GEORGE MASON UNIVERSITY
COLLEGE OF EDUCATION AND HUMAN DEVELOPMENT
SPECIAL EDUCATION PROGRAM

EDSE 517 Section 645 (3 credits)
Computer Applications for Special Populations
Spring 2010
Tuesdays 4:30 p.m.-9:00 p.m.
Prince William Campus of George Mason University, Bull Run Hall, Room 250

PROFESSOR:
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Office Hours: By appointment, Kelly Leadership Center, Room 2223.

COURSE DESCRIPTION:
    A. Prerequisites: graduate standing or permission of instructor
    B. Lecture and laboratory course for teachers of special populations in applications of computer technology for instructional programs and computer skills. Students learn to use computer technology designed for special populations.

NATURE OF COURSE DELIVERY:
    1. Learning activities in this class will include the following:
    2. Class lecture, discussion, and participation
    3. Software and hardware presentations
    4. Group and independent laboratory activities
    5. Class presentations
    6. Written papers using the American Psychological Association format (5th edition)

STUDENT OUTCOMES:
Upon completion of this course, students will be able to:
    1. Demonstrate an understanding of the history of assistive technology.
    2. Describe and implement a comprehensive set of procedures for software review and evaluation for specific populations.
    3. Describe and utilize key devices and software tools designed to help individuals with disabilities in educational settings including learning, physical, sensory, and intellectual disabilities.
    4. Describe key features in selecting and using an augmentative and alternative communication device for an individual.
    5. Define the issues related to the accessibility of the Internet by individuals with disabilities.
    6. Evaluate and select appropriate web-based activities for individuals with disabilities.
    7. Adapt and modify general education curriculum and class activities using assistive technology to meet the needs of diverse learners.
    8. Design an appropriate technology integrated lesson plan for special education population.

PROFSSIONAL STANDARDS:
This course is part of the George Mason University, Graduate School of Education and Human Development, and Special Education Master's Degree Program.

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

ASSESSMENT OF COURSE REQUIREMENTS:

Assignments may be e-mailed to instructor <u>no later than 3:30 p.m. on the date that they are due and instructor will print them, or bring a hard copy to class.</u> **All assignments should be word-processed and are due at the start of class on the dates indicated.** If student is absent the due date does not change, and student is responsible to make sure that all assignments are handed in on time. Consult with the instructor in advance if there is a problem. In fairness to students who make an effort to submit papers on time, **there will be a 10% cost reduction per day for late papers**. (For example, a 20-point assignment will lose 2 points per day.) Please retain a copy of your assignments in addition to the one you submit. All assignments should reflect graduate-level spelling, syntax, and grammar.

Note: If you need course adaptations or accommodations because of a disability or if you have emergency medical information to share with me or need special arrangements, **please make an appointment with me as soon as possible.**

COURSE EXPECTATIONS:
- Students are expected to (a) attend all classes during the session, (b) arrive on time, (c) stay for the duration of the class time and (d) complete Blackboard discussion boards and other assignments.
- During class time, computers are to be used only for work related to the class. Students found using the computer for purposes other than the assigned class activity will be asked to turn off their equipment and will not receive class participation points for that class session.
- Use APA guidelines for all course assignments. This website links to APA format guidelines. http://www.psywww.com/resource/apacrib.htm
- We will use person-first language in our class discussions and written assignments (and ideally in our professional practice). Please refer to "Guidelines for Non-Handicapping Language in APA Journals" http://www.apastyle.org/disabilities.htm
- Every student registered for any EDSE course as of Fall 2007 semester is required to submit signature course assignment to TaskStream (regardless of whether a course is an elective, a one time course or part of an undergraduate minor). TaskStream information is available at http://gse.gmu.edu/programs/sped. Failure to submit the assignment to TaskStream will result in reporting the course grade as Incomplete (IN). Unless the grade is changed, upon completion of the required submission, the IN will convert to an F nine weeks into the following semester.

COURSE ASSIGNMENTS
Written assignments are due by the start of class on the date they are due.

