



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

Fall 2019

EDSE 517 003: Computer Applications for Special Populations  
CRN 82372, 3 – Credits

<b>Instructor:</b> Dr. Shalu Rana	<b>Meeting Dates:</b> 08/26/2019 – 10/20/2019
<b>Phone:</b> Posted on Blackboard	<b>Meeting Day(s):</b> Online
<b>E-Mail:</b> <a href="mailto:srana8@masonlive.gmu.edu">srana8@masonlive.gmu.edu</a>	<b>Meeting Time(s):</b> NA
<b>Office Hours:</b> By appointment	<b>Meeting Location:</b> NA
<b>Office Location:</b> Skype/Online	<b>Other Phone:</b> (If applicable, if not N/A)

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

**Prerequisite(s):** None

**Co-requisite(s):** None

**Course Description**

Explores the applications of computer technology for instructional programs and computer skills used by teachers of special populations. Provides experience with computer technology designed for special populations. Offered by [Graduate School of Education](#). May not be repeated for credit.

**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 teacher candidates/students should contact Student Services at (703) 348-5006 (Option 2) for assistance.

**Course Instructional Method**

EDSE 517 is an asynchronous online course. Using Blackboard, students are expected to complete assignments weekly and be engaged in course activities throughout the semester.

**Course Delivery Method**

Learning activities include the following:

1. Class lecture, discussion, and participation

2. Group and independent laboratory activities
3. Video and other media supports
4. Research and presentation activities
5. Electronic supplements and activities via Blackboard

This course will be delivered online (76% or more) using an **asynchronous** format via the Blackboard Learning Management system (LMS) housed in the MyMason portal. You will log in to the Blackboard (Bb) course site using your Mason email name (everything before @masonlive.gmu.edu) and email password. The course site will be available in accordance with the posted start date.

**Under no circumstances, may candidates/students participate in online class sessions (either by phone or Internet) while operating motor vehicles. Further, as expected in a face-to-face class meeting, such online participation requires undivided attention to course content and communication.**

### *Technical Requirements*

To participate in this course, students will need to satisfy the following technical requirements:

- High-speed Internet access with standard up-to-date browsers. To get a list of Blackboard's supported browsers see: [https://help.blackboard.com/Learn/Student/Getting\\_Started/Browser\\_Support#supported-browsers](https://help.blackboard.com/Learn/Student/Getting_Started/Browser_Support#supported-browsers)
- To get a list of supported operation systems on different devices see: [https://help.blackboard.com/Learn/Student/Getting\\_Started/Browser\\_Support#tested-devices-and-operating-systems](https://help.blackboard.com/Learn/Student/Getting_Started/Browser_Support#tested-devices-and-operating-systems)
- Students must maintain consistent and reliable access to their GMU email and Blackboard, as these are the official methods of communication for this course.
- Students will need a headset microphone for use with the Blackboard Collaborate web conferencing tool. Blackboard Collaborate Ultra will be used for optional office hours.
- Students may be asked to create logins and passwords on supplemental websites and/or to download trial software to their computer or tablet as part of course requirements.
- The following software plug-ins for PCs and Macs, respectively, are available for free download:
  - Adobe Acrobat Reader: <https://get.adobe.com/reader/>
  - Windows Media Player: <https://support.microsoft.com/en-us/help/14209/get-windows-media-player>
  - Apple Quick Time Player: [www.apple.com/quicktime/download/](http://www.apple.com/quicktime/download/)

### *Expectations*

- Course Week: Because asynchronous courses do not have a “fixed” meeting day, our week will **start on Tuesday, and finish at 11:59pm EST on Monday.**
- Log-in Frequency:  
Students must actively check the course Blackboard site and their GMU email for communications from the instructor, class discussions, and/or access to course materials at least 2 times per week.
- Participation:  
Students are expected to actively engage in all course activities throughout the semester, which includes viewing all course materials, completing course activities and assignments, and participating in course discussions and group interactions.
- Technical Competence:  
Students are expected to demonstrate competence in the use of all course technology. Students who are struggling with technical components of the course are expected to seek assistance from the instructor and/or College or University technical services.
- Technical Issues:  
Students should anticipate some technical difficulties during the semester and should, therefore, budget their time accordingly. Late work will not be accepted based on individual technical issues.
- Workload:  
Please be aware that this course is **not** self-paced. Students are expected to meet *specific deadlines* and *due dates* listed in the **Class Schedule** section of this syllabus. It is the student’s responsibility to keep track of the weekly course schedule of topics, readings, activities and assignments due.
- Instructor Support:  
Students may schedule a one-on-one meeting to discuss course requirements, content or other course-related issues. Those unable to come to a Mason campus can meet with the instructor via telephone or web conference. Students should email the instructor to schedule a one-on-one session, including their preferred meeting method and suggested dates/times.
- Netiquette:  
The course environment is a collaborative space. Experience shows that even an innocent remark typed in the online environment can be misconstrued. Students must always re-read their responses carefully before posting them, so as others do not consider them as personal offenses. *Be positive in your approach with others and diplomatic in selecting your words.* Remember that you are not competing with classmates, but sharing information and learning from others. All faculty are similarly expected to be respectful in all communications.
- Accommodations:  
Online learners who require effective accommodations to insure accessibility must be registered with George Mason University Disability Services.

