

George Mason University
Assistive Technology Certificate Program
Kellar Institute for Human disAbilities
Summer 2013

Software for Individuals with Special Needs
EDIT 425 and EDIT / EDSE 525 Section XT1 (2 Credit Hours)

SCHEDULE

This course meets from June **6-3-13 to 7-25-13** via the Internet

INSTRUCTOR

Dr. Tara Jeffs
252-321-0108 (cell)

tjeffs@gmu.edu (best reached by email)

Online Office Hours: Wednesday 7-9pm or email or call
for an appointment to do Skype, Google Hangout ☺

COURSE DESCRIPTION

Provides software evaluation and design for individuals with disabilities. Students will create a software program using existing authoring tools for a person with a disability. Class components may be delivered via distance education.

NATURE OF COURSE DELIVERY

This course consists of a variety of delivery modes to include lecture, product demonstration, hands-on lab experiences, software design & development, and direct, client-based service interactions.

COURSE OBJECTIVES

At the completion of this course, students will be able to:

1. gather and organize software resources.
2. identify software features for individuals with disabilities.
3. design a software program with accessibility features.
4. create a software program with accessibility features.
5. outline and defend their software program and its use.

REQUIRED READING

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- The instructor will provide handouts and Internet sites. All course materials are available on the course Blackboard site, <https://mymasonportal.gmu.edu> .

RELATIONSHIP OF COURSE TO PROGRAM GOALS AND PROFESSIONAL ORGANIZATIONS

EDSE 525 is part of the George Mason University, Graduate School of Education, an Special Education Program for teacher licensure in the Commonwealth of Virginia in the special education. The program aligns with the standards for teacher licensure established by the Council for Exceptional Children, the major special education professional organization in the United States. As such the curriculum for the course includes competencies for teaching students with disabilities from preschool through grade 12.

COLLEGE OF EDUCATION AND HUMAN DEVELOPMENT STATEMENT OF EXPECTATIONS

All students must abide by the following:

- Students are expected to exhibit professional behavior and dispositions. See <http://gse.gmu.edu> for
- a listing of these dispositions.
- Students must follow the guidelines of the University Honor Code. See http://www.gmu.edu/catalog/apolicies/#TOC_H12 for the full honor code.
- Students must agree to abide by the university policy for Responsible Use of Computing. See
- <http://mail.gmu.edu> and click on Responsible Use of Computing at the bottom of the screen.
- Students with disabilities who seek accommodations in a course must be registered with the GMU
- Disability Resource Center (DRC) and inform the instructor, in writing, the first week of class. See www.gmu.edu/student/drc or call 703-993-2474 to access the DRC

GRADING CRITERIA

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

Assignment 1: **Module Learning Activities** components for a total of 60 points

Assignment 2: **Implementation Project** components for a total of 40 points

Total Possible Points 100 points

Grading Scale	
100-95	A
94-90	A-
89-86	B+
85-83	B
82-80	B-
79-70	C
<70	F

All assignments must be completed to receive a final grade.

DETAILED COURSE OUTLINE

Module	Dates	Topic/ Learning Activities	Assignment Due
1 Introduction	June 3-9	Topic Introduction- <ul style="list-style-type: none"> -What makes a piece of software `special`? What is meant by an accessibility feature? Learner characteristics /areas of need 	Please refer to the document "Module One Learning Activities" located on Blackboard. The Getting to Know You assignment is due Due 6-9-13
2 Exploring educational software with accessibility	June 10 -16	Topic: Software Exploration (Part A) <ul style="list-style-type: none"> Demonstration and review of existing educational software Matching software with use characteristics 	Please refer to the document "Module Two Learning Activities" located on Blackboard. All assignments are Due 6-17-13
3 Software Exploration Continued	June 17-23	Topic: Software Exploration (Part B) <ul style="list-style-type: none"> Demonstration and review of special needs software including switch software, scanning, and life skills Online/offline Connection 	Please refer to the document "Module Three Learning Activities" located on Blackboard. All assignments are Due 6-28-13
4 Software Design/Authoring Tools	June 24-30	Topic: Software Design/Authoring Tools <ul style="list-style-type: none"> <input type="checkbox"/> Flow charting <input type="checkbox"/> Screen design <input type="checkbox"/> Screen development <input type="checkbox"/> Including accessibility features in design <input type="checkbox"/> Begin review of authoring programs 	Please refer to the document "Module Four Learning Activities" located on Blackboard. All assignments are Due 7-5-13
5 Authoring Tools	July 1-7	Topic: Authoring Tools <ul style="list-style-type: none"> <input type="checkbox"/> IntelliTools <input type="checkbox"/> PowerPoint <input type="checkbox"/> Pixie, KidPix <input type="checkbox"/> Clicker 5 & Clicker Paint 	Please refer to the document "Module Five Learning Activities" located on Blackboard. All assignments are 7-12-13
6 & 7 Final project development	July 8-24 July 15-21	Final project development Independent work on final project	Final Projects Final Project submitted to Blackboard Due 7-18-13

