College of Education and Human Development
Division of Special Education and disAbility Research

Fall 2014
EDSE 517 679: Computer Applications for Special Populations
CRN: 81402, 3 - Credits

Instructor: Mr. Jeffrey Sisk	**Meeting Dates:** 9/9/2014 - 11/11/2014
Phone: 703-208-7963	**Meeting Day(s):** Tuesdays
E-Mail: jeff.sisk@fcps.edu	**Meeting Time(s):** 4:30 pm-8:30 pm
Office Hours: By Appointment	**Meeting Location:** Rocky Run Modular, 18

> *Note: This syllabus may change according to class needs. Students will be advised of any changes immediately through George Mason e-mail and/or through Blackboard.*

Course Description
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.Prerequisite(s): Graduate standing, or permission of instructor. Hours of Lecture or Seminar per week: 3Hours of Lab or Studio per week: 0

Prerequisite(s): Graduate standing, or permission of instructor

Co-requisite(s): None

Advising Contact Information
Please make sure that you are being advised on a regular basis as to your status and progress through your program. Mason M.Ed. and Certificate students should contact the Special Education Advising Office at (703) 993-3670 for assistance. All other students should refer to their faculty advisor.

Nature of Course Delivery
Learning activities include the following:
   1. Class lecture and discussion

2. Application activities
3. Small group activities and assignments
4. Video and other media supports
5. Research and presentation activities
6. Electronic supplements and activities via Blackboard (http://fcps.blackboard.com) & FCPS Google Apps for Education (http://www.fcpsschools.net)

Learner Outcomes
Upon completion of this course, 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 devices and software tools designed to help individuals with disabilities in educational settings including learning, physical, sensory, and intellectual disabilities.
• Describe key features in selecting and using an augmentative and alternative communication device for an individual
• Define the issues related to the accessibility of the Internet by individuals with disabilities.
• Evaluate and select appropriate web-based activities for individuals with disabilities.
• Adapt and modify general education curriculum and class activities using assistive technology to meet the needs of diverse learners.
• Design an appropriate technology integrated lesson plan for a specific special education population.

Required Textbooks
Assistive Technology in the Classroom: Enhancing the School Experiences of Students with Disabilities by Amy G. Dell, Deborah A. Newton & Jerry G. Petroff

Digital Library Option
The Pearson textbook(s) for this course **may be** available as part of the **George Mason University Division of Special Education and disAbility Research Digital Library**. Please note that not all textbooks are available through this option. Visit the links below before purchasing the digital library to ensure that your course(s) text(s) are available in this format. The division and Pearson have partnered to bring you the Digital Library; a convenient, digital solution that can save you money on your course materials. The Digital Library offers you access to a complete digital library of **all Pearson textbooks** and MyEducationLabs used across the Division of Special Education and disAbility Research curriculum at a low 1-year or 3-year subscription price. Access codes are available in the school bookstore. Please visit http://gmu.bncollege.com and search the ISBN. To register your access code or purchase the

Digital Library, visit:
http://www.pearsoncustom.com/va/gmu/digitallibrary/education/index.html

- 1 year subscription $200 ISBN-13: 9781269541411
- 3 years subscription $525 ISBN-13: 9781269541381
- Individual e-book(s) also available at the bookstore link above or at http://www.pearsoncustom.com/va/gmu/digitallibrary/education/index.html

Recommended Textbooks
It is recommended that students bring a USB memory drive (also known as jump drives or thumb drives) to class to save student work.

Additional Readings
Additional readings will be discussed and distributed in class.

Course Relationships to Program Goals and Professional Organizations
This course is part of the George Mason University, Graduate School of Education (GSE), Masters in Special Education Program. This program complies with the standards for teacher licensure established by the Council for Exceptional Children (CEC), the major special education professional organization. The CEC standards that will be addressed in this class include Standard 4: Instructional Strategies and Standard 5: Learning Environments and Social Interactions and Standard 6: Language.

