EDUC 5303
Applied Learning Theories
Summer 2021, Online

Instructor: Christopher L. Thomas, Ph.D.
Office: BEP 204
Office Hours: Tuesday & Thursday 3:00 – 4:30 pm (& by appointment)
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COURSE DESCRIPTION:
This course will provide the learner with an overview of major contemporary approaches to the study of human learning. The focus of the course will be the linkage between theory and educational practice. The last day to withdrawal from this course is July 27, 2021.

STUDENT LEARNING OUTCOMES:
After completion of this course, students will be able to:

1. Understand the historical development of contemporary views of human learning
2. Understand and analyze behavioral, cognitive, and social cognitive theories of learning.
3. Understand and analyze developmental perspectives on human learning
4. Apply knowledge of learning theory to the analysis of educational practices

Required Student Resources:

Textbook:

Ormrod, J.E. (2020). *Human Learning (8th Ed.).* Pearson.

ISBN: 978-0134893662

Available from the UTT bookstore or online.

Additional Readings (to be distributed by instructor):

Akpan, B. (2020). Classical and Operant Conditioning—Ivan Pavlov; Burrhus Skinner. In Science Education in Theory and Practice (pp. 71-84). Springer

Ames, C. (1990). Motivation: What teachers need to know. *Teachers college record*, *91*(3), 409-421.

Anderson, R. C. (2018). Role of the reader's schema in comprehension, learning, and memory. In Theoretical Models and Processes of Literacy (pp. 136-145). Routledge.

Center for Education Statistics and Evaluation (2017a). Cognitive Load Research Teachers Really Need to Understand. Retrieved from https://www.cese.nsw.gov.au/publications-filter/cognitive-load-theory-research-that-teachers-really-need-to-understand

Center for Education Statistics and Evaluation (2017b). Cognitive Load Theory in Practice. Examples for the Classroom. Retrieved from https://www.cese.nsw.gov.au//images/stories/PDF/Cognitive_load_theory_practice_guide_AA.pdf

Duit, R., Treagust, D., & Widodo, A. (2008). Teaching science for conceptual change: Theory and practice. In *International handbook of research on conceptual change* (pp. 629-646). Routledge.

Dunlosky, J., Rawson, K. A., Marsh, E. J., Nathan, M. J., & Willingham, D. T. (2013). Improving students' learning with effective learning techniques: Promising directions from cognitive and educational psychology. *Psychological Science in the Public Interest*, *14*, 4-58.

Hulleman, C. S., & Barron, K. E. (2015). Motivation interventions in education: Bridging theory, research, and practice. In Handbook of educational psychology (pp. 174-185). Routledge

Mayer, R. E. (2009). Constructivism as a theory of learning versus constructivism as a prescription for instruction. In S. Tobias & T. M. Duffy (Eds.). *Constructivist instruction: Success or failure* (pp. 184 – 200). New York: Routledge

Mayer, R. E., & Moreno, R. (2003). 9 ways to reduce cognitive load in multimedia learning. *Educational Psychologist, 38,* 43 – 52.

Moreno, R., & Mayer, R. E. (2010). Techniques that increase generative processing in multimedia learning: Open questions for cognitive load research. *Cognitive load theory*, 153-177.

Pashler, H., McDaniel, M., Rohrer, D., & Bjork, R. (2008). Learning styles: Concepts and evidence. *Psychological science in the public interest*, *9*, 105-119.

Sweller, J. (2011). *Cognitive load theory.* In J. P. Mestre & B. H. Ross (Eds.), *The psychology of learning and motivation: Vol. 55. The psychology of learning and motivation: Cognition in education* (p. 37–76). Elsevier Academic Press. https://doi.org/10.1016/B978-0-12-387691-1.00002-8

Van Merrienboer, J. J., & Sweller, J. (2005). Cognitive load theory and complex learning: Recent developments and future directions. *Educational psychology review*, *17*, 147-177.

Supportive (Optional Readings – but potentially useful for projects/LRA's):

Bandura, A. (1977). Self-efficacy: toward a unifying theory of behavioral change. *Psychological Review*, *84*(2), 191 - 215.