## **Learner 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 a specific special education population.

### **Course Relationship 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, as well as those established by the Interstate Teacher Assessment and Support consortium (InTASC). The standards addressed in this class include CEC Standard 2: Learning environments (InTASC 3) & CEC Standard 5: Instructional planning and strategies (InTASC 7,8).

### **Required Textbooks**

Dell, A. G., Newton, D., & Petroff, J. (2017). *Assistive technology in the classroom: Enhancing the school experiences of students with disabilities (3rd ed)*. Upper Saddle River, NJ: Pearson.

### **Recommended Textbooks**

American Psychological Association. (2010). *Publication manual of the American Psychological Association (6th ed.)*. Washington, DC: Author.

### **Additional Readings**

Additional readings will be posted on Blackboard.

### **Course Performance Evaluation**

Students are expected to submit all assignments on time in the manner outlined by the instructor (e.g., Blackboard, Tk20, hard copy).

### **Tk20 Performance-Based Assessment Submission Requirement**

It is critical for the special education program to collect data on how our students are meeting accreditation standards. Every teacher candidate/student registered for an EDSE course with a required Performance-based Assessment (PBA) is required to upload the PBA to Tk20 (regardless of whether a course is an elective, a one-time course or part of

an undergraduate minor). A PBA is a specific assignment, presentation, or project that best demonstrates one or more CEC, InTASC or other standard connected to the course. A PBA is evaluated in two ways. The first is for a grade, based on the instructor's grading rubric. The second is for program accreditation purposes. Your instructor will provide directions as to how to upload the PBA to Tk20.

For *EDSE 517*, the required PBA is (NO ASSESSMENT REQUIRED FOR THIS COURSE). Please check to verify your ability to upload items to Tk20 before the PBA due date.

### **Assignments and/or Examinations**

Below is a brief description of the course assessments. More information will be provided prior to each activity/assignment.

#### **Performance-based Assessment (Tk20 submission required)**

None

#### **College Wide Common Assessment (TK20 submission required)**

None

#### **Performance-based Common Assignments (No Tk20 submission required)**

None

#### **Other Assignments**

### **Learning Module Assignments (70 points), Discussions (80 points), Labs (60 points), and Self Checks (20 points)**

Students will participate in various activities in order to explore various applications of assistive and instructional technology. Detailed descriptions and step-by-step instructions for each of the module assignments and labs will be provided by the instructor and posted in the corresponding Learning Module. Students will also complete class textbook and article readings, watch various educational and personal videos, and review specific websites during each Learning Module. In each module, students will be asked to participate in class discussion boards. Students will be asked to make **ONE** thoughtful post (e.g., connecting the information from the module to their personal experiences and ideas) as well as to provide a meaningful response to at least **TWO** of their classmates (unless stated otherwise). The feedback may focus on ways to improve/enhance the post ideas; it may provide ideas on further ways to use assistive/instructional technology; it may describe real life situations when these or similar ideas have been used as well as their outcomes. Finally, students will receive participation points for completing module self checks.

### **Software Review (40 points).**

Students will choose a piece of educational software (or mobile app) of interest to review; it should be a recent version. The software review includes two elements, a written narrative and a completed software evaluation checklist. The narrative should provide a brief description of the

software followed by a thorough review of the software and its possible application within a chosen environment. The review should 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 software review should be 3-4 pages in length and will serve as a reference for a potential software user. Students will use the software review format introduced in class to evaluate the selected software. Please include a copy of your completed evaluation checklist as an Appendix. Students may not review a productivity/utility software program designed to create content (such as Boardmaker, Word, Inspiration/Kidspiration/Webspiration) for this assignment. Please refer to the scoring rubric posted on Blackboard for additional information on this assignment.

### **Technology Tools Assignment (40 points)**

Students will select a broad technology category to research, describe, and analyze based on the needs of an actual student or developed case study. A list of technology categories (i.e. word prediction) will be provided by the instructor. Students will then select two specific technologies within their category (i.e. Co:Writer and TextHelp) as part of their analysis. In a 2-3-page paper, 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 include a recommendation for one of the specific technologies based on the needs of a real client or an invented scenario. 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. Please refer to the scoring rubric posted on Blackboard for additional information on this assignment.

