

## Instructional Technology Foundations and Theories of Learning

EDIT 704, Spring 2005  
Tuesdays, 7:20 – 10:00 pm  
Commerce II, 100

### COURSE DESCRIPTION

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Reviews the practical and pedagogical issues related to the design and development of technological instruction. Emphasizes investigating instructional design as a field and community of practice, as well as reviewing core learning theory constructs applicable to the design of instructional technology.

### RELATIONSHIP OF EDIT 704 TO PROGRAM GOALS AND PROFESSIONAL ORGANIZATION

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This course adheres to the following Instructional Technology Program Goals and Standards for Programs in Educational Communications and Instructional Technologies established by the Association of Educational Communication and Technologies (AECT) under the National Council for the Accreditation of Teacher Education (NCATE).

#### *Standard 1 - Design*

- 1.1.b Identify theories from which a variety of instructional design models are derived and the consequent implications.
- 1.1.2.a Demonstrate in-depth synthesis and evaluation of the theoretical constructs and research methodologies related to instructional design as applied in multiple contexts.
- 1.1.3.b Utilize the research, theoretical, and practitioner foundations of the field in the development of instructional materials.
- 1.1.4.a Conduct basic and applied research related to technology integration and implementation.
- 1.1.5.c Articulate the relationship within the discipline between theory, research, and practice as well as the interrelationships between people, processes, and devices.
- 1.3.a Identify multiple instructional strategy models and demonstrate appropriate contextualized application within practice and field experiences.

### REQUIRED READINGS

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- Dricoll, Marcy P. *Psychology of Learning for Instruction, Third Edition.*
- Medsker and Holdsworth. *Models and Strategies for Training Design.*
- Additional articles/readings are available in ereserves, password "popcorn."

## CLASS ATTENDANCE

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Class attendance is required, and I expect that you will make every effort to be in class on time. Class participation and in-class assignments can be made up for two absences during the semester.

## ASSIGNMENTS

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Assignments are due in class on the day shown on the schedule below. Grading rubrics for assignments will be available on WebCT (or Blackboard). Assignments may be turned in up to one week late with a 10% grade deduction. No late assignments will be accepted beyond one week after the due date. **Exception: The classroom teaching assignment must be completed as scheduled; no late credit will be given for this assignment.**

- **Short paper on learning theory** (250 pts): Select **one** learning theory from the readings or from <http://tip.psychology.org/> (Theory Into Practice Database: TIP) and write a short paper (10-15 pages). The paper should be supported using at least 10-15 references from scholarly journals, books, or credible Web resources, and should be written APA style. Your paper must:
  - Detail the key concepts and principles of the theory and any underlying paradigms or epistemologies
  - Describe the theories implications on instruction
  - Discuss the effectiveness of the theory in achieving its learning goals through its application to instruction (i.e., find a real world example or a research study in which this theory has been implemented in an instructional context and discuss the effectiveness of this application)
- **Two Lesson Plans/Instructor Guides** (100 pts each): Choose an instructional model/strategy (based on one of the learning theories studied in class) and develop one hour of instruction on any topic you choose, using the model/strategy as a guide. Your lesson plan/instructor guide should include objectives, clear instructions for all activities, instructor scripting (if appropriate), and any additional materials needed for the lesson (handouts, job aids, slides, etc.). In addition to the lesson, write a 1-2 page explanation that includes:
  - A brief synopsis of the learning theory and the model/strategy on which you based the lesson
  - An explanation for why you chose that learning theory and/or the particular model/strategy for the topic presented
  - A short description of how your lesson applies the learning theory

- **Reflections** (200 pts): Keep a running log of your thoughts, questions, and ideas about the readings and the class discussions. The expectation is that you write about  $\frac{3}{4}$  to 1 page per week (single spaced) about the readings and class discussions that week. I'm looking for application of specific concepts/terms/ideas – how are the ideas you are learning about reflected in your own learning/teaching experiences? I will read and assign grades on the reflections three times during the semester.
- **Classroom Teaching** (100 pts): One time during the semester, you will present a 30 minute lesson (on a topic of your choice) based on a learning theory or instructional model/strategy. You may have the option to present this with a partner.
- **Class Participation/In-class assignments** (250 pts): You are expected to come to each class prepared and to participate in classroom discussions, and you will be graded on the quality of those contributions. You may be asked to complete in-class assignments either individually or with a group. Class participation and in-class assignments can be made up for two absences during the semester. Contact me within one week for a make-up assignment.