Bandura, A. (1989). Human agency in social cognitive theory. *American psychologist*, *44*(9), 1175.

Chinn, C. A., & Brewer, W. F. (1993). The role of anomalous data in knowledge acquisition: A theoretical framework and implications for science instruction. *Review of educational research*, *63*, 1-49

Kirsch, I., Lynn, S. J., Vigorito, M., & Miller, R. R. (2004). The role of cognition of classical and operant conditioning. *Journal of Clinical Psychology, 60(4)*, 369-392.

Nairne, J. S., & Neath, I. (2013). Sensory and working memory. In A. F. Healy & R. W. Proctor (Eds.), *Comprehensive handbook of psychology, second edition, Vol. 4: Experimental Psychology* (pp. 419-445). New York: Wiley.

Neath, I., & Surprenant, A. M. (2005). Mechanisms of memory. In K. L. Lamberts, & R. L. Goldstone (Eds.), *Handbook of cognition* (pp.221-238). London: Sage Publications.

Moreno, R., & Mayer, R. E. (2010). Techniques that increase generative processing in multimedia learning: Open questions for cognitive load research. Cognitive load theory, 153-177.

Moreno, R., & Park, B. (2010). Cognitive load theory: Historical development and relations to other theories. In J.L. Plass, R. Moreno, & R. Brunken (Eds.), *Cognitive load theory* (pp. 9-28). Cambridge: Cambridge Univesity Press.

Rescorla, R. A. (1988). Pavlovian conditioning: It's not what you think it is. American Psychologist, 43, 151 – 160.

Ryan, R. M., & Deci, E. L. (2000). Self-determination theory and the facilitation of intrinsic motivation, social development, and well-being. *American psychologist*, *55*(1), 68.

Schunk, D. H., & Zimmerman, B.J. (2003). Self-regulation and learning. In W.M. Reynolds & G.E. Miller (Eds), *Handbook of Psychology (Volume 7: Educational Psychology),* (pp 59-78). Hoboken, NJ: Wiley.

Skinner, B. F. (1965). The technology of teaching. Proceeding of the Royal Society, 162, 427-443.

Zimmerman, B. J. (2011). Motivational Sources and Outcomes of Self-Regulated Learning and Performance In B. J. Zimmerman & D. H. Schunk (eds.) *Handbook of self-regulation of learning and performance* (pp. 49-64). Routledge.

Course Policies and Expectations:

Course Environment: This is an online course that is delivered through the Canvas Learning Management System. As such, it is imperative that you check Canvas for necessary information and course materials. If you experience technical problems or have a technical question about this course, you can obtain assistance by emailing itsupport@patriots.uttyler.edu. When you email IT Support, be sure to include a complete description of your question or problem including: (1) the title and number of the course, (2) the page in question, (3) If you get an error message, a description and message number, and (4) what you were doing at the time you got the error message.

Written Assignments: All written assignments should be typed (double-spaced, Times New Roman, 12-point font) and submitted by midnight Central Standard Time on the due date. All written assignments should be submitted through the assignment link that I will provide. Please name written assignments using the following convention: last name, first initial, assignment title (ex. Last_F_Assignmenttitle). Assignments completed for other courses may **NOT** be turned in for this course and will be considered **academic dishonesty**.

Email: Questions and concerns about course content and assignments should be submitted to my email. I will make every effort to respond quickly to your emails. Generally speaking, I check email twice a day during the workweek and less frequently on the weekend. If my schedule makes me unavailable to answer emails for an extended period, I will try to post an announcement so that you can plan accordingly. My priority is communicating with you and providing you with the tools needed to be successful in the course, so if there are any problems, we will work to solve them.

Late Work Policy: Late work refers to any course assignment that is submitted after the stated deadline. **Late work will be accepted in this class. However, there will be a 10% penalty for each late day.** Practically, this means that you will not receive credit for an assignment if you submit after 10 or more days. Importantly, the late work policy does not apply to discussion board posts. Discussion board posts and replies will not be accepted after the stated deadline.

