**EDUC 5303**
**Applied Learning Theories**
**Summer 2025, Online**

**Instructor:** Christopher L. Thomas, Ph.D.
**Office:** BEP 204
**Office Hours: Office Hours:** Thursday 4:00 – 7:00 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 10, 2024.

**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):**

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

Schunk, D. (2020). *Learning theories: An educational perspective*. Pearson.

**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.

Dekker, S., Lee, N. C., Howard-Jones, P., & Jolles, J. (2012). Neuromyths in education: Prevalence and predictors of misconceptions among teachers. Frontiers in psychology, 429

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

Grospietsch, F., & Mayer, J. (2019). Pre-service science teachers' neuroscience literacy: Neuromyths and a professional understanding of learning and memory. Frontiers in human neuroscience, 13, 20.

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

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.

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

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.

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.

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

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:**

**Use of Artificial Intelligence:** Most assignments in this course will permit using artificial intelligence (AI) tools, such as ChatGPT or Copilot. When AI use is permissible, it will be documented in the assignment description, and all use of AI must be appropriately acknowledged and cited. When using AI tools for assignments, add an appendix showing (a) the entire exchange (e.g., prompts used), highlighting the most relevant sections; (b) a description of precisely which AI tools were used, (c) an explanation of how the AI tools were used (e.g. to generate ideas, elements of text, etc.); and (d) an account of why AI tools were used (e.g. to save time, to surmount writer's block, to stimulate thinking, to experiment for fun, etc.). Using AI tools without appropriate acknowledgment and citation violates UT Tyler's Honor Code, constitutes plagiarism, and will be treated as such. Please contact me if you have questions or concerns about what need to be included in the AI use appendix.

**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. You will be able to take each quiz twice. The highest score will be kept.

**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.

**Traditional Discussion Board:** During the first week of the course, you will complete a traditional discussion board. Specifically, you will introduce yourself and share any questions/concerns you have about the course.

**Synchronous Zoom Group Discussions:** You will participate in several synchronous group discussions this semester. During these meetings, you will discuss course content and how the information can be applied within the classroom. I will provide prompts to help guide your discussion. During the first week of the course, I will ask everyone to share information about their availability and teaching focus. I will use this information to create discussion groups.

**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 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 | 38.70% | 10 quizzes x 30 points per quiz = 300 total points |
| Learning Reflection Assignments | 38.70% | 3 LRAs X 100 points each = 300 points total |
| Discussion Board Posts & Zoom Discussions | 16.12% | 5 DB/ Zooms x 25 points per post = 125 points total |
| Self-Reflection Assignments | 3.22% | 2 reflections x 12.5 points per reflection = 25 points total |
| Research Requirement | 3.22% | 25 points |
| Course Total | | 775 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/Zoom Discussions** | **Other Assignments** |
| **Week 1** | | | | | |
| May 12th – May 18th | Course Orientation and Introduction to the Study of Learning | Ormrod Chapter 1 | | Introductions & Syllabus Reconnaissance (Traditional Discussion) | Quiz: Perspectives on Learning<br><br>Zoom Availability |
| **Week 2** | | | | | |
| May 19th – May 25th | Neuroscience of Learning | Ormrod Chapter 2 | Decker et al., 2012<br><br>Grospietsch & Mayer (2019) | Discussion and Analysis of Neuromyths (Zoom Discussion) | Quiz: Neuroscience of Learning |
| **Week 3** | | | | | |
| May 26th – June 1st | Pavlovian Conditioning | Ormrod Chapter 3 | Rescorla, 1988<br><br>Kirsch et al. (2004) | | Quiz: Pavlovian Conditioning |

