

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

EDSE 517: Technology Applications in Special Education  
Spring 2005

Section # 001: 4:30 to 7:10 pm Thursday

Section # 002: 7:20 to 10:00 pm Thursday

Location: Thompson Hall, Room 221 (Assistive Technology Lab)

Instructors: Patti Lindstrom & Yoosun Chung

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Office Hours: By appointment, Krug Hall, Room 105

Most course information, lectures, and readings will be posted on Blackboard at <http://blackboard.gmu.edu>. 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 vocational skills for students with disabilities. Laboratory and demonstration experiences will enable students to better utilize devices and software in special education settings.

### **OBJECTIVES/COMPETENCIES**

Students will be able to:

Demonstrate an understanding of the history of assistive technology

Describe and implement a comprehensive set of procedures for software review and evaluation for specific populations

Describe and utilize key software for specific populations

Demonstrate proficiency in a variety of technologies utilized to enhance written and/or spoken communication

Demonstrate the use of technologies designed to aide in literacy activities

Demonstrate the use of different classroom management tools and discuss their applicability in different settings

Describe and utilize key devices and software tools designed to help individuals with sensory impairments

Describe and utilize key devices and software tools designed to help individuals with physical impairments

Describe and implement accessibility considerations for Internet design on own web page

Design an appropriate technology integrated lesson plan for a specific special education population

## **NATURE OF COURSE DELIVERY**

Learning activities in this class will include the following:

Class lecture, discussion, and participation  
Software and hardware presentations  
Group and independent laboratory activities  
Class presentations

## **COLLEGE OF EDUCATION AND HUMAN DEVELOPMENT STATEMENT 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 [gse.gmu.edu](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](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](http://www.gmu.edu/student/drc) or call 703-993-2474 to access the DRC.

## **GRADING CRITERIA**

A = 90-100%  
B = 80-89 %  
C = 70-79%  
D = 60-69%  
F = <60%

## ASSIGNMENTS AND EVALUATIONS

Students will be evaluated on the following:

**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. Each class is worth **1 point. (15 points)**

### **Word & Excel Projects (Due 2/17)**

#### **Excel Project**

Using Microsoft Excel, students will create a grade sheet for a class that they teach or might be teaching. Late projects will be penalized 1 point per day late. Please refer to the scoring rubric for additional information on this assignment. **(10 points)**

#### **Word Project**

Using Microsoft Word, students will create an interactive worksheet or quiz. Late projects will be penalized 1 point per day late. Please refer to the scoring rubric for additional information on this assignment. **(10 points)**

**Web Page Design (Due 3/3):** Students will be responsible for designing their own accessible web page using their George Mason University accounts. The web pages will be presented in class. Late projects will be penalized 1 point per day late. Please refer to the scoring rubric for additional information on this assignment. **(25 points)**

**Software Review (Due 3/31):** Students will choose a piece of 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 1 point per day late. Please refer to the scoring rubric for additional information on this assignment. **(15 points)**

**Assistive/Instructional Technology Lesson (Due 5/5):** Students will design a lesson using an instructional or assistive technology of their choice. The lessons will be presented in class. Late projects will be penalized 1 point per day late. Please refer to the scoring rubric for additional information on this assignment. **(25 points)**

***\*\*In addition to providing a hard copy of the assignments, all assignments (except the website) must be emailed to the instructor or submitted to the Blackboard Digital Drop Box by the start of class on the due date.***

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.

## TENTATIVE CLASS SCHEDULE AND ASSIGNMENT DUE DATES

Session Number	Date	Class Activities	Assignments and Due Dates
1	1/27	Lecture and Lab: Introduction	
2	2/3	Lecture and Lab: Microsoft Word, Snag It, Microsoft Accessibility	
3	2/10	Lecture and Lab: Powerpoint, Excel	
4	2/17	Lecture and Lab: Designing web pages for content and accessibility; Software to create and post web pages	Excel, Word Activities Due
5	2/24	Lab: Work on web pages	
6	3/3	Lab: Work on web pages	Web pages to be presented at end of class
7	3/10	Lecture and Lab: Software features and evaluation Using the Internet for instruction	
8	3/17	<b>SPRING BREAK – No Class</b>	
8	3/24	Lecture and Lab: Augmentative and alternative communication	
9	3/31	Lecture and Lab: AT for students with learning disabilities - Reading tools	Software Review Due
10	4/7	Lecture and Lab: AT for students with learning disabilities - Writing tools	
11	4/14	Lecture and Lab: AT for students with physical impairments, Intellitools	
12	4/21	Lecture and Lab: AT for students with sensory impairments	
13	4/28	Lecture: AT and the IEP	
14	5/5	Assistive/Instructional Technology Lesson Presentations	Technology Lesson Due, Final Presentations

## ASSIGNMENTS

### EDSE 517: Technology Applications in Special Education Scoring Rubric for Word and Excel Projects

#### Word and Excel Projects (20 points): Due on 2/17

##### Excel Project (10 points)

Using Microsoft Excel, create a grade sheet for a class that you are or might be teaching. The grade sheet should include the following information:

1. headings on all columns
2. names of students
3. list of assignments, quizzes, tests
4. student scores
5. student averages and class averages for each assignment, test, quiz etc...
6. Calculate the final grade based on the above scores

Send the Excel file to your instructor as an attachment via e-mail or post it to Blackboard. Please remember to name it **Gradebook\_yourlastname**

Exemplary project	Adequate project	Marginal project	Inadequate project	Unacceptable/No project
10	8-9	5-7	1-4	0

**Exemplary project (10 points):** *Meets all criteria*

**Adequate project (8-9 points):** *Good overall project, lacking in one or two of the criteria for an exemplary project.*

**Marginal project (5-7 points):** *Lacking in three of the criteria*

**Inadequate project (1-4 points):** *Substantial problems, lacking in four or more of the criteria*

**Unacceptable/No project (0 points):** *No project turned in*

## Word Project (10 Points) Due on 2/17

Using Microsoft Word, create an interactive worksheet or quiz with the following:

1. Two multiple-choice questions using the **drop-down form field**
2. Four fill in the blank questions using the **text form field**.
3. Form field shading
4. Form protection
5. Appropriate font size and spacing

Save it as a template and name it **Quiz\_yourlastname**. Submit by email or the Digital Drop Box on Blackboard.

