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

Fall 2016
EDAT 525 DL1: Software and Mobile Applications for Individuals with Disabilities
CRN: 73752, 3 - Credits

Instructor: Dr. Yoosun Chung	**Meeting Dates:** 08/29/16 - 12/20/16
Phone: (703) 988-3486 (text-relay-service)	**Meeting Day(s):** Asynchronous
E-Mail: ychung3@gmu.edu	**Meeting Time(s):** Asynchronous
Office Hours: by appointment	**Meeting Location:** Internet. All course materials are available through Blackboard Courses at http://mymason.gmu.edu.

> **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.*

Instructional Method
EDAT 525 is an asynchronous online course. Using Blackboard, students are expected to complete assignments weekly and be engaged in course activities throughout the semester.

Course Description
Provides overview with software, mobile applications, and accessibility features. Identifies design features to meet individual's special needs; provides hands-one experiences with the range of software and mobile applications that incorporate evidence-based strategies for individuals with disabilities across environments, settings and the life span. Field experience <u>may be</u> 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. Learning module lectures, discussion, and participation
2. Software and hardware demonstrations
3. Group and independent laboratory exploration activities
4. Direct AT service interactions
5. Class presentations

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 the posted start date of the course.

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/
- A headset microphone for use with the Blackboard Collaborate web conferencing tool

EXPECTATIONS:

- **Course Week:** Refer to the asynchronous bullet below is your course is asynchronous or the synchronous bullet if your course is synchronous.
  - ➢ **Asynchronous:** Because online courses do not have a "fixed" meeting day, our week will **start** on **Tuesday**, and **finish** on **Monday**.
- **Log-in Frequency**: Refer to the asynchronous bullet below is your course is asynchronous or the synchronous bullet if your course is synchronous.
  - ➢ **Asynchronous:** Students must actively check the course Blackboard site and their GMU email for communications from the instructor, at a minimum this should be 2 times per week.
- **Participation**: Students are expected to actively engage in all course activities throughout the semester, which include viewing of all course materials, completing course activities and assignments, and participating in course discussions and group interactions.
- **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.
- **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.
- **Workload**: Expect to log in to this course **at least two times a week** to read announcements, participate in the discussions, and work on course materials. Remember, this course is **not** self-paced. There are **specific deadlines** and **due dates** listed in the **CLASS SCHEDULE** section of this syllabus to which you are expected to adhere. It is the student's responsibility to keep track of the weekly course schedule of topics, readings, activities and assignments due.

Netiquette: Our goal is to be **collaborative**, not combative. Experience shows that even an innocent remark in the online environment can be misconstrued. I suggest that you always re-read your responses carefully before you post them to encourage others from taking them as personal attacks. **Be positive in your approach to others and diplomatic with your words.** I will do the same. Remember, you are not competing with each other but sharing information and learning from one another as well as from the instructor.

Field Experience Requirement

A Field Experience <u>may be</u> 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.

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, Assistive Technology, Early Childhood Special Education, Early Childhood Education PK-3, Dual Licensure Early Childhood Education PK-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. 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. Define legislative mandates and governmental regulations related to accessibility of software and mobile applications.
2. Identify built-in accessibility features available in a variety of stationary and mobile platforms.
3. Gather and organize software and mobile applications resources.
4. Identify software and mobile applications features for individuals with disabilities.
5. Design and create a software program or mobile application prototype with accessibility features supported by the rationale for the prototype and its features.
6. Propose a plan for continuous data collection to evaluate the outcomes, reevaluation, and adjusting the system as needed.

Required Textbooks

Ault, M., & Bausch, M. (2012), *Apps for all students: A teacher's desktop guide*. Arlington, VA: TAM CEC

Additional Readings

Readings relevant to the evaluation of software and mobile applications are provided by the instructor, including research articles and links to vendor websites. All course materials are available on the Blackboard site.

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.
EDAT 525 is an asynchronous online course. All course materials are available on the course Blackboard site, http://mymason.gmu.edu. Using Blackboard, students are expected to complete assignments weekly and be engaged in course activities throughout the semester.

Late Work.

In fairness to students who make the effort to submit assignments on time, there will be a 10% cost reduction per day for late assignments. (For example, a 10 point assignment will lose 1 point per day while a 40 point assignment will lose 4 points per day). At the instructor's discretion, students may be given the opportunity to resubmit an assignment. Resubmitted assignments are not eligible for full credit and a response cost of 10 percent will be assessed. Please note that assignments worth 1 point that are submitted late will receive a score of 0.

