George Mason University
Graduate School of Education
Special Education Program

EDSE 517: Computer Applications for Special Populations
Course Syllabus – Spring 2010

Instructor: Jeff Sisk
Section #643: 4:30 to 8:30 pm Tuesdays
Location: Rocky Run Modular (Assistive Technology Computer Lab)
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Email: jeff.sisk@fcps.edu
Office Hours: By appointment, Dunn Loring Center

Most course information, lectures, and readings will be posted on Blackboard at
http://fcps.blackboard.com   Additional readings will be handed out in class.
There is no required textbook.

Course Description
This course is a lecture/laboratory course providing understanding of computer
technology and its implications for instructional programs and career skills for
students with disabilities. Laboratory and demonstration experiences will enable
students to better utilize devices and software in special education settings.

Nature of Course Delivery
Learning activities in this class will include the following:
1. Class lecture, discussion, and participation
2. Software and hardware presentations
3. Group and independent laboratory activities
4. Class presentations
5. Written papers using the American Psychological Association format (5th
   edition) http://apastyle.apa.org/

Student Outcomes
This course is designed to enable students to:
1. Describe a comprehensive set of procedures for software review and
   evaluation for specific populations
2. Implement a thorough set of procedures for software review and
   evaluation for specific populations
3. Describe key features to look for when performing software evaluation
4. Describe and utilize key software for specific populations
5. Demonstrate an ability to enhance written and/or spoken communication
   with a variety of technologies.
6. Demonstrate the use of technologies designed to aide in literacy activities

7. Demonstrate the use of different classroom management tools and discuss their applicability in different settings
8. Describe key features to look for when deciding on and using an augmentative and alternative communication device for an individual
9. Describe and utilize key devices and software tools designed to help individuals with sensory impairments
10. Describe and utilize key devices and software tools designed to help individuals with physical impairments
11. Describe a comprehensive yet brief understanding of the history of assistive technology
12. Describe and implement instructional considerations for internet design on own a content managed web site
13. Construct a classroom extension resource on the internet for use with a specific special education population
14. Design an appropriate technology integrated lesson plan for a specific special education population

Expectations for students

1. Students are expected to attend class sessions on time and actively participate in group discussions and activities. Excessive absences will result in missed lab assignments and decreased class participation points.
2. All out-of-class assignments are to be completed *prior* to the beginning of class on the date that they are due. If you are absent, the due date does not change, and students are responsible to make sure that all assignments are handed in on time. Late assignments will result in a reduction in points.
3. Assignments should reflect graduate level work
4. Students are reminded of the George Mason University honor system that is in effect at all times.

Graduate School of Education Syllabus Statements of Expectations

The Graduate School of Education (GSE) expects that all students 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, at the beginning of the semester. See www.gmu.edu/student/drc or call 703-993-2474 to access the DRC.

Statement to inform students they must keep their work (electronically if available), for use in their program portfolio.

For student evaluation, program evaluation, and accreditation purposes, students will be required to submit a signature assignment from each of their Special Education courses to Taskstream, an electronic portfolio system. In addition, students completing Midpoint and Final Portfolio courses will use Taskstream to create a full portfolio of their work based on assignments completed throughout their program. For this reason, students will need to retain electronic copies of all course products to document their progress through the GSE Special Education program. In addition to the signature assignment, products from this class can become part of your individual program portfolio used in your portfolio classes that documents your satisfactory progress through the GSE program and the CEC performance based standards.

Advising Contact Information:
Please make sure that you are being advised on a regular basis as to your status and progress through your program. You may wish to contact Jancy Templeton, GMU Special Education Advisor, at jtemple1@gmu.edu or 703-993-2387. Please be prepared with your G number when you contact her.

Assignments and Evaluations

Students will be evaluated on the following:

1. **Class and Lab Participation** as demonstrated by participation and utilization of lab time in an effective and efficient manner, and completion of in-class assignments handed in at the end of each class period. Each lab assignment is worth **2** points; the lowest grade or missed labs will be dropped from your final grade. **(18 points)**

2. **Software Evaluation (Due 1/19):** Students will choose a piece of software to review. A brief description of the software should precede a thorough evaluation and its possible application within a chosen environment. Late projects will be penalized. Please refer to the scoring rubric for additional information on this assignment. **(20 points)**

3. **Video Tutorial (Due 2/2):** Students will create a step-by-step video tutorial intended for guiding a new user with assistive technology software or hardware. Some tutorials will be presented in class. Late projects will be penalized. Please refer to the scoring rubric for additional information on this assignment. **(20 points)**

