



George Mason University
College of Education and Human Development
Special Education Program
Fall 2010

Assistive Technology for Individuals with Sensory Impairments
GMU- EDSE/EDIT 422/522 - 5S1
ODU- ESSE 437/537
RU- EDSP 654

Schedule

Class Time 4:00 – 6:40 Kellar Annex 1 room 102
Directions: http://kihd.gmu.edu/e_learning/directions_to_annex/

Instructor

Kristine Neuber, M.Ed.
Phone: 703-993-5254
Email: kneuber@gmu.edu
Office Location Finley Hall 201A (Fairfax Campus George Mason University)

Office Hours: by appointment

Course Description

This course focuses on professionals or students interested in serving visually impaired/blind or hearing impaired/deaf populations. Heightens awareness of participants to specific technology and resources available to enhance and improve ability of individuals with impairments to succeed in school, daily living activities, and employment. Knowledge and awareness components may be delivered via distance education.

Nature of Delivery

Learning activities in this class will include the following:

1. Class lecture, discussion, and participation via synchronous face to face, video conferencing
2. Video and other relevant interactive media presentations
3. Study and independent research

4. Application activities, including regular assignments
5. Written responses to posted discussion questions posted on Blackboard.

Relationship of Courses to Program Goals and Professional Organizations

This course 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 areas of Emotional Disturbance and Learning Disabilities. This program complies with the standards for teacher licensure established by the Council for Exceptional Children, the major special education professional organization. As such the learning objectives for this course cover many of the competencies for curriculum and methods for teaching individuals with emotional disturbances and learning disabilities kindergarten through grade 12.

Council for Exceptional Children's (CEC) Professional Technology Standards

- 1S2:** Use technology-related terminology in written and oral communication.
- 4S2:** Provide technology support to individuals with exceptional learning needs who are receiving instruction in general settings.
- 4S3:** Arrange for demonstrations and trial periods with potential assistive or instructional technologies prior to making purchase decisions.
- 5S1:** Use technology to foster social acceptance in inclusive settings.
- 8S1:** Match characteristics of individuals with exceptional learning needs with technology product or software features.
- 10K1:** Roles that related services personnel fulfill in providing technology services.
- 10S4:** Instruct others in the operation of technology, maintenance, warranties, and trouble-shooting techniques.

Required Text

Web sites and readings will be provided on Blackboard

Learner Outcomes

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

- Define the issues and or cultural perspectives and background related to the hearing impaired/deaf and visually impaired/blind populations as they relate to technology.

- Describe the technology available for individuals who are visually impaired/blind and hearing impaired/deaf.
- Locate resources available for hearing impaired/deaf and visually impaired/blind populations.
- Identify pros and cons of widely used technology for individuals with sensory impairments.
- Demonstrate competency in utilization of at least one piece of technology designed for individuals with a sensory impairment.

Course Schedule:

Date	Topic	Readings & Assignments
10/05/2010	Introductions/Review Syllabus Vision Impairment/ HI Basics Strategies and solutions for people with visual and hearing impairments AT Laws	<i>See Blackboard for Readings & Resources</i>
10/12/2010	No Class – Field Assignment	<i>See Blackboard for Readings & Resources</i> Field Assignment should be posted to Blackboard by midnight on 10/18/2010
10/19/2010	Daily Living Aids VI & HI Mobility Assessment Process/Tools Lesson Plans (Share Field Assignments)	Field Assignment Due by Midnight 10/18 <i>See Blackboard for Readings & Resources</i>
10/26/2010	Screen Enlarging Technology Document Enlarging Technology In class Activity with ZoomText & Magic	<i>See Blackboard for Readings & Resources</i>
11/02/2010	Screen Reading Technology In class Activity with JAWS Educational Games with Screen Reading capabilities	See Blackboard for Readings & Resources
11/09/2010	Scan & Read Technology E-Text Readers DAISY Readers In class Activity with Kurzweil 1000	Product Comparisons Due 2 students complete Technology

		Demonstrations
11/16/2010	Braille Reading & Writing Technology Tactile Graphics Guest Speaker	<i>See Blackboard for Readings & Resources</i> 3 students complete Technology Demonstrations
11/23/2010	Captioning Technology & Services Communication options between HI and Hearing populations	<i>See Blackboard for Readings & Resources</i> 3 student complete Technology demonstrations
11/30/2010	Multiple & Severe Disabilities	See Blackboard for Readings & Resources 3 students complete Technology Demonstrations
12/07/2010	Final Presentations	Final Implementation Project Due

Course Requirements – Grading Rubrics will be posted on Blackboard

All assignments should be submitted to Blackboard by 4:00 the day they are due unless otherwise specified. Points will be deducted for late assignments. Assignments submitted more than 1 week late will **not** be accepted unless arrangements have been made with the instructor.