Course Expectation.

- It is expected that students have continual access to a high-speed Internet connection and an active GMU email account for the duration of this course.
- Students are expected to be familiar with Blackboard features including downloading materials and submitting assignments. Students are expected to know their Blackboard username and password and to actively monitor the email account that is currently registered in Blackboard. Students who are experiencing problems using the Blackboard system must contact the instructor prior to the date an assignment is due for assistance.
- Please type ALL assignments unless otherwise noted. Please contact the instructor if you are using a word processing program other than Microsoft Word.
- All assignments must be posted to the Discussion Board or submitted through the "Assignment" session in Blackboard by 11:59 pm on the day the assignment is due (unless otherwise noted by the instructor) to be considered for full credit. Please note that Blackboard places a timestamp on all submitted material. If Blackboard is down for any reason at the time an assignment is due, you should email a copy of your assignment to the instructor. However, you should only email the instructor your assignment if Blackboard is down. If you not available on the day an assignment is due, you are expected to submit that assignment early to be considered for full credit.
- All assignments should reflect graduate-level spelling, syntax, and grammar and will be graded accordingly. If you experience difficulties with the writing process you will need to document your work with the GMU Writing Center during this course to improve your skills.
- All references including Online references must be cited in proper APA format to avoid plagiarism (cut&paste is easy to do from the Internet).

Instructor – Student Communication.

The easiest and best way to contact me is through email. I will respond to your emails within 48 hours, if not sooner, on weekdays. IF I will be away from email for more than one day, I will post an announcement on Blackboard.

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 (*NO ASSESSMENT REQUIRED FOR THIS COURSE*) 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:

Weekly Online Modules………………………………..50
Software Program/App Development …………………20
Software Program/App Assessment ……………………..30
_____
TOTAL POINTS………………………………………..100

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

95-100 = A
90-94 = A-
85-89 = B
80-84 = B-
70-79 = C
 < 70 = F

Assignments

Performance-based Assessment (Tk20 submission required).
No Performance-based Assessment assignment for this course.

Performance-based Common Assignments (No Tk20 submission required).
Courses with multiple sections often require "common" assignments across sections to ensure consistency in instruction and learning. This course does not require the use of a common assignment(s). All course assignments are outlined in the *Other Assignments* section.

Other Assignments.

Weekly Online Modules (50 points) – Due Monday of that week
Students must access online class on Blackboard weekly and complete posted activities for all classes. Posted activities will include PowerPoint presentations of content, Internet search/research assignments, video exploration and viewing, community exploration, response tasks and construction activities. All weekly activities are due by Monday, 11:59pm of that week.

Note: Some activities are required to interact with classmates. In this case, the original posting should be posted by Saturday, 11:59pm of that week. The responses to other classmates should be posted by Monday, 11:59pm of that week.

Software Program/App Development (20 points) – Due October 31
Students will design and develop a software program/app that is appropriate for individuals with disabilities. Students can choose to use one of several authoring programs, which include PowerPoint, Pixie 4, Clicker 7, Boardmaker and Clasroom Suite 4. Software programs/apps will be evaluated based on layout quality and consistency, program content, appropriate use of student and teacher features, and accessibility through alternate access methods. Students will also create an offline activity that can be used in conjunction with the software program. The operation of software/app can be simulated using PowerPoint templates with interactive components. The final product will include: (a) rationale/storyboard; (b) software program/app; (c) offline activity; and (d) presentation.

Software Program/App Assessment (30 points) – Due December 12

Students will identify an individual with a disability to conduct a software/app assessment. Based on the individual's learning needs, students will select 2-3 pieces of software/app to use with the individual over a period of time. Using a developed data collection method, students will instruct, observe, and evaluate the individual using the software program/app. Students will then write a brief assessment report identifying the strengths and limitations of the software programs/app (including access methods, data reporting options, and other software features). The report will also include 2-3 recommendations for other software programs that would be appropriate for the individual. The recommendations should include a brief program description, vendor information, and price. The final project will also include a detailed plan for data collection in order to monitor the outcomes, reevaluate, and adjust the software/app features.

