

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

Spring 2023 EDSE 643 673: Instructional Strategies for Math CRN: 24036, 3 – Credits

Instructor: Dr. Laura Szupinka	Meeting Dates: 1/11/23 – 3/8/23
Phone: 703-791-9310	Meeting Day(s): Wednesday
Zoom:	
E-Mail: lszupink@gmu.edu	Meeting Time(s): 4:30 pm – 9 pm
Office Hours: By appointment	Meeting Location: Off-campus
Office Location: Phone/Zoom Preferred	Other Phone: 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

Integrates foundational knowledge of numeracy acquisition, mathematical concepts, mathematical thinking, mathematics vocabulary, calculation, and problem-solving to plan wellsequenced and explicit math instruction for students with disabilities in the general education curriculum. Examines objectives that align with the general education curriculum Virginia Standards of Learning in mathematics at the elementary, middle, and secondary levels while still providing individualization. Field experience required.

Course Overview

EDSE 643 examines the foundational knowledge of the complex nature of numeracy acquisition and nature of mathematics including mathematical concepts, mathematical thinking, mathematics vocabulary, calculation, and problem-solving, as well as alternative ways to teach content material including curriculum adaptation and curriculum modifications for students with disabilities in the general education curriculum.

Advising Contact Information

Please make sure that you are being advised on a regular basis as to your status and progress in your program. Students in Special Education and Assistive Technology programs can contact the Special Education Advising Office at 703-993-3670 or speced@gmu.edu for assistance. All other students should refer to their assigned program advisor or the Mason Care Network (703-993-2470).

Advising Tip

Are you familiar with Mason career resources? Email speced@gmu.edu to be added to the Special Education employment listserv, and check out Career Services: https://careers.gmu.edu/.

Course Delivery Method

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

Learner Outcomes

Upon completion of this course, students will be able to:

1. Understand curriculum development that includes a scope and sequence, lesson plans, instructional methods, and assessment based on the general education curriculum Virginia Standards of Learning in math at the elementary, middle, and secondary level.

2. Understand, distinguish, and evaluate the differences between procedural, conceptual, and declarative knowledge in order to provide explicit instruction of math to students with disabilities who are accessing the general educational curriculum.

3. Understand foundational knowledge of math including numeracy acquisition, mathematical concepts, mathematical thinking, mathematics vocabulary, calculation, and problem-solving.

4. Demonstrate the ability to identify and distinguish appropriate data-based modifications and accommodations for general or specialized instruction as needed for students with disabilities who access the general education curriculum.

5. Design and demonstrate the application of assistive and instructional technologies to support assessment, planning, and delivery of academic content to students with disabilities who access the general education curriculum.

6. Demonstrate the ability to construct and implement individual educational planning and systematic, explicit instruction for students with disabilities who access the general education curriculum including:

- a. Essential mathematical concepts, vocabulary, and content across general and specialized curriculum
- b. Numeracy acquisition
- c. Problem solving
- d. Calculation

7. Synthesize and then appraise the individual abilities, interests, learning environments, and cultural and linguistic factors in the selection, development, and adaptation of learning experiences for students with disabilities who access the general education curriculum.
8. Apply course concepts to K-12 school settings through field-based learning experiences (e.g., field experiences in K-12 classrooms, field-based case studies, field-based virtual/online learning experiences).

Professional Standards

(Council for Exceptional Children [CEC] and the Interstate Teacher Assessment and Support Consortium [InTASC]). Upon completion of this course, students will have met the following professional standards: CEC Standard 3: Curricular Content Knowledge (InTASC 3, 4); CEC Standard 5: Instructional Planning and Strategies (InTASC 7, 8).

Required Texts

Textbook: Fennell, F., Kobett, B. M., & Wray, J. A. (2017). The formative 5: Everyday assessment techniques for every math classroom. Thousand Oaks, CA: Corwin

Recommended Texts

American Psychological Association. (2020). *Publication manual of the American Psychological Association* (7th ed.). <u>https://doi.org/10.1037/0000165-000</u>

Required Resources See Blackboard

Additional Readings

See Blackboard

Course Performance Evaluation

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

VIA 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 VIA/SLL (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 VIA/SLL.

For EDSE 643, the required PBA is (NO ASSESSMENT REQUIRED FOR THIS COURSE). Please check to verify your ability to upload to VIA/SLL before the PBA due date.

