

**GEORGE MASON UNIVERSITY  
COLLEGE OF EDUCATION AND HUMAN DEVELOPMENT  
GRADUATE SCHOOL OF EDUCATION  
Learning Technologies in Schools**

EDIT 504-X01 Introduction to Educational Technology  
3 credits, Summer 2014  
Asynchronous Blackboard (<http://mymason.gmu.edu>)

**PROFESSOR(S):**

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**COURSE DESCRIPTION:**

**A. Prerequisites**

None

**B. University Catalog Course Description**

Examines uses of and issues in educational technology. Explores curriculum integration of technology, and focuses on learning and using commercially available applications software.

**DELIVERY METHOD:**

This course will be delivered online using an asynchronous format via the Blackboard learning management system (LMS) housed in the MyMason portal. You will log in to the Blackboard course site using your Mason email name (everything before “@masonlive.gmu.edu”) and email password. The course site will be available from May 18, 2014 through July 31, 2014.

**TECHNICAL REQUIREMENTS:**

To participate in this course, students will need the following resources:

- High-speed Internet access with a standard up-to-date browser, either Internet Explorer or Mozilla Firefox, Opera, or Safari; and
- Consistent and reliable access to their GMU email and Blackboard, as these are the official methods of communication for this course

**EXPECTATIONS:**

- **Course Week:** Asynchronous courses do not have a “fixed” meeting day and the course will be structured by the following schedule:

Dates	Social Studies	English/Language Arts	Science
May 19 (9 am) – May 23 (9 pm)	Module 1	Module 1	Module 1
May 24 (9 am) – May 28 (9 pm)	Module 2	Module 2	Module 2
May 29 (9 am) – June 2 (9 pm)	Module 3	Module 3	Module 3
June 3 (9 am) – June 7 (9 pm)	Module 4	Module 4	Module 4
June 8 (9am) – June 12 (9 pm)	Begin Module 5	Module 5	Begin Module 5
June 13 (9 am) – June 17 (9 pm)	Complete Module 5	Module 6	Complete Module 5
June 18 (9am) – June 27 (9 pm)	Module 6	Module 7	Module 6
June 28 (9am) – July 7 (9 pm)	Module 7	Module 8	Module 7
July 8 (9am) – July 17 (9 pm)	Module 8	Module 9	Module 8
July 18 (9am) – July 27 (9 pm)	Module 9	Module 10	Module 9
July 28 (9 am) – Aug 4 (9 pm)	Module 10	Final Synthesis	Module 10

- Log-in Frequency:** Students must actively check Blackboard discussion boards and their GMU email for communications from classmates and the instructor. Daily check-ins and communication is recommended.
- Participation:** Students are expected to actively engage in all course activities throughout the semester, which include viewing of all course materials, completing course activities and assignments, and participating in discussions with classmates and the instructor.
- Technical Competence** Students are expected to demonstrate competence in the use of all course technology. Students are expected to seek assistance if they are struggling with technical components of the course.
- Technical Issues:** Students should expect that they could experience some technical difficulties at some point in the semester and should, therefore, budget their time accordingly. Late work will not be accepted based on individual technical issues.
- Workload:** It is the student’s responsibility to keep track of the course schedule, topics, readings, activities, and assignments due.
- Advising:** Advising is usually handled in regular email communications with the instructor. For special assistance, please request phone, video conference, or face to face meeting with mentor/instructor.
- Netiquette:** This course has both a public and a private component. Public components deal with shared activities and shared discussions. A discussion requires continual and frequent participation – a discussion requires back and forth. It is important that you login

to the course at least once a day, adding your thoughts and contributions whenever appropriate. As well as making your own contributions, you should review others' posts to the discussion forums, responding appropriately and in depth. In addition, the course instructor will be posting to the discussion boards as well, often posing extension questions to which you must respond. Responses that state agree or disagree, like or don't like add little to the conversation. Why do you agree or disagree, like or not like? How might you extend or elaborate what others' have contributed, both peers and instructors? Of course, as in any discussion, civility is paramount.