Student Assignments & Projects:

The course is designed to be delivered in a "module format." This means that there will be a few different modules that you will work through that include their own readings, assignments, quizzes, and tests. The modules will be presented in a standardized format. The following are standard activities that will be included in the modules:

Readings: This course requires a considerable degree of independent reading to ensure that you develop content mastery. There will be two main reading requirements throughout the semester. Specifically, you will be required to read selections from the course textbook and research articles that I will assign. All research articles will be available on the Canvas site. I will also be posting supplemental readings for many of the

topics that we will cover this semester. These readings are optional and are provided for those who would like to explore the course topics in more detail.

Lecture Videos: Each week, I will post short lecture videos to the Canvas site to support the development of content mastery. The topic of each lecture video(s) will be related to key concepts found within the readings for that week. The lecture video(s) for each topic will be available on the Canvas site each Monday morning beginning at 9:00 am Central Standard Time.

Quizzes: There will be several short quizzes in the semester (roughly one per topic). These will be delivered online and will serve to provide a check of your understanding. The quizzes will also provide you with an idea of the types of questions you may see in the tests).

Self-Reflections. Research shows that metacognition (the ability to reflect on study success and make changes) is critical for success in college. As such, I will be asking you to complete several low-stakes reflections designed to increase metacognitive ability. I will provide information about these assignments later in the semester.

Buddy System. Each of you has been assigned to a "buddy group" for the duration of the course. This means that you now have a small group of peers to reach out to if you are uncertain about something, you need some help, you are struggling, or you need some words of encouragement. Your job is to help each other succeed in this course. You will receive points for creating a plan to support one another and will graded on how "well" you support the success of your peers.

Discussion Boards: You will participate in 9 discussion forums across the semester. The topic for each discussion forum will be the related to the content of the reading and lecture for that week so finishing the reading and watching course lectures early in the week is advisable. The forum postings will be assessed primarily by looking to see that you have contributed your thinking to the topic of the week and can make meaningful connections among topics covered in the course.

Tests: There are three multiple choice tests in this course. The tests will require a full understanding of the theories and applications of those theories, the ability to synthesize the theories presented in the course readings, and the ability to apply the content to examples.

Learning Reflection Assignments: There are also in-depth written assignments (these are called "Learning Reflection Assignments"). These assignments are used to ensure that you can analyze, summarize, and apply the theories in each module. These will be outlined in more detail but are generally short analysis and reflection papers that require the *explanation* **and** *application* of specific theories, personal philosophy statements and defenses for theories of learning and motivation (EX: "what do YOU believe…why? Who agrees with you from the field?").

Research Pool Requirement: Students must fulfill a research pool requirement. The research pool requirement must be completed before the final week of the academic semester. The research requirement for these courses can be satisfied in one of two ways. First, students can fulfill the research pool requirement by volunteering to participate in approved research studies offered by the School of Education. Alternatively, students can satisfy the research pool requirement by completing alternative assignments that are equal in time and effort to the research opportunities. Detailed information about the research requirement can be found on the CANVAS page for the course.

Due Date: Unless stated otherwise, all assignments are due before 11:59 pm on Sunday the week that they appear on the course schedule. Stated another way, each week's assignments are due before Midnight on Sunday.

Grade Item	% of final grade	Total Points
Quizzes	20%	10 quizzes x 20 points per quiz = 200 total points
Tests	15%	3 tests x 50 points per test = 150 total points
Learning Reflection Assignments	30%	3 LRAs X 100 points each = 300 points total
Discussion Board Posts	22.5%	9 DBs x 25 points per post = 225 points total
Buddy System	5%	10 points for support plan 40 points for quality of support across semester
Self-Reflection Assignments	2.5%	12.5 points per reflection
Research Requirement	5%	50 points
Course Total		1000 points

Please note: The number, content focus, and point value of all assessments and assignments is an approximation and may change.