1. **Class and Lab Participation (20 points, 2 points per class).** Attendance at all sessions is very important because many of the activities in class are planned in such a way that they cannot necessarily be recreated outside of the class session. Class and lab participation is demonstrated by participation and utilization of lab time in an effective and efficient manner. Students will be awarded two points each class session for successful completion of in class activities. Students who miss class will not have the opportunity to make up missed in-class assignments, and therefore, will not earn class participation points for that missed class session.

2. **Software Review (15 points).** Students will choose a piece of instructional software to review. A brief description of the software should precede a thorough review of the software 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. **(Due 3/23).** Students who wish to make corrections and resubmit their review for grading must turn in the corrected paper *no later than designated date (Due 4/13).*

3. **Technology Comparison Assignment (15 points).** Students will select a broad category to research, describe, and analyze. A list of technology categories (e.g. word prediction, talking word

processing) is provided by the instructor. Students will then select two specific technologies within their category (e.g. Co:Writer and textHelp Read and Write) as part of their analysis. Using the template provided on Blackboard, students should provide a description of the overall technology including its intended purpose, audience, and important features. Students then should provide a brief description of each specific technology they have selected along with a comparison of product similarities and differences. Finally the paper should <u>include a recommendation for one of the specific technologies based on the unique needs of a student (real or fictional)</u>. Please note: it is anticipated that students will use the Internet and/or product catalogs to obtain product information and descriptions, however students are expected to reference such information using proper APA format.. **(Due 4/13).** Students who wish to make corrections and resubmit their paper for grading must turn in the corrected paper *no later than designated date (Due 5/4).*

4. **Creating Classroom Tools (25 points):** Students will be responsible for creating 5 small projects for use in the classroom. **(Assignments will be completed in class on 3/23, 4/6 and 4/20).**

5. **Assistive/Instructional Technology Lesson (25 points):** Students will design a lesson using the instructional or assistive technology of their choice. The lessons will be presented in class. Late projects will be penalized. Please refer to the scoring rubric for additional information on this assignment. **(Due 5/11)**

Grading Scale
A = 95-100%; A- = 90-94; B+ = 85-89 %; B= 80-84; C = 70-79%; F = <70%

COLLEGE OF EDUCATION AND HUMAN DEVELOPMENT STATEMENT OF EXPECTATIONS:

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.
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*   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.

TENTATIVE CLASS SCHEDULE AND ASSIGNMENT DUE DATES

Session Number	Date	Class Activities	Assignments and Due Dates
1	3/9	Lecture and Lab: Introduction to AT; Software features and evaluation	
2	3/16	Lecture and Lab: Microsoft Accessibility and Microsoft Word.	
3	3/23	Lecture and Lab: PowerPoint and Creating Classroom Tools **Students will begin creating 4 artifacts during class that will be worth a total of 20 points.**	***Software Review due***
	3/30	***SPRING BREAK, NO CLASS***	
4	4/6	Lab: Creating Classroom Tools Part II. **Students will have the opportunity to finish creating artifacts started during previous class.**	
5	4/13	Lecture and Lab: AT for students with a disability in reading.	***Technology Comparison Assignment due***; Student presentations/sharing ***(Resubmissions of Software Review due)***
6	4/20	Lecture and Lab: AT for students with a disability in writing. **Students will create the final artifact, a template in Inspiration or Kidspiration during class that will be worth a total of 5 points.**	
7	4/27	Lecture and Lab: Using the Internet for instruction	
8	5/4	Lecture and Lab: AT for students with physical impairments; AT and the IEP; AAC for students with communication challenges.	***(Resubmissions of Technology Comparison Due)***
9	5/11	Student Presentations **This is the signature assignment for the course and will also be posted on the student's account in TaskStream:** http://www.taskstream.com/	***Assistive/ Instructional Technology Lesson Plan due***; *Posted on TaskStream;* Student presentations

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

Software Review Paper (15 points): Due on 3/23

Choose a piece of software that would be appropriate to use in your classroom to review; it should be a fairly recent version. Address the primary features of the software <u>including universal design/accessibility</u> and other topics addressed in class (content, user friendliness, adult management features, support materials, and value). The actual software review should be 1-2 pages that can be used as a reference for a potential software user. The software review template is posted on Blackboard; save the template to your hard drive/disk drive in order to enter information. ***<u>Following the review should be a one-page reflection of your thoughts about the software, including pros and cons, from your perspective</u>***. Late projects will be penalized.