GMU POLICIES AND RESOURES FOR STUDENTS:
a. Students must adhere to the guidelines of the George Mason University Honor Code [See http://oai.gmu.edu/the-mason-honor-code/].

b. Students must follow the university policy for Responsible Use of Computing [See http://universitypolicy.gmu.edu/policies/responsible-use-of-computing/].

c. Students are responsible for the content of university communications sent to their George Mason University email account and are required to activate their account and check it regularly. All communication from the university, college, school, and program will be sent to students solely through their Mason email account.

d. The George Mason University Counseling and Psychological Services (CAPS) staff consists of professional counseling and clinical psychologists, social workers, and counselors who offer a wide range of services (e.g., individual and group counseling, workshops and outreach programs) to enhance students' personal experience and academic performance [See http://caps.gmu.edu/].

e. Students with disabilities who seek accommodations in a course must be registered with the George Mason University Office of Disability Services (ODS) and inform their instructor, in writing, at the beginning of the semester [See http://ods.gmu.edu/].

f. Students must follow the university policy stating that all sound emitting devices shall be turned off during class unless otherwise authorized by the instructor.

g. The George Mason University Writing Center staff provides a variety of resources and services (e.g., tutoring, workshops, writing guides, handbooks) intended to support students as they work to construct and share knowledge through writing [See http://writingcenter.gmu.edu/].

PROFESSIONAL DISPOSITIONS
Students are expected to exhibit professional behaviors and dispositions at all times.

CORE VALUES COMMITMENT
The College of Education & Human Development is committed to collaboration, ethical leadership, innovation, research-based practice, and social justice. Students are expected to adhere to these principles. [See http://cehd.gmu.edu/values/]

For additional information on the College of Education and Human Development, Graduate School of Education, please visit our website [See http://gse.gmu.edu/]

Course Policies & Expectations
    Attendance.
    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 weekly lab activities and other assignments. Class participation will be scored as a part of the overall grade as described in the assignment and evaluation section of the syllabus.
    During class time, computers and printers are to be used only for work related to the class. Students found using the computer (whether personal laptop or lab computer) for purposes other than the assigned in class activity will be asked to turn off their equipment and will not receive participation points for that class session.
    In-depth reading, study, and work on course requirements require outside class time. Students are expected to allot approximately three hours for class study and preparation for each credit hour weekly (a three credit hour course would require nine hours of work weekly in a 45-hour, semester course).
    Use APA guidelines for all course assignments. This website links to APA format guidelines. http://www.psywww.com/resource/apacrib.htm. In particular, it is expected that you know how to paraphrase and cite information appropriately to meet both APA guidelines and to avoid plagiarism. This website provides some useful information on how to avoid plagiarism in your writing. http://www.collegeboard.com/article/0,3868,2-10-0-10314,00.html

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.html

Late Work.

Consult with the instructor in advance if there is a problem. In fairness to students who make the 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

TaskStream Submission

Every student registered for any Special Education course with a required performance-based assessment is required to submit this assessment, *Assistive/Instructional Technology Lesson* to TaskStream, (regardless of whether a course is an elective, a onetime course or part of an undergraduate minor). Evaluation of the performance-based assessment by the course instructor will also be completed in TaskStream. Failure to submit the assessment to TaskStream will result in the course instructor reporting the course grade as Incomplete(IN). Unless the IN grade is changed upon completion of the required TaskStream submission, the IN will convert to an F nine weeks into the following semester.

If you have never used TaskStream before, you MUST use the login and password information that has been created for you. This information is distributed to students through GMU email, so it is very important that you set up your GMU email. For more TaskStream information, go to http://cehd.gmu.edu/api/taskstream.

Grading Scale

A	A-	B	C	F
100-95%	94-90%	89-80%	79-79%	<70%

Assignments

Performance-based Assessment (TaskStream submission required).

Assistive Technology Lesson Plan – Details for this assignment are provided in the Common Assignments section

Performance-based Common Assignments (No TaskStream submission required).

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. **(20 points)**

2. **AT Evaluation Paper (Due 9/30):** Students will choose a piece of assistive technology (hardware or software) to evaluate. A brief description of the software should precede a thorough review considering 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 10/14):** 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. **(15 points)**

4. **VoiceThread Show (Due 10/28):** Students will be responsible for designing and implementing a VoiceThread show with the Fairfax County Public Schools VoiceThread subscription. Some VoiceThread shows will be presented in class. Late projects will be penalized. Please refer to the scoring rubric for additional information on this assignment. **(15 points)**

5. **Assistive Technology Instructional Lesson (Due 11/11):** 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. **(30 points)**

This is the signature assignment for EDSE 517 and is submitted to Taskstream.

AT Evaluation Paper (20 points): Due on September 30th
Choose a piece of assistive technology (hardware or software) from our course assistive technology tools list to review. If you are choosing a piece of software, it should be a fairly recent version of a Windows, iOS or Android application. Address the primary features of the assistive technology including accessibility and other topics addressed in class: *Content, User Friendliness, Adult Management Features, Support Materials, and Value*. The review should be 3-4 pages that can be used as a reference for a potential assistive technology user. A graphic representation of the AT should be included. Following the review should be a one-page reflection of your thoughts about the technology, including pros and cons, from your perspective. Ideas regarding classroom integration should be included. Late projects will be penalized.