ASSIGNMENTS

Assignment Expectations

- 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 **(June 3-July 25)**.
- This semester we will be using Blackboard. Students login to Blackboard through my Mason Portal at <https://mymasonportal.gmu.edu>. The User Name is the first part of your Mason email address and the same password that you use to access your Mason email account. If you cannot log in or are having technical difficulties, please direct any technical problems to the ITU Support Center at 703-993-8870 or support@gmu.edu
- All course materials are available on the course Blackboard site, <https://mymasonportal.gmu.edu> 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 their gmU email account. Students who are experiencing problems using the Blackboard system must contact the instructor prior to 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. Or if you are using a Mac OS.
- All assignments must be posted to the Discussion Board or submitted through the "Assignment Upload Link" in Blackboard by **6pm** 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.
- 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 1point 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.
- Due to nature of the course delivery, the instructor anticipates that at times students may feel stressed to complete all courses assignments in the given format and within the accelerated timeframe. Therefore, students are able to request a onetime extension on any one assignment within Modules One through Five.
 - The following rules apply to the no-cost extension:
 - ✓ Students must request the extension to the instructor via email (tjeffs@gmu.edu) at least 24 hours prior to the day (6:00 pm) the assignment is due. Therefore if

an assignment is due on June 21, you must email your request by 6:00 pm on June 20. Students must specify the exact assignment they wish to apply the extension.

- ✓ The extension will enable the student to submit the assignment up to seven days past the initial due date. For example, if an assignment is due on June 21, it will now be due on June 28. (due dates correspond with the end of each module).
 - ✓ Assignments granted extensions are eligible for full credit. However, if the assignment is not submitted by the extension due date, students will receive a zero for that assignment.
 - ✓ No-cost extensions are only granted one time and are only applicable for one assignment. All other late assignments will be subject to the response cost outlined in this syllabus.
 - ✓ **No-cost extensions cannot be applied to the Final Project**
 - ✓ 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- **DON'T DO IT WITHOUT PROPERLY CITING THE SOURCE!**)

Assignment 1: Module Learning Activities (60 points) Due: End of Each Learning Module

The course is divided into learning modules. Each module lasts for 7 days. Within Module One through Five, students will complete a set of learning activities. These activities include course readings, website reviews, software explorations, and personal reflections. Students are expected to summarize, analyze, evaluate, and reflect on the presented course material. Assignments include posting reflections to various forums on the Discussion Board as well as submitting written assignments through the Upload Assignment Link on Blackboard. Module Learning Activity assignments are graded on a 1 point, 5 point, or a 10 point scale for a total of 60 points. The number and type of assignments vary within each module. A complete description of the Module Learning Activities including expectations and the point scale of the graded assignments for that module is posted within each Module section on the Blackboard course site. Please note, the Module Learning Activities description and assignments will be made available at least one week prior to the start of module. At the start of the class, Modules One and Two are available on Blackboard. Module Three will be available by June 15, Module Four by June 22, and Module 5 by June 29.

Assignment 2: Software Implementation Project (40 points) Due:

For the final project, students will apply their knowledge of software for individuals with special needs. Since students' professional interests and technical knowledge vary, students will choose to **complete one of two possible final project options** that best meet their interests. Furthermore, students will present their project (via Blackboard) to their peers on the final day of class.

Option 1: Develop a software program

Students will design and develop a software program that is appropriate for individuals with disabilities. Students can choose to use one of several authoring programs, which include PowerPoint, Clicker 5, Hyperstudio, IntelliTools products, and Macromedia products (Authorware or Director). UDL Book Builder, Tar Heel Reader, BoardMaker Plus or Studio, Pixie. The project must be original not downloaded from a share site. Software programs 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 final project will be evaluated based on the following criteria.

- ✓ Rationale/Storyboard **5 pts.**
- ✓ Software Program **20 pts.**
- ✓ Offline Activity **10 pts.**
- ✓ Presentation **5 pts.**

TOTAL 40 pts.

OR

Option 2: Software assessment

Students will identify an individual with a disability to conduct a software assessment. Based on the individual's learning needs, students will select 2-3 pieces of software to use with the individual over a 3-5 day period. Using a developed data collection method, students will instruct, observe, and evaluate the individual using the software program. Students will then write an assessment report identifying the strengths and limitations of the software programs (including access methods, data reporting options, and other software features). The report will also include 2-3 recommendation for other software programs that would be appropriate for the individual. The recommendations should include a brief program description, vendor information, and price. Students will also create an offline activity for at least one of the software programs used during the assessment. Students will present the highlights of their software assessment and their offline activity.

