts

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

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

Course Performance Evaluation

Students are expected to submit all assignments on time in the manner outlined by the instructor (e.g., LMS, 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/SLL (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/SLL.

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

Assignments and/or Examinations

Performance-based Assessment
(VIA submission required)
N/A

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
- Materials list
- 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. The 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*
  - *Data collection* plan
  - 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

Assignment Summary

Assignment	Due Date	Points Possible
Module Learning Activities	End of module	50 points
Adapted Positioning or Functional Mobility Device	Proposal 10/24 Project 11/7	20 points
Adapted Positioning & Mobility Device Training Plan	12/11	30 points
Total Points:		100 points

Student Evaluations of Teaching:
The student evaluation of teaching, or SET, is an online course survey. You are strongly encouraged to complete this form for each course as this feedback helps instructors and administrators improve your class experiences. Towards the end of the course, you will receive email and LMS notifications when the evaluations open. Your anonymous and confidential feedback is only shared with instructors after final grades have been submitted. More information about the SET can be found on The Institute of Effectiveness and Planning website at https://oiep.gmu.edu/set/

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:** George Mason University Academic Standards will be strictly enforced *through an institutional sanctioning matrix that all colleges and departments will need to adhere to if they find there are students who are engaged in academic dishonesty.* See Academic Standards (http://academicstandards.gmu.edu/) and GMU Catalog - Academic Standards (https://catalog.gmu.edu/policies/academic-standards/) Students are responsible for reading and understanding the Standards. The Office of Academic Integrity "works to promote authentic scholarship, support the institution's goal of maintaining high standards of academic excellence, and encourages continued ethical behavior of faculty and students to cultivate an educational community which values integrity and produces graduates who carry

this commitment forward into professional practice." Work submitted must be your own new, original work for this course or with proper citations.

Professional Dispositions

Throughout study in the College of Education and Human Development, students are expected to demonstrate behaviors that reflect the positive dispositions of a professional. See Student Guide (https://cehd.gmu.edu/current-students/cehd-student-guide).

Use of Generative AI

Generative AI tools should follow the principles of Mason's Academic Standards. This includes being honest about the use of these tools for submitted work and including citations when using the work of others, whether individual people or Generative AI tools.

Other AI Information

Mason is an Honor Code university; please see the Office for Academic Integrity for a full description of the code and the honor committee process. Use of Generative-AI tools should follow the fundamental principles of the Honor Code.

Class Schedule

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

MODULE	TOPIC	READING	ASSIGNMENT DUE
Module 1 8/28 – 9/3	**Human Anatomy & Physiology**	*Med.Libretext.org* Defining Anatomy; Defining Physiology	Module 1 Learning Activities
Module 2 9/4 – 9/10	**Human Developmental Stages & Functional Abilities**	*Cook & Polgar* (2019) pp. 35–38, 97–100 *OpenStax* (2014) Stages of Development Chapter 9.3	Module 2 Learning Activities

MODULE	TOPIC	READING	ASSIGNMENT DUE
Module 3 **9/11 – 9/17**	**Typical vs. Atypical Development** **Etiology Pathology & Characteristics of Diagnoses**	*Cook & Polgar* (2019) pp. 138-140, 412–418	Module 3 Learning Activities
Module 4 **9/18 – 9/24**	**Intervention Services**	*Cook & Polgar* (2012) Chapter 1, pp. 1–14	Module 4 Learning Activities
Module 5 **9/25 – 10/1**	**Medical Support Devices: Orthotics & Prosthetics**	*Chui* et al. (2019) Chapter 1	Module 5 Learning Activities
Module 6 **10/2 – 10/8**	**Medical Support Devices: Ambulation**	*Oostema & Simpson* (2018) Walk on: Decision making for functional ambulation	Module 6 Learning Activities
Module 7 **10/9 – 10/15**	**Medical Support Devices: Standing & Transfers**	*National Center for Biotechnology Information* (2020) Patient care transfer techniques	Module 7 Learning Activities
Module 8 **10/16 – 10/22**	**Seating & Mobility: Positioning**	*Cook & Polgar* (2019) Chapter 10	Module 8 Learning Activities