Concerns or personal issues are to be shared via email with the instructor(s) not posted to the group in discussion boards. Always ask yourself - do my comments contribute to the learning and work of all (post to discussion boards) or are my comments related to a matter that applies only to me (email instructor(s))?

Private components of the course are the individual assignments you submit to the instructor or co-instructors. It is perfectly acceptable to discuss ideas with group members or the instructor/co-instructors as you prepare individual assignments, but you are responsible for submitting a final product.

## **LEARNER OUTCOMES**

Course goals include:

1. there are many compelling reasons why technology should play an integral role in the ways we teach the content areas. We explore some of these.
2. Second, technology is not something that is just "added" to the teaching and learning enterprise nor is it best served by "jumping on the bandwagon" of the latest tool or trend. It ought to be a thoughtful enterprise that carefully considers what a particular technology can add to the learning experience. We will explore technology integration and technology affordances.
3. Third, there is an "art" to the design of learning for our students that depends not only on technology use but the thoughtful ways in which we choose to design learning opportunities for our students. We will explore lesson design throughout the course.
4. The problem with these goals is that they take different forms depending on what our learning goals for students are. And, while we all care about our students learning to problem-solve, use information, and develop their literacy skills, there are specific ways in which these more general goals are implemented in different content (discipline) areas. And, that is perhaps, the most important course goal. What does technology integration look like in science classes, in social science classes, in English/language arts classes, in mathematics classes, or in foreign language

classes? To promote in depth discourse that targets the disciplines, students in the course are grouped with others. Science teachers are with other science teachers. Social Studies teachers are with other social studies teachers. Mathematics teachers are with other mathematics teachers. English/language arts teachers are with other English/language arts teachers. Foreign language teachers are with other foreign language teachers.

**PROFESSIONAL STANDARDS** (International Society for Technology Education – NETS for Teachers)

1. Technology Operations and Concepts - Teachers demonstrate a sound understanding of technology operations and concepts. Teachers:
  - A. demonstrate introductory knowledge, skills, and understanding of concepts related to technology
  - B. demonstrate continual growth in technology knowledge and skills to stay abreast of current and emerging technologies.
  
2. Planning and Designing Learning Environments and Experiences - Teachers plan and design effective learning environments and experiences supported by technology. Teachers:
  - A. design developmentally appropriate learning opportunities that apply technology-enhanced instructional strategies to support the diverse needs of learners.
  - B. apply current research on teaching and learning with technology when planning learning environments and experiences.
  - C. identify and locate technology resources and evaluate them for accuracy and suitability.
  - D. plan for the management of technology resources within the context of learning activities.
  - E. plan strategies to manage student learning in a technology-enhanced environment.
  
3. Teaching, Learning, and the Curriculum - Teachers implement curriculum plans, that include methods and strategies for applying technology to maximize student learning. Teachers:
  - A. facilitate technology-enhanced experiences that address content standards and student technology standards.
  - B. use technology to support learner-centered strategies that address the diverse needs of students.
  - C. apply technology to develop students' higher order skills and creativity.
  - D. manage student learning activities in a technology-enhanced environment.
  
4. Assessment and Evaluation - Teachers apply technology to facilitate a variety of effective assessment and evaluation strategies. Teachers:
  - A. apply technology in assessing student learning of subject matter using a variety of assessment techniques.

6. Social, Ethical, Legal, and Human Issues - Teachers understand the social, ethical, legal, and human issues surrounding the use of technology in PK-12 schools and apply those principles in practice. Teachers:

- A. model and teach legal and ethical practice related to technology use.
- B. apply technology resources to enable and empower learners with diverse backgrounds, characteristics, and abilities.
- C. identify and use technology resources that affirm diversity
- D. promote safe and healthy use of technology resources.
- E. facilitate equitable access to technology resources for all students.

**REQUIRED TEXTS:**

No texts required. All reading material is provided on the course Blackboard site.

