

EDT 858-503-001

Technology and Instructional Design

Students will learn the foundations of instructional design and understand how to integrate technology in meaningful ways in K-12, higher education or other educational settings. Students will also learn how to develop and assess learning plans that are aligned to technology standards and/or other learning outcomes.

Course Goals

- Students will gain an understanding of and appreciation for instructional design in formal and informal educational settings as well as the role of educational technology by:
 - gaining an understanding of the relationships between different learners' needs and how it is addressed within the design;
 - understanding current research from the learning sciences on how people learn;
 - gaining an understanding of the role of technology in both the understanding and the implementation of effective learning designs;
 - understanding how to meaningfully integrate technology and effectively using it to enhance learning.
- Students will gain an understanding and greater mastery of instructional design and educational technology by:
 - becoming knowledgeable about different learners' needs, including relevant national and state standards;
 - gaining an appreciation for the importance of educational technology in the context of different content areas and learning goals.
 - Students will gain an understanding of research and evaluation of educational technology design by:
 - becoming knowledgeable about general trends in research of educational technology with regard to its implementation and impact in formal and informal settings;
 - being able to identify the tools for planning, developing, implementing and evaluating technology-mediated projects;
- Students will gain ethical perspectives and roles for policy and practice in relation to educational technology implementation by:
 - developing an understanding and commitment to act on principles of social responsibility and ethic practice in education, including areas of equity, privacy, copyright and informed consent policies;
 - developing images of themselves as curriculum developers, instructional designers, agents, consumers and evaluators in the area of educational technology.

Instructor

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Office Hours

Alumnae Hall 234
Mon 2-3:30 PM
Tues 4-6 PM
(ONLINE)

Wed 1-2 PM
(ONLINE)

Required

All readings available on Moodle or as an eBook from the Swirbul Library.

Class Sessions

date	topic	reading(s)	assignments due
Week 1	Introduction	Syllabus (this page) Grading Scheme Tutorials Progress Report	Are You Ready? Quiz
Week 2	Preconceptions	Arbesman (2012) The human side of facts. Donovan and Bransford (2004) Introduction.	
Week 3	Misconceptions	Kirschner and van Merriënboer (2013) Do learners really know best? Additional readings TBD	
Week 4	The Brain	CAST (2014) The variability of learners. Bransford, Brown, and Cocking (2000) Mind and brain.	
Week 5	Experts and Novices	CAST (2014) Expert learning. Bransford, Brown, and Cocking (2000) How experts differ from novices. Case Study #1	
Week 6	Understanding	Wiggins and McTighe (2005) Understanding understanding Wiggins and McTighe (2005) Six facets of understanding Case Study #2	Hands On
Week 7	Models of Technology Integration	Mishra and Koehler (2006) Technological pedagogical content knowledge. National Academies of Sciences, Engineering, and Medicine (2018) Digital technologies. Silver (2018) Edtech is trapped in Ben Bloom's basement.	
Week 8	Universal Design	CAST (2014) Universal design for learning. CAST (2014) Designing for all: What is the UDL curriculum? Case Study #3	Complete either Meta-Reflection or The Conversation by this date

date	topic	reading(s)	assignments due
Week 9	Standards and Needs	Rothwell et al. (2016) Conducting a needs assessment Wiggins and McTighe (2005) Gaining clarity on our goals. Wiggins and McTighe (2005) Essential questions: Crafting understandings.	Hands On
Week 10	Assessments	Wiggins and McTighe (2005) Thinking like an assessor. Wiggins and McTighe (2005) Criteria and validity.	
Week 11	Instructional Design I	CAST (2014) The UDL guidelines: A framework for implementation. Wiggins and McTighe (2005) The six facets of understanding.	
Week 12	Instructional Design II	Wiggins and McTighe (2005) Planning for learning. Wiggins and McTighe (2005) Teaching for understanding.	
Week 13	Thanksgiving		Share the first lesson plan of your Unit Plan.
Week 14	Instructional Design III	Wiggins and McTighe (2005) The design process. Wiggins and McTighe (2005) The big picture: UbD as curriculum framework.	The Future School (final)
Week 15	Instructional Design IV	Bransford and Donovan (2004) Pulling threads.	Both Meta-Reflection and The Conversation should be completed by this date
Week 16	Final Project		Unit Plan or Learning Module