Exemplary project	Adequate project	Marginal project	Inadequate project	Unacceptable/No project
10	8-9	5-7	1-4	0

**Exemplary project (10 points):** *Meets all criteria*

**Adequate project (8-9 points):** *Good overall project, lacking in one or two of the criteria for an exemplary project.*

**Marginal project (5-7 points):** *Lacking in three of the criteria*

**Inadequate project (1-4 points):** *Substantial problems, lacking in four or more of the criteria*

**Unacceptable/No web page (0 points):** *No project turned in*

## ASSIGNMENTS

### **EDSE 517: Technology Applications in Special Education Scoring Rubric for Web Page Design**

#### **Web Page Design (25 points): Due on 3/3**

For this project, students will use Dreamweaver to design and upload an accessible web page on their George Mason University accounts. The web page may be about any topic of interest, however some suggestions for this page include:

Homework section for your class to visit to remind them of their assignments  
Review of daily/weekly activities for parents or students to visit  
Photographs and information about hobby or something of interest  
Family page that provides updates and information to family members  
Information to be used by fellow employees, students, or parents regarding school topics

On the due date, students will present their web pages to the class and will submit the URL (web address) to the instructor. The web page must be uploaded to the web in order for the instructor to view and grade the assignment. Late projects will be penalized 1 point per each day late.

*Hint: Do not wait to upload your web page until the due date; this process can often be confusing and waiting until the 'last minute' can often result in frustration!*

#### **With regard to accessibility, each web page should consider:**

- Alt tags on graphics and images
- Font size
- Font style
- Visual contrast
- Readability
- Consistency

#### **With regard to creativity, each web page should:**

- Be inviting and easy to look at
- Contain at least one image or graphic
- Contain at least one paragraph of written information
- Contain information that is valuable to students, teachers and/or parents

#### **With regard to content, each web page should contain:**

- Purpose of the site and site content
- Easily readable and understandable material
- At least three pages that are linked to each other
- An email link for contact information
- Links to at least one to a webpage
- A "last updated" section

**Submission:**

- Uploaded to the GMU server
- On the due date, students presented their web pages to the class.

**Exemplary web page (23-25 points):** *Completely accessible web page that is easy to read and inviting to look at. The site meets the accessibility, creativity, and content criteria listed above. Good writing style, free of mechanical or stylistic errors.*

**Adequate web page (18-22 points):** *Good overall web page, lacking in two or three of the criteria for an exemplary web page. Not entirely clear, or minor writing style errors may be present.*

**Marginal web page (10-17 points):** *Overall, acceptable but lacking in four or more of the criteria for an exemplary web page. Contains some useful information, but may have substantial problems with accessibility features, writing style, or design.*

**Inadequate web page (1-9 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.*

**Unacceptable/No web page (0 points):** *No web page turned in at all.*

Exemplary web page	Adequate web page	Marginal web page	Inadequate web page	Unacceptable/No web page
23-25	18-22	10-17	1-9	0

**EDSE 517: Technology Applications in Special Education  
Scoring Rubric for Software Review**

**Software Review Paper (15 points): Due on 3/31**

Choose a piece of software of interest to review; it should be a 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 1-2 pages that can be used as a reference for a potential software user. You will use the software review format introduced in class, or you may feel free to use your own evaluation format. Late projects will be penalized one point for each day late. Name it **Software\_yourlastname** and submit by email or the Digital Drop Box on Blackboard.

**Exemplary review (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. Graphic representing software included. Solid explanation of student's opinions of software, good writing style, free of mechanical or stylistic errors.*

**Adequate review (10-12 points):** *Good overall paper, lacking in one or two of the criteria for an exemplary review.*

**Marginal review (7-9 points):** *Overall acceptable review, but with one or more significant problems. Contains some useful information, but may have substantial problems with evaluation, writing style, or design.*

**Inadequate review (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. May describe software of no value that was not approved for this assignment.*

**Unacceptable/No paper (0 points):** *Paper with no value whatsoever relative to the assignment, or no paper turned in at all.*

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 Assistive/Instructional Technology Lesson

#### Assistive/Instructional Technology Lesson (25 points): Due and present on 5/5

Students will **design a lesson** using an instructional or assistive technology of their choice. Some examples of projects include:

- Creating a history lesson using Powerpoint
- Creating a set of communication boards using Speaking Dynamically Pro or Boardmaker
- Creating a science lesson utilizing the digital microscope, digital camera, and Powerpoint
- Adapting a book using Intellipics and Intellikeys
- Creating a language arts lesson using Inspiration or Kidspiration

Include a lesson plan that provides a brief overview, in a list or paragraph format, of the following points:

- Lesson Topic and Goal
- Content Area and Grade Level
- Student Activities and Materials required for lesson
- 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.

**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.*

**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.*

**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 problems with presentation, design, or explanation.*

**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.*

**Unacceptable/No lesson (0 points):** *Lesson with no value relative to the assignment, technology not approved, or no lesson turned in at all.*

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