MODULE	TOPIC	READING	ASSIGNMENT DUE
Module 9 **10/23 – 10/29**	**Seating & Mobility: Manual Wheelchairs**	*Cook & Polgar* (2019) Chapter 11, pp. 224–238	Module 9 Learning Activities **Adapted Positioning or Functional Mobility Device proposal** Due 10/29
Module 10 **10/30 – 11/12** (2 week)	**Seating & Mobility: Electric Wheelchairs** **Adapted Positioning or Functional Mobility Device**	*Cook & Polgar* (2019) Chapter 11, pp. 238–257	Module 10 Learning Activities **Adapted Positioning or Functional Mobility Device** Due 11/12
Module 11 **11/13 – 11/19**	**Accessible Transportation: Adapted Vehicles & Passengers**	*Cook & Polgar* (2019) Chapter 12, pp. 258–270	Module 11 Learning Activities
Module 12 **11/20 – 11/26**	**Accessible Transportation: Driver**	*Cook & Polgar* (2019) Chapter 12, pp. 270–277	Module 12 Learning Activities
Module 13 **11/27 – 12/3**	**Medical Support Devices: Sleeping & Bed** **Adapted Positioning & Mobility Device Training Plan**	*Cook & Polgar* (2019) Chapter 5	Module 13 Learning Activities Plan Development

MODULE	TOPIC	READING	ASSIGNMENT DUE
Module 14 **12/4 – 12/17** (2 week)	**Course Wrap-up, Future directions and office hours**		**Adapted Positioning & Mobility Device Training Plan** Due 12/16 **Final Class Survey** **&** **Final Project VIA Submission** Due 12/17

CEHD Commitments

The College of Education and Human Development is committed to fostering collaboration and community, promoting justice and equity, and advancing research-informed practice. Students are expected to adhere to, and contribute to, these commitments, the CEHD Mission, and Core Values of George Mason University. More information can be found here: Culture (https://cehd.gmu.edu/about/culture/)

GMU Policies and Resources for Students

Policies

- Students must adhere to Mason's Academic Standards. See Academic Standards (https://catalog.gmu.edu/policies/academic-standards/).

- Students must follow the university policy for Responsible Use of Computing. See Responsible Use of Computing (http://universitypolicy.gmu.edu/policies/responsible-use-of-computing/).

- Students are responsible for the content of university communications sent to their Mason email account and are required to activate their account and check it regularly. All communication from the university, college, school, and program will be sent to students **solely** through their Mason email account.

- Students with disabilities who seek accommodations in a course must be registered with George Mason University Disability Services. Approved accommodations will begin at the time the written letter from Disability Services is received by the instructor. See Disability Services (https://ds.gmu.edu/).

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

Campus Resources

- Support for submission of assignments to VIA should be directed to viahelp@gmu.edu or https://cehd.gmu.edu/aero/assessments.
- Questions or concerns regarding use of your LMS should be directed to:
    - o Blackboard Learn: https://its.gmu.edu/knowledge-base/blackboard-instructional-technology-support-for-students/
    - o Canvas: https://its.gmu.edu/service/canvas/
- For information about student support resources on campus, see: https://ctfe.gmu.edu/teaching/student-support-resources-on-campus
    - o TimelyCare: https://caps.gmu.edu/timelycare-services/
    - o Writing Center: https://writingcenter.gmu.edu/

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.

Student and Faculty Names and Pronouns

Name and pronoun use: If you wish, please share your name and gender pronouns with me and indicate how best to address you in class and via email. I use [faculty insert your specific pronouns here] for myself and you may address me as "[YOUR NAME]", "Dr./Prof. [NAME]" or "Mr./Ms./Mx. [NAME]" in email and verbally. I encourage students to use tools Mason provides to change your name and pronouns on Mason records, if you so choose: https://registrar.gmu.edu/updating-chosen-name-pronouns/

Diversity and Inclusion Statement

The College of Education and Human Development, an intentionally inclusive community, promotes and maintains an equitable and just work and learning environment. We welcome and value individuals and their differences including race, economic/class status, gender expression and identity, sex, sexual orientation, ethnicity, national origin, first language, religion, age, and ability status, among other characteristics.