The Conversation

For this assignment, you will be the special guest to my podcast for this course. The podcast will be set up like a talk show. To prepare, all you have to do is to be ready to discuss the readings and the topic of the week. You needn't be an expert on the reading and are encouraged to come with questions to discuss. The podcast is intended to create a more intimate learning community. During the podcast, you will be asked to talk a little bit about yourself so that the rest of the class will know you better. The class will also be invited to send in questions for us to discuss. These should be submitted through a Google Form, Slack or Twitter hashtag as soon as possible. We will try to address these questions during the episode. Prior to the podcast recording, I will share a Google Document with you that outlines the questions we will discuss. You should think of the podcast as a collaboration between you and me, so feel free to shape the podcast. The interview will be done over Google Hangout or phone, so you don't need any special equipment. If you want, you can also record it in person, although that has to happen on the days I am in the Garden City campus. I will take care of the editing and distribution. You should set aside roughly 45-60 minutes, just in case we run into technical issues. Due to the number of students in this class, you may be the only guest or have a fellow guest. Check the Tutorials page for a short video on this assignment.

Hands On

Identify a digital tool that is used to support education. You can use this opportunity to learn a new tool, or you can use one you are already familiar with. If you don't have one in mind, you can pick one from this list. Be sure to have spent enough time using it and not just reading its description. Then, write a short recommendation on whether this tool supports learning, building on the frameworks and concepts we read about and discussed. Your recommendation should include a brief description (that you wrote yourself) of the tool for someone who may not have seen or used it. It should then include discussions on how it aligns with Bloom's Taxonomy and the SAMR Model (which we will discuss) and a learning theory of your choice. It should end with a clear recommendation, which can be positive or negative. (Approximate length: 4-5 pages double-spaced; 1000-1200 words). You can also complete this as a 4-5 minute video.

Meta-Reflection

Metacognitive thinking is when you "think about your thinking." For this assignment, sign up to do one reflection during the semester and look back on the discussions, activities, and assignments of the week. Then, post a 3-5 minute reflection on what you learned. You needn't have read or listened to every student's responses, although you may want to read/listen to more than you usually might. Note that the reflection is not a recap or a summary; it is for you to think about how your thinking and learning developed over the course of doing the readings and engaging in the discussions and activities. To prepare, you might want to take notes on your thinking before, during and after the week. To learn more about metacognition, check out this video. (Approximate length: 3-5 minutes).

Case Study

A case study involves a real-world complex problem that does not have a simple solution. It is presented as a story, often involving dialogue from actual people involved in the incident. Case-based learning is often used in business, engineering, law, and medicine, and increasingly in education to teach problem-solving and critical thinking skills based on actual issues that happen in schools and workplaces. Your case study assignment is made up of three parts: 1) an analysis of a case study we will read as a class to familiar you with the format; 2) a case study you research and write for the class to analyze; and 3) an analysis of one another's cases. Ideally your case study should be based on an actual issue that occurred or is occurring at your workplace. It should be sufficiently complex that it won't have a simple or straightforward solution. It should also be relevant to one or more topics we read in class. The length of the case study will depend on what it is about. You will have a chance to look through many examples to use as a guide.

Final Projects (Pick One)

Unit Plan

This unit plan is to be designed for a particular grade (your choice) between K-12 or an adult learning class. It must align to standards relevant to your content area and it must involve meaningful integration of technology, using the models of technology integration we will discuss. The unit plan should include a set of lesson plans and assessments that go with it. As a guide, traditional unit plans take about a month to teach. We will work on drafts of your unit plan during the semester before the final is due on the last day. You will start with a Unit Plan Organizer while you plan on your proposed unit. Please be sure to include any handouts, resources, definitions, or any additional materials. The unit plan should be clear and comprehensive enough that you can easily hand it off to another teacher to use right away.

Learning Module

The Learning Module is similar to the unit plan, except you are not designing for a K-12 classroom. You will work with a faculty member, FCPE staff, or member of an organization you work with to conduct a needs assessment to find out what the anticipated outcomes are and design a learning module to meet those needs. This activity will be self-guided. After you conduct the needs assessment, you should not over-burden the client you are working with. The client will also have an opportunity to evaluate you.

