

George Mason University
College of Education and Human Development
Graduate School of Education: Elementary Education

ELED 257. DL1 – Integrating Technology in PreK-6
3 Credits, Spring 2022
Thursdays, 4:30 – 7:10 PM, Online

Faculty

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Prerequisites/Corequisites

None

University Catalog Course Description

Introduces technology as a tool for working with children across a range of contexts, including early childhood and elementary classrooms. Explores multiple approaches and strategies for technology use in diverse settings. **This course meets the Mason Core Information Technology and Computing requirement.**

Course Overview

Students in this course will participate in individual and group activities that focus on the integration of technology into work with children in diverse settings through use of computers and mobile devices. Students will also participate in large group discussions led by the instructor and in small group discussions and activities with their classmates.

This course fulfills the Mason Core Information Technology and Computing requirement through the following learning outcomes:

1. Students will understand the principles of information storage, exchange, security, and privacy and be aware of related ethical issues.
2. Students will become critical consumers of digital information; they will be capable of selecting and evaluating appropriate, relevant, and trustworthy sources of information.

3. Students can use appropriate information and computing technologies to organize and analyze information and use it to guide decision-making.
4. Students will be able to choose and apply appropriate algorithmic methods to solve a problem.

Course Delivery Method

This course will be delivered online (76% or more) using both synchronous or asynchronous classes (designated in the **Class Schedule** section) format via 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 on January 20th.

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

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

- 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 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: [Add or delete options, as desire.]
 - 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/

Expectations

- Course Week:

Our course week will begin on the day that our synchronous meetings take place as indicated on the Schedule of Classes.

- 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 three times per week. In addition, students must log-in for all scheduled online synchronous meetings.
- 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.

Field Experience:

This course requires 15 hours of field experience in a PK-6 classroom. Due to the recent pandemic and that schools are limiting the number of people in the building, students will have one of three options for field experience this semester.

1. If you are taking other course(s) that require you to have field experience and will be placed in a school you may add on an additional 15 hrs. for this course. Hours should be recorded on the Field Experience log and signed by your cooperating teacher. Please, complete the placement process through the link below by February 15th:

<https://education.gmu.edu/teacher-track-office/student-field-experience/>

2. If you are working in a school you may complete your field hours at that school by observing another teacher. Hours should be recorded on the Field Experience log and signed by your cooperating teacher.
3. For those students whose only course with field experience hours is this one, field experiences will consist of watching videos provided. Students will keep track of the videos they watch to insure they have 15 hours of viewing time. These videos are available in Blackboard.

Learner Outcomes or Objectives

This course is designed to enable students to do the following:

1. understand the principles of information storage, exchange, security, and privacy and be aware of related ethical issues;
2. become critical consumers of digital information; they will be capable of selecting and evaluating appropriate, relevant, and trustworthy sources of information;
3. use appropriate information and computing technologies to organize and analyze information and use it to guide decision-making;
4. choose and apply appropriate algorithmic methods to solve a problem;
5. exhibit knowledge, skills, and work processes representative of an innovative professional in a global and digital society;
6. select appropriate materials, tools, and technologies to achieve instructional goals with all learners;
7. understand the principles of online learning and online instructional strategies and apply the skills to deliver online instruction.
8. understand the Virginia Standards of Learning for Computer Technology and the ability to use technology as a tool for teaching, learning, research, and communication
9. understand, possess, and integrate the knowledge, skills, dispositions, and processes needed to support learners' achievement in an interdisciplinary manner in Virginia's Foundation Blocks for Early Learning: Comprehensive Standards for Four-Year-Olds and the Virginia Standards of Learning in English, mathematics, history and social science, science, and computer technology.

Professional Standards

Upon completion of this course, students will have met the following professional standards:

The Virginia State Technology Standards for Instructional Personnel:

1. Instructional personnel shall be able to demonstrate effective use of a computer system and utilize computer software.
2. Instructional personnel shall be able to apply knowledge of terms associated with educational computing and technology.
3. Instructional personnel shall be able to apply computer productivity tools for professional use.
4. Instructional personnel shall be able to use electronic technologies to access and exchange information.
5. Instructional personnel shall be able to identify, locate, evaluate, and use appropriate instructional hardware and software to support Virginia's Standards of Learning and other instructional objectives.
6. Instructional personnel shall be able to use educational technologies for data collection, information management, problem solving, decision making, communication, and presentation within the curriculum.
7. Instructional personnel shall be able to plan and implement lessons and strategies that integrate technology to meet the diverse needs of learners in a variety of educational settings.
8. Instructional personnel shall demonstrate knowledge of ethical and legal issues relating to the use of technology.