Assignments and/or Examinations

Performance-based Assessment (VIA submission required) N/A

College Wide Common Assessment (VIA submission required) N/A

Field Experience Requirement

A field experience is a part of this course. A field experience includes a variety of early and ongoing field-based opportunities in which candidates may observe, assist, and/or teach. Field experiences may occur in off-campus settings, such as schools (CAEP, 2016). Below are REQUIRED PROCEDURES FOR ALL STUDENTS ENROLLED IN THS COURSE.

1. Complete the online EDSE Field Experience form. This online form will be sent to your GMU email from EDSEfld@gmu.edu on the first day of the semester. Click on the link and complete the form as soon as possible. ALL students should complete the required form, as this information is required by the state. Please direct any questions about the form to Dr. Kristen O'Brien at EDSEfld@gmu.edu.

If you are a full-time contracted school system employee and will complete the field experience at your worksite with administrator and instructor approval, you will be asked to specify the school at which you will be completing the field experience.

If you request a field experience placement, you will receive information via your GMU email about your assigned internship placement from the Clinical Practice Specialist in the College's TEACHERtrack Office. Check your GMU email regularly for important information regarding your field experience. Follow all instructions for the necessary Human Resource (HR) paperwork required to access the assigned field experience placement. Note that you may NOT arrange your own field experience placement.

2. View the EDSE Field Experience Introduction presentation. On the first week of classes and prior to representing George Mason in off-campus settings, your instructor will show a video presentation or provide a link to the presentation, which includes important information about the registration process for EDSE field experiences and tips for a successful field experience. After the presentation, sign the document provided by your instructor to indicate that you have watched the presentation and are aware of the EDSE field experience professionalism expectations.

3. Document your field experience hours. Your instructor may provide you with access to field experience documentation forms to use in documenting the hours and activities completed in your field experience placement. Your instructor will provide more directions on how to use and submit the documentation form.

4. Complete the field experience end-of-semester survey if you had a placement arranged for you. Towards the end of the semester, if you had a field experience arranged for you, you will receive an email from EDSEfld@gmu.edu with a link to an online survey. This brief survey asks you to report about important features of your field experience placement.

5. Students must be able to perform the essential functions of the practicum site assigned with or with without an accommodation. Contact Disability Services (ods@gmu.edu) for questions related to accommodations.

Other Assignments

See class schedule, assignment detail and rubrics available on Blackboard. Assignment Summary

Stations Activity	28 points
Learning Tasks, Attendance, & Participation	45 points
Exit Tickets	27 points
Total Points:	100 points

Student Evaluations of Teaching:

The student evaluation of teaching, or SET, is an online course survey. You are strongly encouraged to complete this form for each course as this feedback helps instructors and administrators improve your class experiences. Towards the end of the course, you will receive email and Blackboard notifications when the evaluations open. Your anonymous and confidential feedback is only shared with instructors after final grades have been submitted. More information about the SET can be found on The Institute of Effectiveness and Planning website at https://oiep.gmu.edu/set/

Course Policies and Expectations

Attendance/Participation

Students are expected to (a) attend all classes during the course, (b) arrive on time, (c) stay for the duration of the class time, and (d) complete all assignments. Attendance, timeliness, and professionally relevant- active participation are expected. Attendance and professional participation at all sessions is particularly important. Please notify me in advance by email (<u>lszupink@gmu.edu</u>) Or message me 703-791-9310.

You are expected to be present, prepared, and exhibit professional dispositions for each class session. Activities resulting in points toward your final grade will be completed during class sessions. Quality of product and completion of the activity within class will impact points earned. Points missed due to absences during class activities cannot be made up without instructor approval and quality completion of alternative assignments.

Quality participation includes:

1. Preparing for and attending class

- **2.** Thoughtfully and professionally contributing to class discussions and learning tasks
- **3.** Being "present" and digitally thoughtful

Late Work

All assignments are due on or before the dates indicated (at the beginning of class). Consult with me in advance if there is a problem meeting the published due dates. When an extension is agreed to by the instructor, we will collaboratively arrive at a mutually agreed upon solution. Note that an extension on one assignment does not impact the due dates on other assignments. Please retain a copy of your assignments in addition to the ones you submit.

Other Requirements

This is a 3-credit graduate level course. Traditionally, 3-credit courses across a 9-week semester require an average of 45 hours (about 2 days) of in-class time and approximately 90 hours (about 4 days) of independent reading and assignment completion. Be prepared to put that amount of time into this class and plan your schedule accordingly and communicate with the instructor when/if challenges arise.