4. **Blackboard Design (Due 2/16):** Students will be responsible for designing their own accessible web page using their Fairfax County Blackboard.com accounts. Some web pages will be presented in class. Late projects will be penalized. Please refer to the scoring rubric for additional information on this assignment. **(20 points)**

5. **Assistive Technology Instructional Lesson (Due 3/2):** Students will design a lesson using an instructional or assistive technology of their choice. Some lessons will be presented in class. Late projects will be penalized. Please refer to the scoring rubric for additional information on this assignment. **(22 points)**

Students must provide an electronic copy of assignments by the start of class on the due date. The assignment will be submitted to the Blackboard Digital Drop Box .

Grade Scale (Scores are in percentages)

A	A-	B	B-	C	C-	D	F
93-100	90-92	83-89	80-82	73-79	70-72	60-69	<60

Tentative Class Schedule and Assignment Due Dates

Session Number	Date	Class Activities	Assignments and Due Dates
1	1/5	Lecture and Lab: Introduction to AT	
2	1/12	Lecture and Lab: Software Features and Evaluation. Technology Tools for Teachers.	
3	1/19	Lecture and Lab: Software Features and Evaluation. Technology Tools for Teachers.	Software Evaluation Due
4	1/26	Lecture and Lab: AT for Students with Learning Disabilities – Writing Tools	
5	2/2	Lecture and Lab: AT for Students with Learning Disabilities – Reading Tools	Video Tutorial Due; Student Presentations
6	2/9	Lecture and Lab: AT for Students with Learning Disabilities - Math Tools. Integrating the Internet for Instruction	
7	2/16	Lecture and Lab: AT for Persons with Physical Impairments	Blackboard Assignments Due; Student Presentations
8	2/23	Lecture and Lab: Visual Strategies and Augmentative Communication	
9	3/2	Lecture and Lab: AT for Students with Sensory Impairments	Assistive Technology Lesson Plan Due: Student Presentations

Assignments
EDSE 517: Computer Applications for Special Populations
Scoring Rubric for Software Review

Software Evaluation Paper (20 points): Due on January 19th

Choose a piece of software from our course software list to review. It should be a fairly recent version. Address the primary features of the software including accessibility and other topics addressed in class: Content, User Friendliness, Adult Management Features, Support Materials, and Value. The actual software review should be 3-4 pages that can be used as a reference for a potential software user. You may use any of the software review formats introduced in class, or you may feel free to use your own evaluation format. *Following the review should be a one-page reflection of your thoughts about the software, including pros and cons, from your perspective.* Late projects will be penalized.

Exemplary paper (16-20 points): Appropriate software chosen, thorough and thoughtful review of software, including clear description of primary features (content, user friendliness, adult management features, support materials, value) and overall accessibility. Graphic representing software included. Solid explanation of student's opinions of software, good writing style, free of mechanical or stylistic errors. Detailed, yet concise reflection indicating your thoughts about the software.

Adequate paper (11-15 points): Good overall paper, lacking in one or two of the criteria for an exemplary paper. Not entirely reflective or thoughtful, or minor writing style errors may be present.

Marginal paper (6-10 points): Overall acceptable paper, but with one or more significant problems. Contains some useful information, but may have substantial problems with evaluation, writing style, or design.

Inadequate paper (1-5 points): Paper with substantial problems in important areas such as writing, description of software, evaluation of software, overall thoughtfulness. Contains little or no information of value to special education practice.

Unacceptable/No paper (0 points): Paper with no value whatsoever relative to the assignment, or no paper turned in at all. May describe software of no value that was not approved for this assignment.

Exemplary paper	Adequate paper	Marginal paper	Inadequate paper	Unacceptable/ No paper
16-20	11-15	6-10	1-5	0

Assignments
EDSE 517: Computer Applications for Special Populations
Scoring Rubric for Tutorial

Video Tutorial (20 points): Due on February 2nd

Choose a piece of software (fairly recent version) or hardware of interest. Create a step-by-step tutorial for guiding a new user through a classroom use of the software or hardware application. Use of screen capture software will produce a video which can be viewed by an end user. Clear & concise scripting is expected and an effective tutorial should be limited to 2 to 5 minutes in length. Any extraneous or distracting screen captures should be edited. Consideration to the size of the video file should be given within parameters we will discuss in class. As a rule of thumb, a 15 MB Windows Media Video (.wmv) should be the final product. **On the due date, a third of all students will present their tutorials to the class.** Late projects will be penalized.