Exemplary paper (13-15 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 for use by people with disabilities. 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 (10-12 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 (7-9 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 (1-8 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
13-15	10-12	7-9	1-8	0

SOFTWARE REVIEW SCORING RUBRIC

NAME: _____

SOFTWARE BEING REVIEWED: _____

	Points	Comments
Universal Design/Accessibility (1 pt)		
Description of primary Features:		
1. **Content (2 pts)**		
2. **User friendliness (2 pts)**		
3. **Adult management features (2 pts)**		
4. **Support materials (2 pts)**		
5. **Value (2 pts)**		
Graphic representing software (1 pt)		
Author's opinion of software clearly stated (3 pts)		
Total Points (out of 15 possible)		

Grading Scale:

Exemplary paper	Adequate paper	Marginal paper	Inadequate paper	Unacceptable/ No paper
13-15	10-12	7-9	1-8	0

Assignments
EDSE 517: Computer Applications for Special Populations
Scoring Rubric for Technology Comparison Assignment

Technology Comparison Assignment (15 points): Due on 4/13

Students will select a broad category to research, describe, and analyze. A list of technology categories (e.g. word prediction, talking word processing) will be available from the instructor. Students will then select two specific technologies within their category (e.g. Co:Writer and textHelp Read and Write) as part of their analysis. Using the template provided on Blackboard, students should provide a description of the overall technology including its intended purpose, audience, and important features. Students should provide a brief description of each specific technology they have selected followed by a comparison of product similarities and differences (this may be done in table format or in narrative). Finally the paper should include *a brief description of a school- age student (real or fictional), including strengths and areas of need, and conclude with a recommendation for one of the specific technologies based on the unique needs* <u>*of the selected school- age student*</u>.

Please note: it is anticipated that students will use the Internet and/or product catalogs to obtain product information and descriptions, however students are expected to reference such information using proper APA format.

Exemplary paper (13-15 points): *Appropriate software chosen, clear description of each piece of software including intended purpose, audience, and important features. Description of similarities and differences of the software (side by side comparison of the two). Student recommendation of one piece of software based upon the unique needs of a student, real or fictional, (include description of the student).*

Adequate paper (10-12 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 (7-9 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 (1-6 points): *Paper with substantial problems in important areas such as writing, description of software, comparison of software, or 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 not 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
13-15	10-12	7-9	1-6	0

TECHNOLOGY COMPARISON SCORING RUBRIC

NAME:_____

SOFTWARE BEING COMPARED:_____

	Points	Comments
Appropriateness of software chosen **(3 points)**		
Description of overall technology being compared: Intended purpose: **1 point** Audience: **1 point** Important features: **1 point** **Total possible: 3 points**		
Brief description of each piece of software **3 points**		
Compare/contrast the two pieces of software (table format) **3 points**		
Recommendation of one piece of software to meet specific needs of a student. **3 points**		
Total Number of Points **(15 possible points)**		

Grading Scale:

Exemplary Paper	Adequate Paper	Marginal Paper	Inadequate Paper	Unacceptable/ No Paper
13-15	10-12	7-9	1-6	0

Assignments
EDSE 517: Computer Applications for Special Populations
Scoring Rubric Creating Classroom Tools

Creating Classroom Tools (25 points): Created in class on 3/23, 4/6, 4/20

For this project, students will create the following classroom tools: a poster using Microsoft *Power Point* and *Publisher*, a form using *Word* that contains a variety of answer fields, a *Power Point* presentation that contains type- on slides, an interactive *Power Point* that allows students to make choices and receive feedback, and a template using either *Inspiration* or *Kidspiration*. Each project is worth 5 points.

Microsoft *Power Point/Publisher* Poster: 5 points
After creating a Power Point slide show with text and graphics, students will use Microsoft Publisher to create a poster for use in the classroom.

Microsoft *Word*: 5 points
Students will create an interactive form in *Word* that will use answer fields, check boxes, and drop boxes.

Microsoft *PowerPoint:* 5 points
Students will create a *PowerPoint* presentation that contains type-on slides.