- ✓ Rationale/data collection method **5 pts.**
- ✓ Assessment Report **20 pts.**
- ✓ Offline Activity **10 pts.**
- ✓ Presentation **5 pts.**

TOTAL 40 pts.

* Please note, due to the time requirements needed to conduct an assessment, it is recommended that students submit their proposal early for review.

Student Name:			
Due Date	Assignment	Points	Comments
7-7-13 students submitted the rationale for their project to the "Final Project Rationale" upload assignment link, located in the Final Project section of Blackboard.	Final Project Rationale	/5 points	
Option 1: Develop a software program			
<p>Students should submit a 1-2 paragraph description of their final project plan. They should identify the program they plan to use, the target audience, and the educational goals for their authored program. Students should also briefly discuss their personal goals for the final project, meaning what you hope to learn/practice using the selected authoring program. Students will also submit a storyboard of their authored software. Storyboards should provide a sketch of the visual layout of each screen including content and multimedia elements as well the menu and navigation elements. Storyboards should also include a brief narrative that explains the content, multimedia, and navigation elements in more detail if not apparent from the visual sketch. For those completing option one, there are several choices for submitting your storyboard including scanning hand drawn storyboards or using electronic programs such as Word or PowerPoint. However, the storyboard must be submitted in electronic format.</p> <p>Significant changes including a different rationale, different authoring software program (or assessment plan), or major change to design features will warrant a resubmission via email and approval of the rationale component of the final project prior to July 12 to be considered for full credit, otherwise the rationale section will receive a zero. The data sheet will be used during the software trials and should provide evidence that the client does or does not meet your criteria/benchmarks for success. Please note that a pre-existing data evaluation form does not count as a data sheet for this assignment; you are expected to establish your own criteria for success and develop your own data collection instrumentation.</p>			
OR			
Option 2: Software assessment			
<p>Students will provide a brief description of the individual with a disability with whom they will conduct a software assessment and specify the reasons they believe an assessment would be beneficial. Students will identify the 2-3 pieces of software they will use with the individual over a 3-5 day period. Students will also describe specifically how they will evaluate success (what are the criteria/benchmarks you are looking for) and include an assessment rubric/data collection sheet that they have developed for this assignment. Significant changes including a different rationale, different authoring software program (or assessment plan), or major change to design features will warrant a resubmission via email and approval of the rationale component of the final project prior to July 12 to be considered for full credit, otherwise the rationale section will receive a zero. The data sheet will be used during the software trials and should provide evidence that the client does or does not meet your criteria/benchmarks for success. Please note that a pre-existing data evaluation form does not count as a data sheet for this assignment; you are expected to establish your own criteria for success and develop your own data collection instrumentation.</p>			

Student Name:			
Due Date	Assignment	Points	Comments
7-21-13	Final Project	/20 Points	
<p>Option 1: Develop a software program</p> <p>Students can choose to use one of several authoring programs, which include PowerPoint, Clicker 5, Hyperstudio, IntelliTools products, and Macromedia products (Authorware or Director). UDL Book Builder, Tar Heel Reader, BoardMaker Plus or Studio, Pixie.</p> <p>Software programs will be evaluated based on layout quality and consistency, program content, appropriate use of student and teacher features, and accessibility through alternate access methods.</p>			
OR			
<p>Option 2: Software assessment</p> <p>Students will identify an individual with a disability to conduct a software assessment. Based on the individual's learning needs, students will select 2-3 pieces of software to use with the individual over a 3-5 day period. Using a developed data collection method, students will instruct, observe, and evaluate the individual using the software program. Students will then write an assessment report identifying the strengths and limitations of the software programs (including access methods, data reporting options, and other software features). The report will also include 2-3 recommendation for other software programs that would be appropriate for the individual. The recommendations should include a brief program description, vendor information, and price.</p>			

Student Name:			
Due Date	Assignment	Points	Comments
7-21-13	OFFLINE ACTIVITY	/10 Points	
<p>Students will create an offline product to support their developed software program (or one selected program if conducting an assessment). The off-line product should support or extend the content goal(s) of the software and/or provide instruction in/reinforcement of the access skills required for the program. There are several ways students can submit their offline activity including a digital picture(s) of your offline activity that clearly shows the activity and/or the electronic file of the program used to make the activity (Word, PowerPoint, BoardMaker, etc), along with an few sentence explanation describing what the completed activity looks like.</p>			

Student Name:			
Due Date	Assignment	Points	Comments
7-21-13	Blackboard Final Project Presentation	/5 points	
<p>Students are expected to submit a 3 paragraph description of their final project to the Final Project Presentation discussion board in Blackboard. The first paragraph provides an overview of your developed software project or assessment case The second paragraph provides an overview of the offline activity including the materials used to make it and how it can be used with the develop software program (or how it was use in the assessment case) Third paragraph provides a description of your overall experience with the project including important lessons learned, things you expected and did not expect, challenges you faced, and things you could do different/better in the future.</p>			