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

SCHEDULE

This course meets from 9/14-11/23 via the Internet

INSTRUCTOR

Marci Kinas Jerome, Ph.D.
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703-993-3681 (fax) Office Hours: by appointment

Mailing address: George Mason University
4400 University Dr., MS 1F2
Fairfax, VA 22030

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

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

RELATIONSHIP OF COURSE TO PROGRAM GOALS AND PROFESSIONAL ORGANIZATIONS

EDSE 525 is part of the George Mason University, Graduate School of Education, and 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.
## Detailed Course Outline

<table>
<thead>
<tr>
<th>Module</th>
<th>Dates</th>
<th>Topic/ Learning Activities</th>
<th>Assignment Due</th>
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| 1      | (M) Sept 14 - (M) Sept 21 | Topic: Introduction  
- 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 Sept 15; all others are due Sept 21. |
| 2      | (T) Sept 22 - (M) Sept 28 | Topic: Software Exploration (Week 1)  
- Demonstration and review of existing educational software  
- Matching software with user characteristics | Please refer to the document “Module Two Learning Activities” located on Blackboard. All assignments are due Sept 28. |
| 3      | (T) Sept 29 - (M) Oct 5 | Topic: Software Exploration (Week 2)  
- 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 Oct 5. |
| 4      | (T) Oct 6 - (M) Oct 12 | Topic: Software Design/Authoring Tools  
- Flow charting  
- Screen design  
- Screen development  
- Including accessibility features in design  
- Begin review of authoring programs | Please refer to the document “Module Four Learning Activities” located on Blackboard. All assignments are due Oct 12. |
- IntelliTools  
- PowerPoint  
- Pixie, KidPix  
- Clicker 5 & Clicker Paint | Please refer to the document “Module Five Learning Activities” located on Blackboard. All assignments are due Oct 19. |
| 6-9    | (T) Oct 20- (M) Nov 23 | Final project development | Independent work on final project |
| 10     | (M) Nov 23 | Final Projects | Final Project due to Blackboard on Nov 23. |

## 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 (Sept 14 – Nov 23).
- **This semester we will be using Blackboard CE6. Students login to CE6 at [http://courses.gmu.edu](http://courses.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. How-To Guides are available at: [http://irc.gmu.edu/CE6Transition/index.html](http://irc.gmu.edu/CE6Transition/index.html). 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, http://courses.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 the email account that is currently registered in Blackboard. 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.

• All assignments must be posted to the Discussion Board or submitted through the “Assignment Upload Link” 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.

• 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.

• 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 one time extension on any one assignment within Modules One through Five. The following rules apply to the no-cost extension:
  o Students must request the extension to the instructor via email (mkinas@gmu.edu) at least 24 hours prior to the morning (9:00 am) the assignment is due. Therefore if an assignment is due on Oct 12, you must email your request by 9:00 am on Oct 11. Students must specify the exact assignment they wish to apply the extension.
  o 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 Oct 12, it will now be due on Oct 19. (due dates correspond with the end of the next module).
  o Assignments granted an extension 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.
  o 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.
  o No-cost extensions can not 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).
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 Sept 22, Module Four by Sept 29, and Module 5 by Oct 6.

Assignment 2: Software Implementation Project (40 points) Due: Nov 23

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). 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. Students will present their software program and offline activity on Nov 23.

The final project will be evaluated based on the following criteria.

- Rationale/Storyboard (due Oct 19) 5 pts.
- Software Program 20 pts.
- Offline Activity 10 pts.
- Presentation 5 pts.
- TOTAL 40 pts.

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 on Nov 23.

- Rationale/data collection method (due Oct 19*) 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 earlier than Oct 19 for review.

**GRADING CRITERIA**

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

| Assignment 1: Module Learning Activities | 60 points |
| Assignment 2: Implementation Project     | 40 points |
| **Total Possible Points**                | **100 points** |

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<thead>
<tr>
<th>Grading Scale</th>
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<tr>
<td>100-95</td>
<td>A</td>
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<td>94-90</td>
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<td>89-86</td>
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<td>B-</td>
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<td>79-70</td>
<td>C</td>
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All assignments must be completed to receive a final grade.
Software for Individuals with Disabilities Fall 2009
Assignment Components

- Rationale (5 points):

Students are expected to have an established rationale and storyboard (or data collection procedure) in place by the end of Module 5. Since there are always changes between the design and implementation phases, it is anticipated that students may deviate slightly from their proposed plan. However, 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 Nov 23 to be considered for full credit, otherwise the rationale section will receive a zero.

For Option 1: 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.

By Oct 19, students will submit the rationale for their project to the “Final Project Rationale” upload assignment link, located in the Final Project section of Blackboard. 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.

For Option 2: 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 (please indicate the trials will occur) and discuss the setting in which the assessment will occur. 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. 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.

By Oct 19, students will submit the rationale for their project to the “Final Project Rationale” upload assignment link, located in the Final Project section of Blackboard. (Please note, due to the time requirements needed to conduct an assessment, it is recommended that students submit their proposal earlier than Oct 19 for review.)
Software Program /Assessment (20 points):

Students have several authoring programs to choose from for this assignment based on interest and program availability. Many vendors offer 30-45 day fully functional free trials of their programs. Students also may create programs using software on the GoToMyPC lab laptops. Directions for how to transfer and sync files are available in the Final Project folder. Students are referred to Module Five for more information on trial software availability. Students conducting software assessments have several options for selecting software for their assessments. Students are referred to Module Two. Software Review Assignment for more information on software availability. Please contact the instructor with any concerns.

By Nov 23, students will submit their final project (either software program or assessment report) to the “Software/Assessment” upload assignment link, located in the Final Project section of Blackboard. Please note authored software programs can have quite large file sizes. Please be mindful of your file size, you could experience problems submitting your file via Blackboard. It is strongly encouraged that you not wait until the last minute on Nov 23 to try to submit your file to Blackboard in case you run into problems. If you experience problems submitting your file to Blackboard, please send a copy of the file to edse525@gmail.com, NOT to the instructor’s GMU email. If the instructor cannot receive the file via Blackboard or Gmail, you will be expected to two day priority mail your final project on a CD to the instructor’s GMU address included in this syllabus, postmarked by Wednesday, Nov 24.

For Option 1: Students can choose to use one of several authoring programs, which include PowerPoint, Clicker 5, Hyperstudio, IntelliTools products, and Macromedia products (Authorware or Director). 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. There are no requirements for the number of pages or multimedia elements. Student projects will vary based on own creativity and program need.

For Option 2: 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 conducting software assessments should use pseudonyms in their reports instead of real client names.

Offline Activity (10 points):

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. Examples of offline activities are provided in Module Three. 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.
By Nov 23, students will submit their offline activity to the “Offline Activity” upload assignment link, located in the Final Project section of Blackboard.

- **Presentation (5 points):**

By Nov 23, students are expected to submit a 3 paragraph description of their Final Project to the Final Project Presentation discussion board on 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 developed software program (or how it was used in the assessment case), and the 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.
Student Name:

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<tr>
<th>Final Project Rationale (5 points, due Oct 19)</th>
<th>Points</th>
<th>Comments</th>
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<tr>
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<td>• Option 2: Students will provide a brief description of the individual with a disability with whom they will conduct a software assessment. 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 and include an assessment rubric/data collection sheet that they have developed for this assignment.</td>
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<th>Software Program Development (20 points)</th>
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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.

**Offline Activity (10 points)**
- 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.

**Blackboard Final Project Presentation (5 points)**
- 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 used 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.

**Total Number of Points (40 possible points)**