Microsoft *PowerPoint*: 5 points
Students will create an interactive *PowerPoint* slideshow for use in the classroom that requires the user to make choices and gives feedback as to the correctness of the choice.

***Kidspiration* or *Inspiration:* 5 points**
Students will create a template using either *Kidspiration* or *Inspiration* that can be used as part of a lesson plan.

Each project is graded separately

Exemplary projects Total of	Adequate projects Total of	Marginal projects Total of	Inadequate projects Total of	Unacceptable/ No projects
20-25	14-19	9-13	1-8	0

CLASSROOM TOOLS SCORING RUBRIC

NAME:_____

Project/Criteria	Points	Comments
Poster: *PowerPoint* slide show with graphics and text—minimum of 8 slides Poster has a minimum of 8 segments Material in slide show/poster is relevant to classroom use **Total: 5 points**		
Form: Form contains answer fields, check boxes, and drop box format for responses Form is locked/able to access answer fields, etc. Material is relevant for use in the classroom. **Total: 5 points**		
PowerPoint with type-on slides Minimum of 2 slides that contain at least 1 graphic on each slide Each slide contains at least 3 text boxes for answers When in slide show mode, answers can be typed into text boxes Material is relevant for use in the classroom **Total: 5 points**		
Interactive PowerPoint Minimum of 5 interactive slides that allow the user to make choices and receive feedback Each slide contains at least one graphic Material is relevant for use in the classroom **Total: 5 points**		
Template using *Inspiration* or *Kidspiration* Template contains at least one graphic for *Inspiration*; at least 3 graphics for *Kidspiration* Template contains clear directions for student use Material is relevant for use in the classroom **Total: 5 points**		
Total for all projects: 25 points		

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

Assistive/Instructional Technology Lesson (25 points): Due on 5/11

This is the signature assignment for the course and will also be posted on the student's account in TaskStream at: http://www.taskstream.com/ no later than the beginning of class on 5/11. _Final grade for the course will not be submitted to George Mason until the signature assignment is posted on TaskStream._

Students will **design a lesson** using the instructional or assistive technology of their choice. Some examples of projects include:
Create a math lesson using *PowerPoint*
Creating a history lesson using *PowerPoint*
Creating a set of communication boards using *Boardmaker*
Creating a science lesson utilizing the digital microscope, digital camera, and *PowerPoint*
Creating a digital book using *PowerPoint*
Adapting a book using *Intellipics* and *Intellikeys*
Creating a language arts lesson using *Inspiration* or *Kidspiration*

***(*PowerPoint* projects must be <u>interactive</u>, not just a series of static slides.)

Using the template that is provided on Blackboard, include a **lesson plan** that provides a brief overview, in paragraph format, of the following points:
Lesson Topic and **Goal: identify SOL or ASOL being addressed.**
Content Area and **Grade Level**
Student Activities and **Materials** required for lesson: be certain to list <u>on-line</u> and <u>off-line</u> activities for students to reinforce learning.
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? Be specific as to what special needs you are addressing.

<u>Additionally, students will submit a one-page reflection about their thoughts while creating the lesson, justification for technology selected, etc.</u>

Students will present their lessons to the class on the last night.

Exemplary lesson (20-25 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 (14-19 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 (9-13 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 (1-8 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
20-25	14-19	9-13	1-8	0

The final project will be returned to you at your base school through the interoffice courier or mailed to your home if you are not employed by Prince William County Schools.

ASSISTIVE/INSTRUCTIONAL TECHNOLOGY LESSON PLAN SCORING RUBRIC

NAME:

TITLE OF LESSON PLAN:

	Points	Comments
Appropriateness of assistive/instructional technology used **(4 points)**		
Use of advanced features of the software/hardware for lesson creation **(2 points)**		
Lesson Topic Goal Content Area Grade Level Student Activities Materials Needed **(1 points each= 6)**	 (total)	
Thoughtful and creative method for presenting the lesson content material within the software/hardware **(5 points)**		
Consideration of students with special needs (be specific as to needs being addressed) **(3 points)**		
Detailed but concise reflection indicating the process and thoughts experienced while creating the lesson **(5 points)**		
Total Number of Points **(25 possible points)**		