Exemplary paper (18-20 points): Appropriate assistive technology chosen, thorough and thoughtful review of technology, 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 the AT, good writing style, free of mechanical or stylistic errors. Detailed, yet concise reflection indicating your thoughts about the technology.

Adequate paper (13-17 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 (6-12 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 technology of no value that was not approved for this assignment.

Exemplary paper	Adequate paper	Marginal paper	Inadequate paper	Unacceptable/No paper
18-20	13-17	6-12	1-5	0

Video Tutorial (15 points): Due on October 14th

Choose a piece of assistive technology (software or hardware) of interest. Create a step-by-step tutorial for guiding a new user through a classroom use of the software application or hardware. The software must be a fairly recent version of a Windows, iOS or Android 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. Your final video product will be uploaded to YouTube and you will submit your video link to the instructor. **On the due date, a third of all students will present their tutorials to the class**. Late projects will be penalized.

Exemplary tutorial (13-15 points): The AT tutorial 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.

Adequate tutorial (10-12 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.

Marginal tutorial (4-9 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 (1-3 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
13-15	10-12	4-9	1-3	0

VoiceThread Show (15 points): Due on October 28th
For this project, students will plan and develop a VoiceThread show for integrated classroom use. Students will access their Fairfax County Public Schools VoiceThread to design their show. https://fcps.ed.voicethread.com VoiceThread development materials will be provided in class.

With regard to content, each blog or wiki page contain:
o   A clear instructional purpose for the VoiceThread which guides its content
o   Should be easily readable and understandable
o   Six slides relating to instructional content
o   At least one picture from an internal VoiceThread library
o   At least one external picture
o   Six audio comments
o   Four instances of text within a comment
o   One example of the pen tool in a comment
o   One example of a voice comment from a person other than yourself

On the due date students will share the VoiceThread show with the instructor.
The email address for the instructor is **jlsisk@fcps.edu**
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 access to your VoiceStream Show until the due date; this process can often be confusing and waiting until the last minute can often result in frustration!

Exemplary VoiceThread Show (13-15 points)
A focused slide show that is easy to read and inviting to look at with effective integration of classroom materials. The site meets the creativity and content criteria listed above. Good writing style, free of mechanical or stylistic errors.

Adequate VoiceThread Show (10-12 points): Good overall VoiceThread show, lacking in one or two of the criteria for an exemplary web 2.0 tool. Not entirely reflective or thoughtful, or minor writing style errors may be present.

Marginal VoiceThread Show (4-9 points): Overall, acceptable but with one or more significant problems. Contains some useful information, but may have substantial problems with content, writing style, or design.

Inadequate VoiceThread Show (1-3 points): VoiceThread show with substantial problems in important areas such as writing, recording, accessibility, and overall thoughtfulness. Contains little or no information of value to special education practice.

Unacceptable/No VoiceThread Show (0 points): Blog or wiki with no value whatsoever relative to the assignment, or no blog or wiki turned in at all.

Exemplary paper	Adequate paper	Marginal paper	Inadequate paper	Unacceptable/No paper
13-15	10-12	4-9	1-3	0

Assistive Technology Lesson (30 points): Due on November 11th

This is the signature assignment for EDSE 517
Students will design an interactive computer-based lesson that has been adapted for a specific population and includes on-line and off-line products. This lesson should integrate instructional and assistive technology and should engage students actively with the technology. Students will write a lesson plan in paragraph or bulleted format addressing all the required elements provided by the instructor and create and on-line and off-line product to be used in the lesson.

Assignment Components

Narrative
1) **Lesson Plan** Students will write a lesson plan in paragraph or bulleted format that include the following components:
a) Lesson Topic and Goal to include SOL or ASOL objective
b) Content Area and Grade Level
c) Materials

d) Student Activities*
e) Sample Assessment*
f) Extension ideas

Students should design the lesson plan as a _one period_ activity. For students in high school this could mean either a 40 minute or 90 minute block activity. For elementary students this could be a 20 minute instructional activity, with independent activities occurring later in the day. For young students or students with severe disabilities, instruction may be broken into smaller blocks.

* Students must specify how their online and offline activities fit within the lesson plan. Online and offline activities may be integrated within instructional activities, independent practice or as an assessment activity.