Class Participation (10 points)

Most class sessions will have an in-class activity in order to have hands-on experience with the technology. Students are expected to participate fully in class discussions by responding to questions sharing experiences and completing in class activities. One class may be missed without penalty. **Students missing two or more classes will not receive full class participation points.** Students are responsible for getting the information they miss do to absence and completing all required assignments.

Technology Resource Worksheets (10 points) – Submitted the last day of class 12/7

On blackboard you will a Technology Resource Worksheets for both assistive technology hardware and software. Each student will be expected to complete one of these worksheets for each piece of software and hardware demonstrated by the instructor, guest speaker or through video clips during in-class demonstrations. In some cases you may need to refer to course readings and resources to complete all of the information requested on the form. At the end of the semester each student will be expected to submit 10 completed worksheets. There will be more than 10 items demonstrated. You may decide which worksheets to submit. Worksheet must be typed and submitted

electronically. Each fully complete worksheet will be worth one point. The worksheets are designed to be a reference for you to keep.

Field Activity (10 points) - Must be posted by Midnight 10/18

Complete a field activity in which you identify activities in your daily routine that would cause an access-related issue for someone with a hearing and/or visual impairment (web site, hard copy documents, transportation, etc.). Prepare a list of the activities and explain the access issue encountered. Take a picture or screen shot of at least one of the access issues. Post the information to the discussion board. Be prepared to share your findings with the class.

Product Comparison (20 points) Due 11/9

Choose a type of technology used for people with a sensory impairment and compare the options and functionality of three different products. (ie, three different screen readers, CCTV's, sound amplification systems, etc.)

Components:

- General description of the technology (including pictures)
- Skills the individual would have to possess to use the device or software
- Cost comparison
- Function comparison
- Ordering Information

NOTE:

The product comparison should **NOT** be a narrative description. Concentrate on main options/components of each product and bullet the information. The information should be presented in the form of a brochure or informational flyer. No more than two pages. One page double-sided. – This should be a resource you could easily provide to a parent or student/client to help them choose the most appropriate device. – Examples will be provided.

Technology Demonstration & Lesson Plan (20 points)

Due on the date technology is demonstrated to the class (You will sign up for a date in class)

Each student must select an assistive technology software program to learn and demonstrate to the class. Students must show one component of the software (i.e. using JAWS to search the internet, using a Braille Note to take notes in class). Students will be provided with demonstration software and a specific activity to demonstrate in consultation with the instructor. A lesson plan must be submitted with all appropriate keystrokes and lesson instructions to allow you to teach someone how to do the activity using the selected technology.

Final Implementation Project (30 points) Due 12/7
This is your Signature Assignment to be posted to Task Stream

Each student must complete an implementation project based on a case study given in class or with a person with a sensory impairment known to the student. The assignment requires that you recommend appropriate assistive technology devices and strategies to enable the individual to reach his or her goals. Students that would like to complete this project on a real person known to them must meet with the instructor to discuss the project by **November 2.**

Required Components of the Project

- Background information on the client (Functional Abilities and Challenges) and any medical information available.
- Goals and objectives of the student/client
- The Environment/Setting and Adaptations Needed.
- Device Selection and Rational (must include at least 3 devices/software)
- Skills that the client will need to be successful
- Device Customization
- PowerPoint Presentation to class (no more than 10 min)

Grading Scale

Grades will be assigned, using a point system, of a total of 100 available points:

90-100 points = A
80-89 points = B
70-79 points = C
<70 points = F

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 <http://gse.gmu.edu/facultystaffres/profdisp.htm> for a listing of these dispositions.

Students must follow the guidelines of the University Honor Code. See <http://catalog.gmu.edu/content.php?catoid=15&navoid=1039#Honor> 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 Office of Disability Services (ODS) and inform the instructor, in writing, at the beginning of the semester. See <http://www2.gmu.edu/dpt/unilife/ods/> or call 703-993-2474 to access the ODS.

Task Stream

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 Task Stream 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.