### **Assistive Technology Implementation Project (80 points)**

Students will design an academic or functional activity/lesson intended to support a child(ren) with a disability that integrates assistive technology. Students will discuss the target student and activity goal, the learning environment, activity tasks/procedures and the learning tools. Students will consider how their activity can be differentiated for different disabilities. Students will design and create a custom AT solution using tools and strategies learned during the course. Finally, students will also create a 3-5-minute video walkthrough of their activity plan and created AT product. Please refer to the scoring rubric posted on Blackboard for additional information on this assignment.

<b>Assignment</b>	<b>Number Submitted</b>	<b>Points Each</b>	<b>Total Points</b>
Module Discussions	8	10	80
Module Assignments	7	10	70
Module Labs	4	15	60
Module Self Checks	8	2.5	20
Software Evaluation Assignment	1	40	40
Technology Tools Assignment	1	40	40
AT Implementation Assignment	1	80	80
<b>TOTAL POINTS</b>			<b>390</b>

## **Course Policies and Expectations**

### **Attendance/Participation**

This class does not require any face-to-face or synchronous meetings. However, students are expected to actively engage in all course activities throughout the semester, which includes viewing of all course materials, completing course activities and assignments, and participating in course discussions and group interactions. In addition, optional Office Hours will be offered via Blackboard Collaborate Ultra.

### **Late Work**

All assignments (e.g., quizzes, activities, assignments, projects) must be submitted via Blackboard on or before the due date. In fairness to students who submit work on time, points will be deducted for late submissions (up to 10% per day). Assignments will not be accepted more than 1 week late unless prior arrangements with the instructor have been made.

### **Grading Scale** (traditional rounding principles apply)

93-100% = A

90-92% = A-

87-89% = B+

83-86% = B

80-82% = B-

70-79% = C

< 69% = F

**\*Note:** The George Mason University Honor Code will be strictly enforced. Students are responsible for reading and understanding the Code. “To promote a stronger sense of mutual responsibility, respect, trust, and fairness among all members of the George Mason University community and with the desire for greater academic and personal achievement, we, the student members of the university community, have set forth this honor code: Student members of the George Mason University community pledge not to cheat, plagiarize, steal, or lie in matters related to academic work.” Work submitted must be your own or with proper citations (see <https://catalog.gmu.edu/policies/honor-code-system/>).

## Professional Dispositions

Students are expected to exhibit professional behaviors and dispositions at all times. See <https://cehd.gmu.edu/students/polices-procedures/>.

## Class Schedule

\*Note: Faculty reserves the right to alter the schedule as necessary, with notification to students.

<b>Learning Module</b>	<b>Topic</b>	<b>Textbook Readings*, Weekly Activities &amp; Assignments Due</b>
<b>Learning Module 1</b>	Introduction to Assistive Technology	Chapter 1 <b>Learning Module 1 Activities</b>
<b>Learning Module 2</b>	Mainstream Assistive Technology	Overview of Accessibility Features <b>Learning Module 2 Activities</b>
<b>Learning Module 3</b>	Selecting Software & Apps for Social Skills	Does the App Fit? <b>Learning Module 3 Activities</b>
<b>Learning Module 4</b>	AT for Learning	Chapters 2 and 3 <b>Learning Module 4 Activities</b> <b>Software Review Assignment Due</b>
<b>Learning Module 5</b>	AT for Physical Disabilities	Chapters 8 and 9 <b>Learning Module 5 Activities</b>
<b>Learning Module 6</b>	Augmentative and Alternative Communication	Chapter 10 <b>Learning Module 6 Activities</b> <b>Technology Tools Assignment Due</b>
<b>Learning Module 7</b>	AT for Sensory Disabilities	Chapter 6 <b>Learning Module 7 Activities</b> <b>Module Labs Due</b>
<b>Learning Module 8</b>	AT Implementation	Chapters 13 and 14 <b>Learning Module 8 Activities</b> <b>AT Implementation Project Due</b>

## Core Values Commitment

The College of Education and Human Development is committed to collaboration, ethical leadership, innovation, research-based practice, and social justice. Students are expected to adhere to these principles: <http://cehd.gmu.edu/values/>

## GMU Policies and Resources for Students

### Policies

- Students must adhere to the guidelines of the Mason Honor Code (see <https://catalog.gmu.edu/policies/honor-code-system/>).



- Students must follow the university policy for Responsible Use of Computing (see <http://universitypolicy.gmu.edu/policies/responsible-use-of-computing/>).
- Students are responsible for the content of university communications sent to their Mason 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.
- Students with disabilities who seek accommodations in a course must be registered with George Mason University Disability Services. Approved accommodations will begin at the time the written letter from Disability Services is received by the instructor (see <http://ods.gmu.edu/>).
- Students must silence all sound emitting devices during class unless otherwise authorized by the instructor.