| Date | Topic(s) | Required Reading(s) | Supplemental Readings (Optional) | Discussion Board/Zoom Discussions | Assignments |
|---|---|---|---|---|---|
| **Week 4:** | | | | | |
| June 2nd – June 8th | Operant Conditioning | Ormrod Chapter 4 | Driscoll, 2005 (Chapter 2)<br><br>Skinner, 1965 | Operant Conditioning Application (Zoom Discussion) | Quiz: Operant Conditioning |
| **Week 5:** | | | | | |
| June 9th – June 15th | Social Cognitive Theory | Ormrod: Chapter 5 | Bandura, 1977<br><br>Bandura, 1989<br><br>Schunk & Zimmerman (2003). | | Quiz: Social Cognitive Theory |
| **Week 6:** | | | | | |
| June 16th – June 22nd | Information processing Theory: Encoding and Storage | Ormrod: Chapter 6 | | | LRA #1 |
| **Week 7** | | | | | |
| June 23rd – June 29th | Information Processing Theory: Retrieval and Forgetting | Ormrod: Chapter 7 | Driscoll: Ch 3 | | Self-Reflection #1<br><br>Quiz: Information Processing |
| **Week 8** | | | | | |
| June 30th – July 6th | Cognitive Load & Cognitive Theory of Multimedia Learning | CESE, 2017a<br><br>CESE, 2017b | Sweller, 2011<br><br>Moreno, R., & Mayer, R. E. (2010) | | Quiz: Cognitive Load |

| Date | Topic(s) | Required Reading(s) | Supplemental Readings (Optional) | Discussion Board/Zoom Discussions | Assignments |
|---|---|---|---|---|---|
| **Week 9:** | | | | | |
| July 7th – July 13th | Metacognition, Self-Regulated Learning, & Learning Strategies | Ormrod: Chapter 12 | Dunlosky et al., 2015<br><br>Zimmerman, 2011 | Promoting Metacognition (Zoom Discussion) | Quiz: Complex Cognition |
| **Week 10:** | | | | | |
| July 14th – July 20th | Constructivism | Schunk: Chapter 8<br><br>Posner et al., 1981 | Ormrod: Chapter 9<br><br>Ormrod: Chapter 10<br><br>Mayer, 2009<br><br>Duit et al., 2008<br><br>Chinn and Brewer, 1993 | | LRA #2<br><br>Quiz: Constructivism |
| **Week 11** | | | | | |
| July 21st – July 27th | Introduction to Motivation | Ormrod: Chapter 15 | Hulleman & Barron, 2016<br><br>Ryan & Deci, 2000 | | Research Requirement |
| **Week 12:** | | | | | |
| July 28th – August 3rd | Cognitive Factors in Motivation | Ormrod: Chapter 16 | | Motivational Intervention (Zoom Discussion) | Quiz: Motivation |

| Date | Topic(s) | Required Reading(s) | Supplemental Readings (Optional) | Discussion Board Post | Assignments |
|---|---|---|---|---|---|
| **Week 13** | | | | | |
| August 4th – August 9th | | | | | Self-Reflection #2<br><br>LRA #3<br><br>(Both Due Wednesday August 6th) |

**Note: All dates are 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<br><br>Exams<br><br>Discussions<br><br>Learning Reflection Assignments<br><br>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<br><br>**ISTE:** 1b, 1c<br><br>**INTASC:** 1, 2, 3, 4, 5, 8, 9, 10<br><br>**PPR:** EC-12 I, II, III |
| Understand, synthesize, and apply key constructs in cognition and motivation | Quizzes<br><br>Exams<br><br>Discussions<br><br>Learning Reflection Assignments<br><br>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<br>**ISTE:** 1b, 1c, 2c, 3b<br>**INTASC:** 1, 2, 4, 7, 8<br>**PPR:** EC-12 I, II, III |
| Identify, understand, and use individual difference and contextual factors to promote student learning. | Quizzes<br><br>Exams<br><br>Discussions<br><br>Learning Reflection Assignments<br><br>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<br><br>**ISTE:** 1a, 1b, 1c, 1d, 2a, 2b, 3b<br>**INTASC:** 3, 4, 5, 6, 7<br>**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<br><br>Exams<br><br>Discussions<br><br>Learning Reflection Assignments<br><br>Community Engagement Project<br>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<br>**ISTE:** 1b, 1c<br>**INTASC:** 1, 2, 3, 4, 5, 8, 9, 10<br>**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.