## GRADING SCALE

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Your final grade will be based on the following scale:

<b>A</b>	930 – 1000 pts
<b>A-</b>	900 – 929 pts
<b>B+</b>	870 – 899 pts
<b>B</b>	800 – 869 pts
<b>C</b>	750 – 799 pts
<b>F</b>	749 pts or lower

## PLAGIARISM

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This statement is from the GMU Honor Code:

**B.** Plagiarism encompasses the following:

1. Presenting as one's own the words, the work, or the opinions of someone else without proper acknowledgment.
2. Borrowing the sequence of ideas, the arrangement of material, or the pattern of thought of someone else without proper acknowledgment.

In this class, any plagiarized work will earn a "0" for the entire assignment.

**COURSE SCHEDULE** (subject to change)

<b>Date</b>	<b>Class Topics and Readings Due</b>	<b>Assignments due</b>
1/24	Introductions	
1/31	Introduction to Learning Theories <ul style="list-style-type: none"> <li>• Driscoll, Chapter 1</li> <li>• Reiser, R. (2001). A history of instructional design and technology. (Parts I&amp;II)</li> </ul>	
2/7	Learning Paradigms Radical Behaviorism <ul style="list-style-type: none"> <li>• Ertmer, P.A., &amp; Newby, T.J. (1993). Behaviorism, cognitivism, constructivism: Comparing critical features from an instructional design perspective.</li> <li>• Driscoll, Chapter 2</li> </ul>	
2/14	Behaviorist Models and Strategies <ul style="list-style-type: none"> <li>• Medsker, Chapters 1 and 3</li> </ul>	
2/21	Cognitive Information Processing Behaviorism Presentations <ul style="list-style-type: none"> <li>• Driscoll, Chapter 3</li> <li>• Weinstein &amp; Mayer (1986). The teaching of learning strategies.</li> <li>• Medsker, Chapter 6</li> </ul>	Reflections (4 entries)
2/28	Conditions of Learning Mnemonics Presentation <ul style="list-style-type: none"> <li>• Driscoll, Chapter 10</li> <li>• Medsker, Chapter 4</li> <li>• Reigeluth, C. (1983). Contributions of Gagne and Briggs to a prescriptive model of instruction.</li> </ul>	1 <sup>st</sup> Lesson Plan/Instructor Guide
3/7	Meaningful Learning and Schema Theory 9 Events of Learning Presentation <ul style="list-style-type: none"> <li>• Driscoll, Chapter 4</li> <li>• Medsker, Chapter 9</li> </ul>	
3/14	Spring Break	
3/21	GMU libraries and databases: Sarah Sheehan Meet at Johnson library at 7:45 – Enter the first floor enclosed library, go up one level, find the instructional room at the back in the far right corner	
3/28	Situated Cognition Advance Organizer Presentation <ul style="list-style-type: none"> <li>• Driscoll, Chapter 5</li> <li>• Medsker, Chapter 10</li> </ul>	

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 Phone: 703-855-2337

Date	Class Topics and Readings Due	Assignments due
4/4	Constructivism Cognitive Inquiry Presentation <ul style="list-style-type: none"> <li>• Driscoll, Chapter 11</li> <li>• Medsker, Chapter 11</li> <li>• Bednar, Cunningham, Duffy, &amp; Perry (1992). Theory into practice: How do we link?</li> </ul>	Reflections (4 entries – nothing for library week)
4/11	Interactional Theories of Cognitive Development Constructivism Presentations <ul style="list-style-type: none"> <li>• Driscoll, Chapter 7</li> </ul>	
4/18	Learning and Motivation <ul style="list-style-type: none"> <li>• Driscoll, Chapter 9</li> <li>• Medsker, Chapter 15</li> </ul>	Paper
4/25	Adult Learning Theory ARCS Presentation <ul style="list-style-type: none"> <li>• Medsker, Chapter 16</li> </ul>	
5/2	Lesson Plans discussions Adult Learning Presentation	2 <sup>nd</sup> Lesson Plan/Instructor Guide Reflections (4 entries)
5/9	TBD	
5/17	Conclusion <ul style="list-style-type: none"> <li>• Driscoll, Chapter 12</li> </ul>	