**COURSE ASSIGNMENTS AND EVALUATION CRITERIA**

**1. Assignments**

- a) Students will complete class readings and participate in all discussion boards. Participation rubric is provided at the end of this syllabus.
- b) Students will complete 5 lesson designs (one at the end of each module) using guidelines provided on the Blackboard course website.
- c) Students will complete a Final Reflection and Synthesis paper using guideline provided on the Blackboard course website.

**2. Assignment Weights and Grading**

Nine participation rubrics (5 points possible for each)	45 points
Five Lesson Design Rubrics (8 points possible for each)	40 points
Final Reflection and Synthesis Paper	15 points

### 3. Grading Scale

84 – 100 points	A
72 – 83 points	B
56 – 71 points	C
Below 28 point	F

### 4. Selected Performance Assessments

This course includes five performance-based assessments – 5 lesson designs completed at the end of modules 5 through 9. Rubric is provided at the end of the syllabus.

## GMU POLICIES AND RESOURCES FOR STUDENTS

- a. Students must adhere to the guidelines of the George Mason University Honor Code (See <http://oai.gmu.edu/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: <http://cehd.gmu.edu/values/>.

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

## **PROPOSED CLASS SCHEDULE**

This course is divided into three segments:

1. Four Introductory Modules that present and develop four broad concepts: why technology in education is important, what technology integration means, why authentic learning ought to be a guiding framework, and how do we think about technology's affordances. Each of these four modules is planned for five days each.

2. Five Content Area Modules in which class participants will focus on the content area they intend to teach. The four conceptual areas addressed in the introductory modules will be examined and applied to the design of learning opportunities in specific content areas. The content area modules are structured around four activities: a conceptual design challenge, a design experience, a set of design examples, and a situated design challenge. Much more about these activity structures before you begin this segment of the course. These modules, for the most part, are planned for 10 days each.

3. A Final Wrap Up Module in which class participants will construct a final synthesis/reflection paper. Specific guidelines for this module will be provided. This module is planned for five days.

The specific class schedule is as follow:

<i>Module</i>	<i>Activities</i>
1 (One Week)	Why Technology? <ul style="list-style-type: none"> <li>• Introducing Yourself</li> <li>• A Scavenger Hunt</li> <li>• Being an Online Learner</li> <li>• Understanding the Technology Stakeholders</li> </ul>
2 (One Week)	What is Technology Integration? <ul style="list-style-type: none"> <li>• Introduction</li> <li>• Building Background</li> <li>• Sharing What You Have Learned</li> </ul>
3 (One Week)	Authentic Learning <ul style="list-style-type: none"> <li>• Three Important Concepts for Technology Integration</li> <li>• ACTS and Three Scenarios</li> </ul>
4 (One Week)	How Do Teachers Integrate Technology <ul style="list-style-type: none"> <li>• Introduction</li> <li>• Building Background Knowledge</li> <li>• Applying What You Have Learned</li> </ul>
5 (Two Weeks)	English/Language Arts: Professional Learning Communities and Teaching Language Mathematics: Problem Solving Social Studies: Historical Chronology

	Science: Cause and Effect
6 (Two Weeks)	English/Language Arts: Teaching Reading - Literature Mathematics: Reasoning and Proof Social Studies: Historical Comprehension Science: Patterns
7 (Two Weeks)	English/Language Arts: Teaching Reading – Informational Text Mathematics: Communication Social Studies: Historical Analysis and Interpretation Science: Scale, Proportion and Quantity & Structure and Function
8 (Two Weeks)	English/Language Arts: Teaching Writing Mathematics: Connections Social Studies: Historical Research Science: Energy and Matter & Stability and Change
9 (Two Weeks)	English/Language Arts: Teaching Speaking and Listening Mathematics: Multiple Representation Social Studies: Issue Analysis and Decision Making Science: Systems and System Models
10 (One Week)	Final Reflection and Synthesis Paper