International Society for Technology in Education (ISTE) Standards for Teachers:

1. Learner - Educators continually improve their practice by learning from and with others and exploring proven and promising practices that leverage technology to improve student learning.
2. Leader - Educators seek out opportunities for leadership to support student empowerment and success and to improve teaching and learning.
3. Citizen - Educators inspire students to positively contribute to and responsibly participate in the digital world.
4. Collaborator - Educators dedicate time to collaborate with both colleagues and students to improve practice, discover and share resources and ideas, and solve problems.
5. Designer - Educators design authentic, learner-driven activities and environments that recognize and accommodate learner variability.
6. Facilitator - Educators facilitate learning with technology to support student achievement of the ISTE Standards for Students.
7. Analyst - Educators understand and use data to drive their instruction and support students in achieving their learning goals.

Required Texts

ISTE (2018). *Edtech for the K-12 classroom: ISTE readings on how, when, and why to use technology*. Eugene, Oregon: International Society for Technology in Education.

A list of required readings is available on MyMason. There are readings associated with each module. Some of the articles are available on GMU's e-reserves which can be accessed within Blackboard.

Course Performance Evaluation

Students are expected to submit all assignments on time in the manner outlined by the instructor (e.g., Blackboard or via other website as appropriate for the individual assignment, such as YouTube, FlipGrid, or Google Classroom). Written assignments should be submitted as either a Word document or PDF. Those using Pages should convert the file to a PDF.

- **Assignments and/or Examinations**

Assignment #1: Rewrite a Lesson Plan, 15 points [Outcomes 3, 5, 6, 8, 9]

Students will review one lesson plan of their choosing. They will rewrite the lesson to integrate technology into the curriculum. The lesson plan may focus on the humanities (literacy, social studies, or fine arts) or on STEM (science, mathematics, or engineering). The lesson may involve one student, small group of students, or whole class. Lesson plans will be provided in Blackboard.

Assignment #2: Creation of Technology Resource, 20 points [Outcomes 1, 2, 3, 4, 5, 6, 7, 8]

Working in groups or individually, students will design and create a technology resource around a topic of their choosing. The technology resource should be appropriate for PK-6 students and appropriate Virginia SOLs and or Virginia's Foundation Blocks for Early Learning: Comprehensive Standards for Four-Year-Olds should be identified. The technology resource should be interactive and go beyond just presenting information. Ideas for this assignment could include: creating a virtual fieldtrip (primary sources should be used throughout the VFT), simulation, augmented reality activity, virtual escape room activity. Additional ideas could be discussed with the instructor.

Assignment #3: Online Activities, 27 points [Outcomes 1, 2, 3, 4, 5, 7]

Students complete three online modules. Each online module will be the equivalent of one week of face-to-face time. Online modules are to be completed within the stated time frame. Each module is

worth nine points. Instructions for the online modules are in Blackboard. The four online modules are: Creating E-Books, Fine Arts and Technology, and Digital Storytelling. Each module has students learning about the technology associated with each topic and then using the technology to complete the assignment. For example, students learn about e-books and then create their own e-book; they learn about fine arts and either use a graphic program to create a postcard or a music program to create a song. In the Digital Story module, they will create a multimedia digital story. ***As part of the module, students will write a reflection on what they learned about the technology, how they will use it in the classroom or informal learning environment and why they would use it.***

Assignment #4: Evaluating Websites, 10 points [Outcomes 2, 3]

Students will evaluate 10 websites to determine if they are valid websites or a hoax. Students will explain their reasoning for each website. Students will receive one point for each correctly identified website. Two points will be deducted from final grade if the assignment is submitted late without notifying instructor ahead of time.

Assignment #5: Reflection on Technology Use in Schools, 16 points [Outcomes 5]

During field experience, students will keep a log of how technology is used in the classroom and write a reflection on what they learned. Focus should be on how technology was used and what ISTE standards were addressed.

Assignment #6: Coding with Scratch, 12 points [Outcomes 3, 4]

Students will create an interactive game using Scratch. They will need to apply what they learned about various algorithmic methods to determine the best way to complete the task of designing the game. Scratch Games can be created individually or in a small group (2-3 students). (Note: Students who submit the Hour of Code Certificate within one week of the Coding class session will receive 5 extra credit points. Students who submit the certificate later than one week will receive 3 extra credit points, regardless of the reason.)