Letter Grades: Letter grades will be assigned using the following guidelines:
A: 90.00% of points or above, B: 80.00% -89.999% of points, C: 70.00% - 79.999% of points, D: 60.00% -69.999% of points, F: 59.999% of points or below

Proposed Semester Schedule					
Date	**Topic(s)**	**Required Reading(s)**	**Supplemental Readings (Optional)**	**Discussion Board Post**	**Assignments**
Week 1					
July 5th – July 10th	Course Orientation and Introduction to the Study of Learning Pavlovian Conditioning Operant Conditioning	Ormrod Chapter 1 Ormrod Chapter 3 Ormrod Chapter 4	Rescorla, 1988 Kirsch et al. (2004) Driscoll, 2005 (Chapter 2) Skinner, 1968	Introductions & Syllabus Reconnaissance (DUE 7/8/2022) Operant Conditioning Application	Quiz: Perspectives on Learning Buddy System Support Plan Quiz: Pavlovian Conditioning Quiz: Operant Conditioning
Week 2					
July 11th – July 17th	Social Cognitive Theory Self-Regulation & Social Emotional Learning	Ormrod: Chapter 5 Zins & Elias, 2007	Bandura, 1977 Bandura, 1989 Bjork et al., 2013 Schunk & Zimmerman, 2003	Self-Efficacy Case Study School level SEL analysis and discussion	Quiz: Social Cognitive Theory Quiz: Self & Emotional Regulation LRA #1 Test #1
Week 3					

July 18th – July 24th	Information processing Theory: Encoding and Storage Information Processing Theory: Retrieval and Forgetting Cognitive Load	Ormrod: Chapter 6 Ormrod: Chapter 7 Ormrod: Chapter 8 (Skip conceptual change content for now). Sweller, 2011 CESE, 2017a	Baddeley, 2012 Neath & Surprenant, 2005 Nairne & Neath, 2013 Miller, 2010 Moreno & Park, 2010	Information Processing Application Evaluation of Educational Application	Self-Reflection #1 Quiz: Information Processing Quiz Cognitive Load
Week 4					
July 25th – July 31st	Complex Cognitive Processes Constructivism & Conceptual Change	Ormrod Chapter 12 Mayer, 2009 Dunlosky et al., 2015 Ormrod Chapter 9 Duit et al., 2008	Ormrod Ch. 10 Chinn and Brewer, 1993 Posner et al., 1981	Promoting Metacognition Application of Conceptual Change	LRA #2 Module #2 Test Quiz: Complex Cognition Quiz: Constructivism
Week 5					
August 1st – August 6th	Motivation	Ormrod: Chapter 15 Ormrod: Chapter 16 Hulleman & Barron, 2016	Ryan & Deci, 2000	Motivational Intervention	Quiz: Motivation Research Requirement Buddy System Peer Review Self-Reflection #2 LRA #3 Test #3

Note: All dates subject to change.