### **Campus Resources**

- Support for submission of assignments to Tk20 should be directed to [tk20help@gmu.edu](mailto:tk20help@gmu.edu) or <https://cehd.gmu.edu/aero/tk20>. Questions or concerns regarding use of Blackboard should be directed to <http://coursessupport.gmu.edu/>.
- For information on student support resources on campus, see <https://ctfe.gmu.edu/teaching/student-support-resources-on-campus>

**For additional information on the College of Education and Human Development, please visit our website <https://cehd.gmu.edu/students/>.**

### **Appendix**

#### **Assessment Rubric(s)**

##### **Rubric for AT Lesson/Activity**

The instructor will evaluate your final project that is submitted at the end of the course using the rubric below.

Assistive Technology Implementation Project Scoring Rubric

	Does Not Meet Expectation	Approaches Expectation	Meets Expectation
Student and Activity Description	<p>0 Points</p> <p>Does not describe pertinent details of student including age, grade, disability and needs. Does not discuss the purpose of activity/lesson or outlines appropriate goals.</p>	<p>5 points</p> <p>Describes some details of student that may include age, grade, disability and needs. Limited discussion of purpose of activity/lesson and/or goals.</p>	<p>10 points</p> <p>Describes pertinent details of student including age, grade, disability and needs. Discusses purpose of activity/lesson and outlines appropriate goals.</p>
Environment	<p>0 Points</p> <p>Does not describe where the activity/lesson will take place or discusses important environmental considerations.</p>	<p>5 points</p> <p>Limited description of where the activity/lesson will take place and/or limited discussion of environmental considerations.</p>	<p>10 points</p> <p>Describes where the activity/lesson will take place and discusses important environmental considerations.</p>
Tasks and Procedures	<p>0 Points</p> <p>Does not describe the specific procedures of the activity/lesson including materials and task steps. Does not describe the custom AT tool and how it is incorporated into the activity/lesson.</p>	<p>5 points</p> <p>Describes some procedures of the activity/lesson and/or limited description AT tool and how it is incorporated into the activity/lesson.</p>	<p>10 points</p> <p>Describes the specific procedures of the activity/lesson including materials and task steps. Describes the custom AT tool and how it is incorporated into the activity/lesson.</p>
AT Tools	<p>0 Points</p> <p>Does not provide specific examples of low, mid, and high-tech tools and strategies that align</p>	<p>5 points</p> <p>Provides some examples of low, mid, and high-tech tools and strategies and/or the tools may not align with</p>	<p>10 points</p> <p>Provides specific examples of low, mid, and high-tech tools and strategies that align with the</p>

	with the activity/lesson goals nor matches target student(s)' needs.	the activity/lesson goals and/or not appropriately match target student(s)' needs.	activity/lesson goals and appropriately match target student(s)' needs.
Differentiation	<p>0 Points</p> <p>Does not identify at least two appropriate AT tools and strategies for each of the 5 identified disability categories. Does not explain how the AT would benefit each disability category is plausible.</p>	<p>5 points</p> <p>Does not identify at least two appropriate AT tools and strategies for each of the 5 identified disability categories or does not adequately or accurately explain how the AT would benefit each disability category.</p>	<p>10 points</p> <p>Identifies at least two appropriate AT tools and strategies for each of the 5 identified disability categories. Explanation of how the AT would benefit each disability category is plausible.</p>
Custom AT Tool Development	<p>0 Points</p> <p>Does not design or demonstrate a custom-created, high-tech or low-tech AT tool that corresponded with the planned activity/lesson.</p>	<p>10 points</p> <p>Designs and demonstrates a custom-created, high-tech or low-tech AT tool that may not corresponded with the planned activity/lesson. The custom AT tool may not be complete and/or be clearly visible in the video presentation.</p>	<p>20 Points</p> <p>Designs and demonstrates a custom-created, high-tech or low-tech AT tool that corresponded with the planned activity/lesson. The custom AT tool is complete and clearly visible in the video presentation.</p>
Student Presentation	<p>0 Points</p> <p>Does not create and post video presentation that include the activity/lesson goal and a brief overview of the student(s), environment(s), tasks, and AT tools.</p>	<p>5 points</p> <p>Creates and posts a video presentation but it may not include discussion of activity/lesson goal and a brief overview of the student(s), environment(s), tasks, and AT tools.</p>	<p>10 points</p> <p>Creates and posts a 3-5 video presentation that include the activity/lesson goal and a brief overview of the student(s), environment(s), tasks, and AT tools.</p>