Exemplary tutorial (18-20 points): The software performance is timed within a 2 to 5 minute video and is efficiently presented. Appropriate software or hardware is chosen. A direct and easy to follow script is presented with appropriate and timely visual cues. The digital audio presented within the tutorial is clear and easy to hear. The video file is compressed to an appropriate file size within appropriate parameters discussed in class.

Adequate tutorial (15-18 points): Good overall tutorial, lacking in one or two of the criteria for an exemplary tutorial. Not entirely easy to follow, or minor video or audio glitches may be present. The file size may be excessively large.

Marginal tutorial (12-15 points): Overall acceptable tutorial, but with one or more significant problems. Contains some useful information, but may have substantial problems with guiding a new user with the software/hardware.

Inadequate tutorial (1-12 points): Tutorial with substantial problems in important areas. May be difficult to follow and information may be inaccurate. Contains little or no information of value to special education practice.

Unacceptable/No tutorial (0 points): Tutorial with no value whatsoever relative to the assignment, or no tutorial turned in at all. May describe a project of no value that was not approved for this assignment.

Exemplary tutorial	Adequate tutorial	Marginal tutorial	Inadequate tutorial	Unacceptable/ No tutorial
18-20	15-18	12-15	1-12	0

Assignments
EDSE 517: Computer Applications for Special Populations
Scoring Rubric for Web Page Design

Blackboard.com Design (20 points): Due on February 16th

For this project, students will plan and develop a Blackboard course site for integrated classroom use. Students will access the Fairfax County Public Schools blackboard server to design their site. http://fcps.blackboard.com It is the student's responsibility to request a course to be developed, research, structure and implement accessibility features for the website. Blackboard development materials will be provided in class. The website may be integrated into your classroom according to student need and some suggestions may include:

- ❖ Homework sections for your class to visit to remind them of their assignments
- ❖ Review of daily/weekly activities for parents or students to visit
- ❖ Discussion boards or virtual chats on a scheduled basis for help away from the classroom
- ❖ Tests developed to assess academic materials
- ❖ Blog spots for journaling curriculum topics
- ❖ Wikis indexing informational materials for parents

With regard to accessibility, consideration should be given for the following:

- o Navigation buttons allowing easy access to course materials
- o Elimination of unused buttons and course content areas
- o Elimination of unused faculty and student tools
- o An appropriate color scheme and button style for the course
- o Convenient accessibility for student populations and/or parents

With regard to content, each web page should contain:

- o A clear purpose of the site and site content
- o Should be easily readable and understandable
- o Should have faculty contact information
- o Appropriate access given to communication and assessment tools as required by the site's audience
- o Six examples of posted written information to be viewed by fellow employees, students or parents regarding school topics (Blackboard Item)
- o Six external web links to content related web resources
- o Six documents attached as links of downloadable content to be saved by fellow employees, students or parents regarding school topics
- o Six examples of integrated blog posts or Six wiki pages relating to site content

On the due date students will provide student access to the instructor.
In FCPS Blackboard **the user name for Jeff Sisk is jlsisk**. Student access for the instructor must be provided in order for the instructor to view and grade the assignment. Late projects will be penalized.

Do not wait to provide instructor access to your Blackboard site until the due date; this process can often be confusing and waiting until the last minute can often result in frustration!

In addition to construction of the Blackboard site, a 2-3 page narrative will be written to detail the design and content of your Blackboard site. This narrative should reflect all of the bulleted points given above with specific consideration given to a clear purpose for site content. Also, an explanation of posted content, external links, downloadable content, blogs, wikis, and any communication or assessment tools should be given. Detail should be specified as to how navigation features were constructed including which navigation buttons were selected for the site, which navigation buttons were omitted and how color schemes and images were chosen for display. A one page reflection on the creation and possible implementation of your Blackboard site should be provided. **On the due date, a third of all students will present their Blackboard sites to the class.** Late projects will be penalized.

Exemplary Blackboard Site & Narrative (16-20 points)
<u>Blackboard Website</u>
Completely accessible Blackboard site that is easy to read and inviting to look at while being free of unused content sections. The site meets the accessibility, creativity and content criteria listed above. Good writing style, free of mechanical or stylistic errors.
<u>Narrative</u>
Written explanation of posted content, external links, downloadable content, and any communication or assessment tools. Further explanation of navigation buttons selected, navigation buttons were omitted and how color schemes and images were chosen for display. Detailed, yet concise reflection indicating the process and thoughts experienced while creating the website including any thoughts on its use or future implementation.