Assessment and Standards Matrix

Learning Outcomes	Assessment (including performance-based)	Standards
Understand, compare, critique, and apply key theories of learning and development	Quizzes Exams Discussions Learning Reflection Assignments Community Engagement Project	**TES**: 1Ai-iii; 1Bi-ii; 1Cii-iii; 1Di; 1Fi-iii; 2Bi-iii; 2Ci-ii; 3Ai-iii; 3Bi- iii; 3Ci; 4Ai-ii; 4Bi-ii; 4Cii-iv; 4Dii-iv; 5Ai-ii; 5Bi-iii; 5Ci-ii; 6Ai-iii;6Bi-ii; 6Dii-iii **ISTE:** 1b, 1c **INTASC:** 1, 2, 3, 4, 5, 8, 9, 10 **PPR:** EC-12 I, II, III
Understand, synthesize, and apply key constructs in cognition and motivation	Quizzes Exams Discussions Learning Reflection Assignments Community Engagement Project	**TES**: 1Ai-iii; 1Bi-ii; 1Cii-iii; 1Di; 1Fi-iii; 2Bi-iii; 2Ci-ii; 3Ai-iii; 3Bi- iii; 3Ci; 4Ai-iii; 4Ci-iii; 4Dii-iv; 5Ai-ii; 5Bi-iii; 5Ci-ii; 6Ai-iii;6Bi-ii; 6Dii **ISTE:** 1b, 1c, 2c, 3b **INTASC:** 1, 2, 4, 7, 8 **PPR:** EC-12 I, II, III
Identify, understand, and use individual difference and contextual factors to promote student learning.	Quizzes Exams Discussions Learning Reflection Assignments Community Engagement Project	**TES**: 2Bi-iii; 2Ci-ii; 3Ai-iii; 3Bi- iii; 3Ci; 4Ai-ii; 4Bi-ii; 4Cii-iv; 4Dii-iv; 5Ai-ii; 5Bi-iii; 5Ci-ii; 5Di-ii; 6Ai-iii;6Bi-ii; 6Dii-iii **ISTE:** 1a, 1b, 1c, 1d, 2a, 2b, 3b **INTASC:** 3, 4, 5, 6, 7 **PPR:** EC-12 III, IV
Analyze and develop classroom scenarios that apply components of key theories of learning and development. to promote student learning.	Quizzes Exams Discussions Learning Reflection Assignments Community Engagement Project Quizzes	**TES**: 1Ai-iii; 1Bi-ii; 1Cii-iii; 1Di; 1Fi-iii; 2Bi-iii; 2Ci-ii; 3Ai-iii; 3Bi- iii; 3Ci; 4Ai-ii; 4Bi-ii; 4Cii-iv; 4Dii-iv; 5Ai-ii; 5Bi-iii; 5Ci-ii; 6Ai-iii;6Bi-ii; 6Dii-iii **ISTE:** 1b, 1c **INTASC:** 1, 2, 3, 4, 5, 8, 9, 10 **PPR:** EC-12 I, II, III

UNIVERSITY POLICIES

UT Tyler Honor Code
Every member of the UT Tyler community joins together to embrace: Honor and integrity that will not allow me to lie, cheat, or steal, nor to accept the actions of those who do.

For a full list of university policies including information related to the topics listed below, click here.

- Students Rights and Responsibilities
- Campus Carry
- Tobacco-Free University
- Grade Replacement/Forgiveness and Census Date Policies
- State-Mandated Course Drop Policy
- Disability Services
- Student Absence due to Religious Observance
- Student Absence for University-Sponsored Events and Activities
- Social Security and FERPA Statement
- Emergency Exits and Evacuation
- Student Standards of Academic Conduct

UT Tyler Resources for Students:

- UT Tyler Writing Center (903.565.5995), writingcenter@uttyler.edu, http://www.uttyler.edu/writingcenter/
- UT Tyler Tutoring Center (903.565.5964), tutoring@uttyler.edu, https://www.uttyler.edu/tutoring/
- The Mathematics Learning Center, RBN 4021, This is the open access computer lab for math students, with tutors on duty to assist students who are enrolled in early-career courses.
- UT Tyler Counseling Center (903.566.7254) https://www.uttyler.edu/counseling/

University Guidelines, Links and Policies

COLLEGE OF EDUCATION AND PSYCHOLOGY (CEP) VISION AND MISSION

Vision: The College of Education and Psychology is nationally recognized and respected for its academic programs and opportunities. It is a center of academic excellence, scholarly inquiry, and public service. The College prepares leaders to meet the critical challenges of the 21st Century through productive contributions to local and global communities and toward individual and cultural equity.
Mission: The mission of the College of Education and Psychology is to provide a positive environment that fosters the acquisition of knowledge and skills. The mission is individually and collectively realized through a community of scholars that contributes to knowledge through scholarly inquiry; organizes knowledge for application, understanding and communication; and provides leadership and service. We affirm and promote global perspectives that value individual and cultural diversity to enhance learning, service, and scholarship.

UT TYLER'S SCHOOL OF EDUCATION STANDARDS FOR EDUCATOR PREPARATION PROGRAMS

Texas Education Standards: The School of Education are committed to teaching and implementing the Texas Educator Standards at the highest level. The School of Education faculty use the Texas Education Standards, along with the Interstate New Teacher Assessment and Support Consortium (InTASC) standards used by educator preparation programs throughout the United States.

The list of Texas Education Standards can be accessed here.

Access the Code of Ethics and Standard Practices for Texas Educators.