Some assignments require you to synthesize material from the course and outside sources into coherent statements of your ideas. In such cases, your writing should be databased– meaning that you must support statements and ideas with evidence from these sources, giving these sources credit. The standard format for writing in the field of education is outlined in the *Publication Manual of the American Psychological Association, 6th edition* (www.apastyle.org). Specifically, the last version of your Instructional Program should be written in APA style, including a cover page, running head, pagination, headings (as needed), citations (as needed), and reference pages. The citation for this manual is included in the section entitled "Recommended Texts." For an online resource, see www.apastyle.org.

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.plagiarism.org/

Communication

The most efficient way to contact me is through email lszupink@gmu.edu. I check email daily and make every effort to respond in a prompt manner. I will respond within 24 hours-if you have not received a response in this period, please reach out to me again. Please keep in mind that I am a classroom teacher during the day (7:00 am-3:00 pm). On weekends, I will check my GMU account once during each day and will respond to all emails received then. Please alert me through message if you email me so I can respond in a timely fashion.

All assignment expectations and due dates will be reviewed in class and are reflected in the syllabus and course schedule. PLEASE make use of these opportunities to ask for clarification, feedback on drafts, etc. Do not email me an hour before an assignment is due and expect a response. If you would prefer to make alternate arrangements to meet (zoom/phone/before or after class), please do not hesitate to contact me.

Written Language: Students at the graduate level are expected to compose with accuracy (grammar, spelling, other mechanics, form, structure, etc.) and at a conceptual level commensurate with advanced degree study. APA Style is the standard format for any written work in the College of Education and Human Development. If you are unfamiliar with APA format, it would benefit you to purchase the current edition of the Publication Manual of the American Psychological Association. You are required to use APA guidelines for all course assignments as noted in the assignment descriptions. This website links to APA format guidelines: http://apastyle.apa.org.

Oral Language: Use "person-first language" in class discussions and written assignments (and, ideally, in professional practice). In accordance with terminology choices in the disability community, strive to replace the term "Mental Retardation" with "Intellectual Disabilities" in oral and written communication and to avoid language labels by stating, for example, a "student with disabilities" (SWD) rather than a "disabled student." Please refer to guidelines for non handicapped language in APA Journals, including information available at: http://www.apa.org/pi/disability/resources/policy/resolution-ada.pdf and http://supp.apa.org/style/pubman-ch03.15.pdf .

Inclement Weather

If classes are cancelled at George Mason University, a message will be posted on the class Blackboard site and all class members will receive an email. Because such cancellations are often at the last minute, it may be difficult to get this message prior to leaving for class. If in doubt, dial the University phone number (703-993-1000) or visit the university website (www.gmu.edu). I will email you regarding the weather as soon as it is announced. *In the event that Prince William County is closed, and the University remains open, please check your email and blackboard for our alternative instructional plan for the day.*

Grading

Grade	Grading	Grade Points	Interpretation	
Α	94-100	4.00	Represents mastery of the subject through effort beyond	
A-	90-93	3.67	basic requirements	
B +	85-89	3.33	Reflects an understanding of and the ability to apply	
B	80-84	3.00	theories and principles at a basic level	
C*	70-79	2.00	Denotes an unacceptable level of understanding and	
F*	<69	0.00	application of the basic elements of the course	

Note: Final grades below a B do not count toward endorsement; "F" does not meet requirements of the Graduate School of Education.

*Note: The George Mason University Honor Code will be strictly enforced. See <u>Academic</u> Integrity Site (https://oai.gmu.edu/) and <u>Honor Code and System</u>

(<u>https://catalog.gmu.edu/policies/honor-code-system/</u>). 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 new, original work for this course or with proper citations.