Adequate Blackboard Site & Narrative (11-15 points): Good overall Blackboard site, lacking in one or two of the criteria for an exemplary web page. Not entirely reflective or thoughtful, or minor writing style errors may be present.

Marginal Blackboard Site & Narrative (6-10 points): Overall, acceptable but with one or more significant problems. Contains some useful information, but may have substantial problems with accessibility features, writing style, or design.

Inadequate Blackboard Site & Narrative (1-5 points): Web page with substantial problems in important areas such as writing, accessibility, and overall thoughtfulness. Contains little or no information of value to special education practice. Reflection does not document thoughts or reflect the process of creating the lesson.

Unacceptable/No Blackboard Site (0 points): Web page with no value whatsoever relative to the assignment, or no web page turned in at all.

Exemplary paper	Adequate paper	Marginal paper	Inadequate paper	Unacceptable/ No paper
16-20	11-15	6-10	1-5	0

Assignments
EDSE 517: Computer Applications for Special Populations
Scoring Rubric for Assistive Technology Lesson

Assistive Technology Lesson (22 points): Due on March 2nd

Students will design a lesson using a piece of assistive technology of their choice. The software or hardware chosen should match our definitions of assistive technology discussed throughout our course and be implemented in your lesson to allow a special education student or group of students to perform a task they would not have otherwise been able to perform.

Some examples of projects include:
- ❖ Facilitating student writing using Co:Writer, DraftBuilder and/or Write:Out Loud
- ❖ Reinforcing math skills integrating an interactive web resource
- ❖ Integrating a set of communication boards using Speaking Dynamically Pro or Boardmaker
- ❖ Integrating a graphic organizer such as Inspiration into a science lesson
- ❖ Creating and using a multimedia activity with Intellipics and Intellikeys
- ❖ Creating and using an electronic book with SmartNotebook software
- ❖ Facilitating the use of a Start to Finish title to build reading comprehension
- ❖ Scripting a TechTalk for a student who is unable to communicate verbally in his or her classroom
- ❖ Individualizing JAWS settings for a student in a social studies classroom who is either unable to see or read material presented on a computer screen

Include a lesson plan that provides a brief overview, in a list or paragraph format, of the following points:
- **Lesson Topic** and **Goal**. (This goal may be a Virginia State Standard of Learning.)
- **Content Area** and appropriate **Grade Level**
- **Student Activities and/or Procedures** for the entire lesson
- **Materials** required for lesson including all technology used
- **Lesson Modifications** for students with special needs, if the lesson is not specifically designed for students with special needs. What types of software or hardware would support the students in doing this lesson?
- **Justification of the Assistive Technology** within the lesson activity. What does the assistive technology enable this student or group of students to do within the learning process? How is it better than other classroom media?
- A **One-Page Reflection** about their thoughts while creating the lesson

On the due date, a third of all students will present their Blackboard sites to the class. Late projects will be penalized.

Exemplary lesson (19-22 points): Appropriate assistive/instructional technology chosen, use of advanced features of the software/hardware for lesson creation, thoughtful and creative method for presenting the lesson content material within the software/hardware; consideration of students with special needs. Detailed, yet concise reflection indicating the process and thoughts experienced while creating the lesson.

Adequate lesson (15-19 points): Good overall lesson, lacking in one or two of the criteria for an exemplary lesson. Uses mostly basic software features. Reflection may be weak in areas such as details or reflective analysis of experiences.

Marginal lesson (10-15 points): Overall, acceptable but with one or more significant problems, no advanced features of software/hardware used. Contains some useful information, but may have substantial problems with presentation, design, or explanation. Reflection may be weak in areas of description or reflective analysis.

Inadequate lesson (1-9 points): Lesson with substantial problems in important areas such as content and ways in which software/hardware is used. Contains little or no information of value to special education practice. Reflection does not document thoughts or reflect the process of creating the lesson.

Unacceptable/No lesson (0 points): Lesson with no value whatsoever relative to the assignment, or no lesson turned in at all. May describe technology of no value that was not approved for this assignment.

Exemplary lesson	Adequate lesson	Marginal lesson	Inadequate lesson	Unacceptable/ No lesson
19-22	15-19	10-15	1-9	0