- We value our diverse student body and desire to increase the diversity of our faculty and staff.
- We commit to supporting students, faculty and staff who have been the victims of bias and discrimination.
- We promote continuous learning and improvement to create an environment that values diverse points of view and life experiences.
- We believe that faculty, staff, and students play a role in creating an environment that engages diverse points of view.
- We believe that by fostering their willingness to hear and learn from a variety of sources and viewpoints, our students will gain competence in communication, critical thinking and global understanding, and become aware of their biases and how they affect their interactions with others and the world.

Land Acknowledgement Statement

Land acknowledgment engages all present in an ongoing indigenous protocol to enact meaningful, reciprocal relationships with ancestors and contemporary tribal nations. As a state university, we have a responsibility to include and support indigenous communities and sovereign tribes in our work.

At the place George Mason University occupies, we give greetings and thanksgivings to these Potomac River life sources, to the Doeg ancestors, who Virginia annihilated in violent campaigns while ripping their lands apart with the brutal system of African American enslavement, to the recognized Virginia tribes who have lovingly stewarded these lands for millennia, including the Rappahannock, Pamunkey, Upper Mattaponi, Chickahominy, Eastern Chickahominy, Nansemond, Monacan, Mattaponi, Patawomeck, and Nottaway, past, present, and future, and to the Piscataway tribes, who have lived on both sides of the river from time immemorial.

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)

Adapted Device Training Plan

CRITERIA	NOT TO EXPECTATIONS	MEETS EXPECTATIONS	EXCEEDS EXPECTATIONS
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. (5 points)	Fails to describe & review custom-made adapted device designed to provide personalized supports for individuals with physical needs.	Describes & reviews custom-made adapted device designed to provide personalized supports for individuals with physical needs.	Describes & reviews custom-made adapted device designed to provide personalized supports for individuals with physical needs across environments, settings and life span.
User Characteristics & Needs Provides a rationale for selecting the individual(s) for which the training is designed. A listing of the user and trainee prerequisite skills and needs they have for using the device will be outlined and considerations should be addressed. (5 points)	Fails to provide rationale, prerequisites & characteristics of both users who could benefit from custom-made adapted device and the trainees.	Provides rationale, prerequisites & characteristics of both the users who could benefit from custom-made adapted device and the trainees.	Provides rationale, prerequisites & characteristics of both users who could benefit from the adapted device and the trainees based on their understanding of exceptional conditions or other human factors.
Customized Training: Designs and implements a training customized specifically for a user. (5 points)	Fails to identify & match the custom-made adapted device to a potential user based on individual and environmental needs.	Identifies & matches the custom-made adapted device to a potential user based on individual and environmental needs.	Identifies & matches the adapted device to a potential user based on individual & environmental needs, personal interests, values & preferences.

CRITERIA	NOT TO EXPECTATIONS	MEETS EXPECTATIONS	EXCEEDS EXPECTATIONS	
The 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* – *Data collection* plan Additional *resources* for the user to take with them following the training. (7 points)	Fails to apply knowledge & skills to identify user/trainee needs and develop and provide a training for introducing the custom-made adapted device; monitoring the outcome and considering the potential for needing adjustments.	Applies knowledge & skills to identify user/trainee needs and develop and provide a training for introducing the custom-made adapted device; monitoring the outcome and considering the potential for needing adjustments.	Applies knowledge & skills to identify user/trainee needs and develop and provide a training for introducing the custom-made adapted device; monitoring the outcomes, considering the potential for needing adjustments & training that is meaningful and useful to individuals with exceptional needs as well as their families, and community of support.	
<u>Video Demonstration</u>: 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. (5 points)	Fails to provide evidence of training knowledge & demonstrates proficiency in use of a customized adapted devices.	**CRITERIA**	NOT TO EXPECTATIONS	**MEETS EXPECT**
CRITERIA	**NOT TO EXPECTATIONS**	**MEETS EXPECTATIONS**	**EXCEEDS EXPECTATIONS**	

<u>Reflection:</u> Provides a reflection on the implementation of the device training from both the trainer and the trainee. (3 points)	Fails to promote and advocate for the benefits of continued implementation of adapted device supports and strategies for individuals with exceptional needs.	Promotes and advocates for the benefits of continued implementation of adapted device supports and strategies for individuals with exceptional needs.	Promotes and advocates for the benefits of continued implementation of adapted device supports and strategies for individuals with exceptional needs across a wide range of settings and based on various needs.