Assignment Points

<i>Course Outcomes</i>	<i>Requirements & Assignments</i>	<i>Points</i>	<i>Due Date</i>
3, 5, 6, 8, 9	Rewrite a Lesson Plan	15	Apr. 25
1, 2, 3, 4, 5, 6, 7, 8	Creation of technology resource	20	May 2

1, 2, 3, 4, 5, 7	Online Asynchronous Activities	27	Feb. 7 Feb. 21 Apr. 18
2, 3	Website Evaluations	10	Feb. 28
5, 8, 9	Reflection on Technology Use in Schools	16	May 2
3, 4	Coding with Scratch	12	Apr. 4
		100	

- **Grading**

At George Mason University course work is measured in terms of quantity and quality. A credit normally represents one hour per week of lecture or recitation or not fewer than two hours per week of laboratory work throughout a semester. The number of credits is a measure of quantity. The grade is a measure of quality. The university-wide system for grading undergraduate courses is as follows:

Grade	Grade Points	Quality Points	Undergraduate Courses
A +	100+	4.00	Passing
A	94-100	4.00	Passing
A -	90-93	3.67	Passing
B +	87-89	3.33	Passing
B	84-86	3.00	Passing
B -	80-83	2.67	Passing
C +	77-79	2.33	Passing
C	74-86	2.00	Passing
C -	70-73	1.67	Passing
D	65-70	1.00	Passing
F	<65	0.00	Failing

Note: No credit toward graduation accrues from a failing grade or a grade that is replaced by a retaken course.

Professional Dispositions

See <https://cehd.gmu.edu/students/polices-procedures/>

Class Schedule

Class	Date	Guiding Questions/Topics	Readings/Assignments Due Prior to Class
1	Jan. 27 (Synchronously)	-Introduction to the Course -Syllabus Review -Integrating technology – what and why? -Introduction to ISTE/VSTE -SAMR -Introduction to Google Tools	-Read the syllabus. -Read Chapter 1: ISTE Standards
2	Feb. 3 (Asynchronously)	Creating E-books Module.	-Complete the E-book Module -- Read Chapter 3: Personalized Learning
3	Feb. 10 (Synchronously)	-Discussion on security and privacy issues related to technology. -Exploring online tools (Flipgrid, Nearpod, etc.) -Discussion of ways to keep children safe online.	Creating E-books online assignment due. -Read Chapter 5: Digital and Media Literacy
4	Feb. 17 (Asynchronously)	Fine Arts and Technology Module	-Complete the Fine Arts and Technology Module
5	Feb. 24 (Asynchronously)	-Evaluating websites -Literacy and technology integration	-Fine Arts and Technology online assignment due. -Read Chapter 4: Digital Citizenship
6	Mar. 3 (Synchronously)	- Virtual Escape Rooms - Breakout.edu -Discussion of copyright issues.	-Website evaluations due. - Read Chapter 7: Digital Learning Lessons and Resources

7	Mar. 10 (Synchronously)	- Coding - Video: Mitch Resnick: Let's Teach Kids to Code.	- Read Chapter 6: Digital Equity.
8	Mar. 17	No Class – Spring Break	
9	Mar. 24 (Asynchronously)	-Work on Scratch game.	
10	Mar. 31 (Asynchronously)	-Work on Scratch game.	
11	Apr. 7 (Synchronously)	-Students will share their Scratch games. - Introduction to Digital Storytelling.	-Scratch Games due.
12	Apr. 14 (Asynchronously)	Digital Storytelling	-Complete Digital Storytelling Module
13	Apr. 21 (Synchronously)	-The role of technology in STEM -MakerSpace -AR/VR -Discuss technology resource options	-Digital Storytelling online assignment due.
14	Apr. 28 (Asynchronously)	-Work on the technology resource.	- Review of a Lesson Plan due. - Read: Chapter 2: Support and Community
15	May 5 (Synchronously)	- Sharing technology resource.	-Reflection on Technology Use in Schools due. -Technology Resource due.

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

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 <https://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 <https://ds.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 VIA should be directed to viahelp@gmu.edu or <https://cehd.gmu.edu/aero/assessments>. Questions or concerns regarding use of Blackboard should be directed to <https://its.gmu.edu/knowledge-base/blackboard-instructional-technology-support-for-students/>.
- For information on student support resources on campus, see <https://ctfe.gmu.edu/teaching/student-support-resources-on-campus>

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

As a faculty member, I am designated as a “Responsible Employee,” and must report all disclosures of sexual assault, interpersonal violence, and stalking to Mason’s Title IX Coordinator per University Policy 1202. If you wish to speak with someone confidentially, please contact one of

Mason's confidential resources, such as Student Support and Advocacy Center (SSAC) at 703-380-1434 or Counseling and Psychological Services (CAPS) at 703-993-2380. You may also seek assistance from Mason's Title IX Coordinator by calling 703-993-8730, or emailing titleix@gmu.edu.

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

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

Emergency Procedures

You are encouraged to sign up for emergency alerts by visiting the website <https://alert.gmu.edu>. There are emergency posters in each classroom explaining what to do in the event of crises. Further information about emergency procedures exists on <https://ready.gmu.edu/>