**ASSESSMENT RUBRIC(S):**

Rubric for Course Participation

<u>Category</u>	<u>Exceeds Expectations</u> 5 points = A	<u>Meets Expectations</u> 4 points = B	<u>Does Not Meet Expectations</u> 3 points or less = C
<i>Assign points for each descriptor; then average—divide by 7.</i>			
<b><u>Quantity of Posts</u></b>			
Makes > 1 original comment per topic			
Makes > 2 substantive responses to others per topic			
Responds to all instructor prompts and questions			
<b><u>Quality of Posts</u></b>			
Provides significant detail from reading adds to the knowledge of the group; cites sources and uses quotes when appropriate; contributes to the learning and work of the group			
Relates to personal experience			
<b><u>Timeliness</u></b>			
Meets deadlines			
Posts over entire period, not in a spurt or 2			
<b><u>Rubric Points Earned:</u></b>			
<b><u>Total Course Points Earned to Date:</u></b>			
<b><u>Comments if Appropriate</u></b>			

Rubric for Lesson Designs

	<b>Exceeds Expectations 8 points</b>	<b>Meets Expectations 6 points</b>	<b>Needs Improvement 4 points</b>
<i>Total Based on Assigned points for each descriptor; then averaged—divide by 7.</i>			
<b>Lesson Overview</b>			
1. Lesson Plan Identifiers	N/A	<i>All 3 lesson identifiers (lesson title, course/subject, grade level) are clearly presented and appropriately related</i>	<i>Identifiers are absent or identifiers (lesson title, course/subject, grade level) are presented but not appropriately coordinated or applied</i>
2. Standards and Objectives	N/A	<i>Clearly presented, appropriately selected, creatively incorporated in the lesson plan</i>	<i>Not included and/or poorly selected, unclear relationship to lesson</i>
3. Context of Lesson	N/A	<i>Well presented, clearly articulated, context described represents appropriate positioning in curriculum sequence</i>	<i>Not clearly articulated, inappropriate or unclear positioning in curriculum sequence</i>
4. Summary of Lesson	<i>Creatively and completely captures the essence of the lesson</i>	<i>Provides a summary of the lesson but is not complete and/or comprehensive</i>	<i>Not present or does not adequately capture the essence of the lesson</i>
5. Resources/Materials	<i>Creatively selected and described, backup plans incorporated, can be realistically obtained/accessed</i>	<i>Present but availability questionable, backup plans not clearly articulated</i>	<i>Not present and/or inappropriately selected and/or not feasible</i>
<b>Lesson Details</b>			
6. Habit(s) of Mind	<i>Insightfully identifies, describes, and justifies habit(s) of mind addressed by the lesson; lesson structure and habit(s) are creatively connected in the lesson</i>	<i>Identifies and describes habit(s) of mind addressed by the lesson; lesson structure and habit(s) are realistically and appropriately connected in the lesson</i>	<i>Does not or poorly identifies and describes habit(s) of mind addressed by the lesson; lesson structure does not support habit(s) of mind targeted</i>

7. Rationale for Technology Integration	<i>Insightfully identifies, describes, and justifies technology selected for the lesson; lesson structure and technology choices are creatively connected in the lesson</i>	<i>Identifies and describes technology choices for the lesson; lesson structure and technology choices are realistically and appropriately connected in the lesson</i>	<i>Does not or poorly identifies and describes technology choices for the lesson; technology choices do not support targeted goals</i>
8. ACTS	<i>All four elements comprehensively included and described; elements fit together as a whole; lesson is insightful and engaging</i>	<i>All four elements included but descriptions are not complete, some elements do not fit together; lesson is adequate but not creative</i>	<i>Elements missing, elements do not fit together; lesson is not structured to achieve learning goals</i>
9. Implementation/ Sequence	<i>Implementation plan fits well within the structure of instruction, is well paced, is creatively planned with sufficient time to accomplish</i>	<i>Implementation plan is present, some inconsistencies with instructional goals, timeframe may be inappropriate</i>	<i>Implementation plan is incomplete, not realistic for classroom, inappropriately addresses curricular standards</i>
10. Evaluation Plan	<i>Comprehensively captures student learning outcomes</i>	<i>Adequately captures most student learning outcomes</i>	<i>Does not provide or inadequately provides for a strategy for capturing student learning outcomes</i>