    a.   Software/App Overview
Candidate provides a description of the pre-selected software and/or mobile apps. The description should include the purpose of the software/apps, their features, and their vendor/contact information.
    b.   User Characteristics & Needs
Candidate provides a rationale for selecting the user/individual(s) for who they are designing the training. A listing of the user's prerequisite skills as well as the needs they have for potentially using the AT 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.
    c.   Evaluation Trials
Candidate conducts evaluation trials with the individual using identified software/apps to determine technology potential. Data sheets noting user/client trial abilities/limitations while using technologies, preferences for specific technologies, and technology access placement and positioning will be completed and used to appraise the use of each software/app. The plan will be developed to monitor the outcomes, reevaluate, and adjust the software/app features.
    d.   Customized Training
Candidate designs a training plan customized specifically for the user that is to be trained. The plan should include: *goal(s)* of the 1 hour training, *objectives* for each section or topic being trained and allocated *timeframe* for each, a listing of training *materials*, *procedural steps* for the training that integrate *evidence-based strategies* and *data* collection, and additional *resources* for the user to take with them following the training.
    e.   Demonstration

Candidate records a 2-3 minute video documenting a portion of the training that shows the candidate demonstrating the use of the software/app. The video will accompany the Instructional Plan write-up as evidence the candidate has proficiency in AT use.

    f.   Reflection

Candidate provides a reflection on the implementation of the software/app training from both the candidate/instructor and the user/student 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 the candidate/trainer needs might require to provide additional training.

    g.   Community Impact

Candidate discusses the potential impact their software/app training could have on individuals with disabilities, their families, and communities across environments, settings and life span.

Online Discussions

The **Online Discussion** is the heartbeat of this course. We will be sharing experiences, opinions, questions, etc. on the Discussions Board. To consider for full participation, **not only** you submit your original posting, **but also** you need to interact with *at least two classmates* during that week's assigned assignment. Posted messages should be significant - helping the discussion move forward. There are a variety of ways to do this, including:

•   Providing concrete examples, perhaps from your own experience
•   Describing possible consequences or implications
•   Posing a clarifying question
•   Suggesting a different perspective or interpretation
•   Pulling in related information from other sources – books, articles, websites, other courses, etc.

The original posting should be posted by Saturday, 11:59pm of that week. The responses to other classmates should be posted by Monday, 11:59pm of that week. Your participation score for a given week will be based on the timelessness, the quality of your postings to that discussion, and interactivity. You will find a detailed rubric on Blackboard.

Schedule
Tentative Class Topics and Due Dates
(Subject to change for any unforeseen interruptions)

Module	Topic/Learning Activities	Textbook Readings*, **Weekly Activities**
Module 1 8/30 – 9/5 **Module 2** 9/6 - 9/12	Introduction • Exploring software and mobile applications • What makes a piece of software "special"? • What are learners' characteristics/areas of need?	Chapters 1 & 2 **Getting to Know You Assignment** **Learning Module Activities**

Module 3 9/13 – 9/19 Module 4 9/20 - 9/26	Evaluating Educational Software and Mobile Apps • Demonstration and review of existing educational software and mobile apps • Software and App Evaluation Checklist • Matching software and apps with user characteristics	Chapters 3, 4 & 5 **Learning Module Activities**
Module 5 9/27-10/3 Module 6 10/4 -10/10	Software and App Exploration Beyond Education • Demonstration and review of switch software, scanning, life skills software and apps • Online/Offline Connection	Chapters 6 & 7 **Learning Module Activities**
Module 7 10/11-10/17	Software/App Design/Authoring Tools • Storyboarding • Screen design • Screen development, • Including accessibility features in design • Begin review of authoring programs	**Learning Module Activities**
Module 8 10/18-10/24 Module 9 10/25– 10/31	Authoring Tools • Pixie 4 • Clicker 7 • Boardmaker • Classroom Suite 4	**Learning Module Activities** **Software Program/App Development (Due 10/31) – 20 pts**
Module 10 11/1-11/7	Built-in Accessibility Features in a Variety of Stationary and Mobile Platforms • What are built-in accessibility features? • Are they supported by software and apps	**Learning Module Activities**
Module 11 11/8– 11/14 Module 12 11/15-11/21	Data Collection to Determine Outcomes, Usability, and Possible Revisions	**Learning Module Activities** **Data Collection Plan Draft**
Module 13 11/22-11/28	Open Topic	**Learning Module Activities**
11/29-12/12	Final Project Development Period	**Software Program/App Assessment including Data Collection/Revision Plan (Due 12/12) – 30 pts**

* Additional readings will be provided by the instructor in the Weekly Learning Modules.