Professional Dispositions

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

Class Schedule

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

Day: W	ednesdays	Location: PKMS Room 808	Time: 4:30-9:00	
PayField	Class oly to Mason Tuition d Experience er Textbook	During Class -Bring a laptop to class with charging cord -Review Syllabus & assignments -Power Point: Constructs, Definitions, NCTM Process Standards, & Universal Design -Exit Ticket: Building Community	 Topics Course Overview- Syllabus & Assignments Constructs & Definitions <u>NCTM Process</u> <u>Standards</u> Universal Design 	Week # Date #1 1/11/23 Grade: (/8)
Refl field sele topi shar clas post	d Experience lect on your d Experience, ct one c/concept to re with the s. This will be ted through the pussion board.	-Power Point: Curriculum Development and Feedback -Exit Ticket: One pager or infographic for student selected population.	 Curriculum Development - scope & sequence, lesson plans, instructional methods, & assessment Feedback VA SOLs PWCS Resources 	#2 1/18/23 Grade: (/8)
 Refl field sele topi shar clas post disc Sele 	d Experience lect on your d Experience, ct one c/concept to re with the s. This will be ted through the sussion board. ect hematics topic	 Power Point: Procedural, Conceptual, and Declarative Knowledge Create explicit instruction lesson for a student selected topic & population. Brief presentation and peer evaluation with feedback Exit Ticket: Reflect on the feedback your group received, how can you incorporate that feedback into your instructional practice? 	 Understand: Procedural, Conceptual, and Declarative knowledge Distinguish: I/SG Activity: Explicit Instruction Lesson 	#3 1/25/23 Grade: (/8)

 & population for in class activity. Field Experience Reflect on your field Experience, select one topic/concept to share with the class. This will be posted through the discussion board. Explore <u>Research</u> and Advocacy <u>Main Page -</u> <u>National Council</u> of Teachers of <u>Mathematics</u> (nctm.org) 	-Power Point: Foundational knowledge of Mathematics -Hands on Learning -Exit Ticket Reflection- How will has today's presentation impact you as an educator? Think back to previous experiences and forward to how you will incorporate/ what you need to be able to incorporate in the future	•	Evaluate: Group Activity w/Feedback Understand foundational knowledge of mathematics Dr. Busch guest presenter using hands on learning for ELs	#4 2/1/23 Grade: (/8)
Brainstorming/researc hing what topic and grade level will you investigate? Read Articles located in Blackboard	-Stations: Accommodations & Instructional Considerations -Paper via Clever -I/SG Activity: Student selected topic, grade level, and population. Create student stations (3-5). -Exit Ticket- Instructor will provide feedback, in response, provide corrective action plan.	•	Model Accommodation s & Instructional Considerations: numeracy acquisition, mathematical concepts, mathematical thinking, mathematics vocabulary, calculation, and problem-solving.	#5 2/8/23 Grade: (/8) SA
Apply course concepts to K-12 school settings through field- based learning experiences Post through Discussion Board on Blackboard	 Power Point: Data Based Modifications and Accommodations Case study Activity Exit Ticket- Create a case study demonstrating your ability to Identify & Distinguish DBMA 	•	Identify & distinguish appropriate data- based modifications and accommodations	#6 2/15/23 Grade: (_/8)
Apply course concepts to K-12 school settings	-PowerPoint: Assistive & Instructional Technologies	•	Design and demonstrate the application of	#7 2/22/23

•	through field- based learning experiences Post through Discussion Board on Blackboard Research Assistive and Instructional Technology- post an article that will inform your instructional practices to discussion board on Blackboard.	-Given a lesson plan, students will select how assistive and instructional technologies support assessment, planning, & delivery of academic content. (Present via Flip grid) -Exit Ticket-provide constructive feedback on three Flip grid posts	assistive and instructional technologies to support assessment, planning, and delivery of academic content	Grade: (_/8)
	Apply course concepts to K-12 school settings through field- based learning experiences Post through Discussion Board on Blackboard	 -IEP Planning Activity What data would you be able to review? What are the characteristics of the target student? What are instructional considerations and/or accommodations the student needs to be able to access the general education curriculum? a. Essential mathematical concepts, vocabulary, and content across general and specialized curriculum b. Numeracy acquisition c. Problem solving d. Calculation -Exit Ticket: Submit IEP Planning Activity Summary via Blackboard 	• Construct and implement individual educational planning and systematic, explicit instruction	#8 3/1/23 Grade: (/8) SA
		 -CLT Planning Activity Student Stations Activity (2/8/23) modify stations to meet the need of the student identified in the IEP planning Activity (3/1/23). Exit Ticket: Course Survey 	Synthesize & appraise the individual abilities, interests, learning environments, and cultural and linguistic factors in the selection, development, and adaptation of learning experiences	#9 3/8/23 Grade: (/8) SA

for students with	
disabilities who	
access the general	
education	
curriculum.	

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: See <u>Core Values</u> (<u>http://cehd.gmu.edu/values/)</u>.