2) **Differentiation** Students will identify specific strategies for differentiating or adapting the developed lesson to serve multiple populations. Specifically, students will identify at least 2 assistive technology devices and strategies that could be beneficial for students with:
a) Cognitive/Intellectual disabilities
b) Physical disabilities
c) Sensory disabilities
d) Communication disabilities, and
e) Learning/Emotional disabilities

For each population, also include a brief explanation as to how/why the assistive technologies you identified would be beneficial within your lesson.

3) **Online Product Description** Students will provide an overview of the online product and explain design choices based on the needs of the specific population for whom this lesson is designed. This section should be 2-3 paragraphs.

4) **Offline Product Description** Students will provide an overview of the offline product which includes the purpose of the offline product, how it was developed, the AT strategies it incorporates, and how it can be integrated into the lesson to benefit students with disabilities. This section should be 2-3 paragraphs.

Online Product

The on-line product is a computer file or web page that you have <u>created</u> as part of your lesson. Examples includes an a) interactive PowerPoint game or storybook, b) IntelliTools Classroom Suite activity, c) Inspiration or Kidspiration activity, d) Pixie activity, e) Clicker

or Cloze Pro activity, or f) Interactive and creative Word or Excel activity (not just an electronic worksheet).

You may select a program that we have learned in class or that you have access to in your classroom, work, or home. Students can use programs learned in class during open lab hours or many are available for a timed trial. Students are not expected to purchase software to complete the assignment.

The Online Product will be evaluated based on:

1) **Advanced Program Features** Students will develop online products that incorporate multiple/advanced features of the software program used to create the activity. These features will vary based on the software program selected but could include addition/manipulation of text, sound, animation, graphics, feedback and reinforcement, options for student response, scoring, and reporting.

2) **Interactivity** Students are expected to develop an online product that is interactive, meaning that target students in the lesson would <u>actively</u> engage with the online product either during instruction, independent practice, or as an assessment activity.

<u>Note</u>: If you use the Internet in your lesson, you should also include an accompanying computer file which <u>you create</u> and with which the students <u>interact</u>.

Off-line Product

Computers can be used to create assistive technology devices and strategies that support students during non-computer-based activities. The off-line product should be designed to be used as part of the lesson, and could be designed for a different population than the target population. The off-line product should support or extend the goal(s) of the lesson. The off-line adaptation should integrate multiple assistive technology strategies (i.e. color, font, layout, texture). Examples of off-line products include a printed PowerPoint book that has been adapted with manipulatives or tactile accents or a visual story map template.

The Offline Product will be evaluated based on:

1) **Relevance** Students should develop an offline activity that is relevant to the lesson and is appropriate for the specified population.

2) **Multiple AT Strategies** Students should integrate multiple (minimum of 3) assistive technology strategies such as the inclusion of color, font, layout, texture, organization, and/or manipulatives within the offline product. Students will explain the incorporation of these strategies within the lesson narrative. The instructor must be able to identify these strategies within the offline product description.

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

Exemplary lesson (18-20 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 (15-17 points): Good overall lesson, lacking in one or two of the criteria for an exemplary lesson. Uses mostly basic software features.

Marginal lesson (10-14 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.

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.

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 and was not approved for this assignment.

Exemplary Lesson	Adequate lesson	Marginal lesson	Inadequate lesson	Unacceptable/No lesson
18-20	15-17	10-14	1-9	0

Other Assignments.

All graded assignments are detailed in the common assignments section. Additional ungraded tasks will be assigned in course meetings.

Schedule

Session Number	Date	Class Activities	Assignments and Due Dates
1	9/9	Lecture and Lab: Introduction to AT	
2	9/16	Lecture and Lab: AT Evaluation. Technology Tools for Teachers.	
3	9/23	Lecture and Lab: Technology Tools for Teachers. Dynamic Media	
4	9/30	Lecture and Lab: AT for Students with Learning Disabilities – Writing Tools	AT Evaluation Due
5	10/7	Lecture and Lab: AT for Students with Learning Disabilities – Reading Tools	
6	10/14	Lecture and Lab: AT for Students with Learning Disabilities - Math Tools. Web 2.0 Tools in the Special Education Classroom.	Video Tutorial Due; Student Presentations
7	10/21	Lecture and Lab: AT for Persons with Physical Impairments	
8	10/28	Lecture and Lab: AT for Persons with Sensory Impairments & Visual Strategies	VoiceThread Assignments Due; Student Presentations
9	11/4	Lecture and Lab: Augmentative Communication	
10	11/11	Lecture & Lab: AT Implementation and Evaluation	Assistive Technology Lesson Plan Due: Student Presentations