Participation

This is a graduate course where you are expected to complete weekly readings and fully participate in discussions in class and on Moodle. In order for the discussion to flow smoothly online, you should respond to the forum discussion by the dates noted on the syllabus, and spend the remainder of the week responding to what your peers have posted. Your responses to your peers should be thoughtful, critical and substantive. Your participation grade will be based on the timeliness and quality of your posts, your responses to your peers, and any other activities that might be associated with the week. Your

participation grade is given out on a weekly basis. You can track your participation grade through your Progress Report. Late or missed points cannot be made up, although you can earn points through Power Ups. Any participation posted two days after the deadline cannot be made up. Participation points can only be made up through doing bonus assignments through Power Ups.

Power Ups

Power Ups give you a chance to earn extra credit points. Specific ways that you can earn (and lose!) points are described in the Progress Report. Power Ups are translated into levels. The higher the level, the more Power Ups you will need to level up (like in a video game). You can get as much as five extra points added to your final grade if you reach Level Five. Power Ups are given at the instructor's discretion.

Grades

The Conversation.....	15%
Hands On.....	15%
Meta-Reflection.....	10%
Case Study.....	15%
Final Project.....	30%
Participation.....	15%

University Statement on Academic Integrity

You are expected to behave with the highest level of academic integrity. Cheating and other forms of dishonesty will not be tolerated and will result in the proper disciplinary action from the university. Classroom behavior that interferes with the instructor's ability to conduct the class or ability of students to benefit from the instruction will not be tolerated. All beepers and cellular phones should be turned off while class is in session. You are expected to come to class prepared – this means having read and studied the assigned chapters before class. By having prepared in this manner, you will be able to maximize your time spent in class.

Adelphi University demands the highest standards of academic integrity. Proper conduct during examinations, the proper attribution of sources in preparation of written work, and complete honesty in all academic endeavors is required. Submission of false data, falsification of grades or records, misconduct during examinations, and plagiarism are among the violations of academic integrity. Students who do not meet these standards are subject to dismissal from the University.

The Writing Center

If you would like assistance with writing, revising or editing your papers, utilize the resources of The Writing Center. The center is open to any student, of any ability, who wants to

improve his or her writing process. The Writing Center is in Earle Hall, Lower Level, (516) 877-3145, email: writingcenter@adelphi.edu.

University Statement on Academic Assistance for Students with Disabilities

If you have a disability that may impact your ability to carry out assigned course work, please contact the Student Access Office (SAO), University Center, Room 310, 516.877.3145, sao@adelphi.edu. The staff will review your concerns and determine, with you, appropriate and necessary accommodations. Please allow for a reasonable time frame for requesting ASL Interpreters or Transcription Services.

Student Course Evaluations

During the last two weeks of the class, you will receive notification, via email and eCampus, that the course evaluation is available for your input electronically. Availability will end at the start of the final examination period. Your feedback is valuable and I encourage you to respond. Please be assured that your responses are anonymous and the results will not be available to the instructor until after the end of the semester and therefore after course grades have been submitted.

Use of Student Work

All teacher education programs in New York State undergo periodic reviews by accreditation agencies and the state education department. Additionally, all Adelphi University faculties have their work peer-reviewed regularly including reviews of their teaching performance. For these purposes, samples of students' work are made available to those professionals conducting the review. Student anonymity is assured under these circumstances. If you do not wish to have your work made available for these purposes, please let the professor know before the start of the second class. Your cooperation is greatly appreciated.

******New York State requires 15 hours of instructional time for each credit hour. In this 3 credit course, the required 45 hours consists of 30 instructional hours (27.5 clock hours) of in-class instruction and 15 instructional hours (15.0 clock hours) of extended instruction. Extended instruction refers to "outside of the classroom" learning, the delivery and content of which will be determined by the instructor.

******In this course, extended instruction will consist of the following. In this course, extended instruction will be offered through Moodle discussion board. Students will be asked to view a short video clip and then engage in discussion via a Moodle discussion board. Several questions will be posed to the students in order to engage in thoughtful debate. The instructor will monitor the responses and actively participate in the class discussion. Total Moodle Time: 10 hours.