GMU Policies and Resources for Students

Policies

- Students must adhere to the guidelines of the Mason Honor Code.See <u>Honor Code and</u> <u>System (https://catalog.gmu.edu/policies/honor-code-system/)</u>.
- Students must follow the university policy for Responsible Use of Computing. See <u>Responsible Use of Computing (http://universitypolicy.gmu.edu/policies/responsible-use-of-computing/</u>).
- 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 <u>Disability Services (https://ds.gmu.edu/)</u>.
- Students must silence all sound emitting devices during class unless otherwise authorized by the instructor.

Campus Resources

- Support for submission of assignments to VIA should be directed to <u>viahelp@gmu.edu</u> or <u>https://cehd.gmu.edu/aero/assessments</u>.
- Questions or concerns regarding use of Blackboard should be directed to <u>Blackboard</u> <u>Instructional Technology Support for Students (https://its.gmu.edu/knowledgebase/blackboard-instructional-technology-support-for-students/)</u>.
- <u>Learning Services (learningservices@gmu.edu)</u> Provides a variety of experience-based learning opportunities through which students explore a wide range of academic concerns. Services include support to students with learning differences, individual study

strategy coaching, individualized programs of study, and referrals to tutoring resources. Presentations on a variety of academic topics such as time management, reading, and note taking are available to the university community. The programs are open to all George Mason University students free of charge.

Notice of mandatory reporting of sexual assault, sexual harassment, interpersonal violence, and stalking:

As a faculty member, I am designated as a "Non-Confidential Employee," and must report all disclosures of sexual assault, sexual harassment, interpersonal violence, and stalking to Mason's Title IX Coordinator per <u>University Policy 1202</u>. If you wish to speak with someone confidentially, please contact one of Mason's confidential resources, such as the <u>Student</u> <u>Support and Advocacy Center (SSAC)</u> at 703-380-1434 or <u>Counseling and Psychological</u> <u>Services (CAPS)</u> at 703-993-2380. You may also seek assistance or support measures from Mason's Title IX Coordinator by calling 703-993-8730, or emailing <u>titleix@gmu.edu</u>.

For additional information on the College of Education and Human Development, please visit our website <u>College of Education and Human Development (http://cehd.gmu.edu/)</u>.

Appendix

Assessment Rubric(s)

45 pts. Possible (5 per class)				
	Does not meet Standard (Little or no evidence)	Approaches Standard (Some evidence)	Meets Standard (Clear evidence)	Exceeds Standard (Clear, convincing, and substantial evidence)
	2	3	4	5
Overall Participation	Very few tasks are completed on time AND/OR completed tasks do not demonstrate thoughtful consideration of the content Collaborate sessions, if scheduled, may	Some tasks for the week are completed on time AND/OR demonstrate thoughtfulness Collaborate sessions, if scheduled, were attended and student was somewhat engaged with	Most tasks for the week are completed on time and demonstrate thoughtfulness Collaborate sessions, if scheduled, were attended and student was often engaged	All tasks for the week are completed on time and demonstrate thoughtfulness Collaborate sessions, if scheduled, were attended and student was consistently and actively

Learning Tasks, Attendance, & Participation Rubric 45 pts. Possible (5 per class)

not have been	peers and	with peers and	engaged with
attended	instructor	instructor	peers and
Rarely	Sometimes	Often	instructor
participates in	participates in	participates in	Consistently
critical	critical	critical	participates in
friend(s) group	friend(s) group	friend(s) group	critical
work	work.	work and	friend(s) group
Feedback may not be meaningful, detailed, and/or constructive	Feedback is not always meaningful, detailed, and/or constructive.	provides meaningful, detailed, and constructive feedback, OR Consistently participates in critical friend(s) group, but feedback is not always meaningful, detailed, or constructive	

Exit Ticket 27 pts. Possible (3 per class)

Does not meet Standard (Little or no evidence)	Meets Standard (Clear evidence)	Exceeds Standard (Clear, convincing, and substantial evidence)
1	2	3
Completed tasks do not demonstrate thoughtful consideration of the content	Completed tasks demonstrate thoughtful consideration of the content	Completed tasks demonstrate thoughtful consideration of the content and original thought/ unique perspective

Does not meet Standard (Little or no evidence)	Approaches Standard (Some evidence)	Meets Standard (Clear evidence)	Exceeds Standard (Clear, convincing, and substantial evidence)
2	3	4	5

Stations Activity 28 pts. Possible (2/8; 3/8)

• Will be generated as a class on 2/8, with instructor final approval.