GEORGE MASON UNIVERSITY
COLLEGE OF EDUCATION AND HUMAN DEVELOPMENT
EDUCATIONAL PSYCHOLOGY

EDEP 550
Theories of Learning and Cognition
Fall 2014
Monday 4:30-7:10
EAST 122

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CATALOG DESCRIPTION:
Prerequisites: None
Explores theoretical perspectives on learning and cognition, and relation of these theories to construction of learning environments, student motivation, classroom management, assessment, and technology to support teaching and learning.

NATURE OF COURSE DELIVERY
This course is structured around readings, reflections on readings, class projects, technology activities, and writing assignments. This course will be taught using lectures, discussions, and small and large group activities. The Blackboard site for the class can be accessed at: https://mymasonportal.gmu.edu.

For those in the Educational Psychology master's program, review the student Handbook:
http://cehd.gmu.edu/documents/epsychology/edpsych-handbook.pdf

REQUIRED TEXT
Driscoll, M. P. (2005). *Psychology of learning for instruction* (3rd ed.). Boston: Allyn & Bacon.

RECOMMENDED TEXTS
Strunk, W., & White, E. B. (2009). *The Elements of Style* (5th ed.). Boston: Allyn and Bacon. p. xiii.
        ISBN 978-0-205-31342-6.
American Psychological Association. (2009). *Publication manual of the American Psychological
        Association (6th ed.)*. Washington, DC: Author.
APA Style guide summary: https://owl.english.purdue.edu/owl/resource/560/01

SUPPORTING READINGS
Elliot, A. J., & Dweck, C. S. (2005). *Handbook of competence and motivation.* New York: Guilford Press.
Vygotsky, L. S. (1978). *Mind in society: The development of higher psychological processes.* (M. Cole, V.
        John-Steiner, S. Scribner, & E. Souberman, Eds.). Cambridge, Massachusetts: Harvard University
        Press.
Rogoff, B. (2003). *The cultural nature of human development*. Oxford University Press.

A list of additional readings may be provided on Blackboard.

Additional sources:

In preparation for class meetings, you may find these resources useful

- *American Psychological Association*: http://www.apa.org/ed/schools/cpse/
- *Institute of Education Sciences*:
http://ies.ed.gov/ncee/wwc/Publications_Reviews.aspx?f=All%20Publication%20and%20Revie w%20Types,3 and
- *National Resource Council*: http://sites.nationalacademies.org/DBASSE/index.htm
- *What Works Clearinghouse* (reviews of studies with judgments of quality): http://ies.ed.gov/ncee/wwc/ReviewedStudies.aspx
- *GMU Library Info Guides for Education:* http://infoguides.gmu.edu/sb.php?subject_id=27294
- *PsycNet*: http://psycnet.apa.org/index.cfm?fa=search.defaultSearchForm
- *NSF Award Abstracts* (nice source of research activity that's in process but not yet published): http://www.nsf.gov/awardsearch/
- *International Society of the Learning Sciences* (webinars for different takes on some of the topics we will discuss in class): http://isls-naples.psy.lmu.de/intro/all-webinars/index.html

STUDENT OUTCOMES

This course is designed to enable students to:

- Demonstrate an understanding of principles and theories of learning and cognition related to biological, behavioral, cognitive, social learning, and information processing models of learning and memory.
- Develop an increased awareness of the ways in which theories of learning and cognition can be applied to instruction.
- Become familiar with aspects of contemporary issues in education related to the science of learning.
- Understand the relationship between a range of technologies and learning, critical thinking, and problem solving processes.
- Develop an appreciation for and understanding of the variance of developmental and learning needs of culturally diverse and exceptional learners.
- Demonstrate an understanding of how theoretical approaches to learning and cognition relate to classroom management, instruction, and assessment.
- Design instruction that is consistent with the developmental and learning needs of today's students.
- Develop and reinforce critical thinking, oral presentation, technological, and writing skills.

RELATIONSHIP TO PROGRAM GOALS AND PROFESSIONAL ORGANIZATION

Principle 1: The Nature of Learning Process
Principle 2: Goals of the Learning Process
Principle 3: Construction of Knowledge
Principle 4: Strategic Thinking
Principle 5: Thinking about Thinking
Principle 6: Context of Learning
Principle 7: Motivational and Emotional Influences on Learning
Principle 8: Intrinsic Motivation to Learn
Principle 9: Effects of Motivation on Effort
Principle 11: Social Influences on Learning

Principle 13: Learning and Diversity

For more information please see:
American Psychological Association (1997). Learner-Centered Psychological Principles*: Guidelines for the Teaching of Educational Psychology in Teacher Education Programs*. (http://www.apa.org)

COURSE REQUIREMENTS
It is expected that each student will:
1. Read all assigned materials for the course
2. Attend each class session
3. Participate in classroom activities that reflect critical reading of materials
4. Critique and or discuss assigned articles in class
5. Lead class discussion where appropriate
6. Keep a researcher's diary/journal, see:
   http://ejournals.library.ualberta.ca/index.php/IJQM/article/view/8069/9008
7. Write a research proposal and present in a poster session

Technology Policy: *When you are using cell phones, laptops, etc., please be respectful and do not engage in activities that are unrelated to class. Such disruptions may affect your participation grade.*

TASKSTREAM REQUIREMENT (*Important!*)
http://cehd.gmu.edu/api/taskstream
Every student registered for a course with a required performance-based assessment is required to submit this assessment to TaskStream (regardless of whether a course is an elective, a onetime course or part of an undergraduate minor). Evaluation of the performance-based assessment by the course instructor will also be completed in TaskStream. Failure to submit the assessment to TaskStream will result in the course instructor reporting the course grade as Incomplete (IN). Unless the IN grade is changed upon completion of the required TaskStream submission, the IN will convert to an F nine weeks into the following semester.

EDEP 550 Midpoint Assignment
The EDEP 550 (Learning and Cognition) midpoint assessment is a mid-semester take-home that requires analysis of case studies, which satisfies the performance-based assessment for students in the Educational Psychology master's program. The assignment requires candidates: (1) to sample from and use all content covered from the class and out-of-class group work and independent study, and (2) to synthesize their thinking and knowledge to apply to the multifaceted details of each case in a relevant fashion. **Students must upload their analyses of the case studies to Task Stream (see above) in a timely fashion.**

A second set of cases for analysis will be provided later in the semester. All students must complete all the assignments. Scores on the mid-semester cases will count toward the performance-based assessment for students in the Educational Psychology master's program. All scores on all assignments count toward the final grade in the course.

Alignment with Program Standards:
The EDEP 550 (Learning and Cognition) midterm assessment addresses <u>Program Standard 1</u>: *Knowledge of Cognition, Motivation, and Development* and <u>Program Standard 2</u>: *Application of Cognition, Motivation, and Development Knowledge*.
Candidates demonstrate their understanding of the key principles, generalizations and content knowledge involved in domains of cognition, motivation, and development and apply this knowledge to critically analyze and evaluate the case studies presented in the midterm. These program standards also strongly

connect to the CEHD Core Value 4, Research-based practice and Program Disposition IV: Commitment to APA Learner-Centered Principles. The midterm is a written analysis of the cases and thus also addresses Program Standard 6: Communication and Dissemination of Educational Research in that students must demonstrate appropriate writing skills and use of the Publication Manual of the American Psychological Association (APA).

Scoring
The individual cases will be scored separately with their own rubric, which will be posted on Blackboard. For the midpoint assessment, performance on the cases will be judged holistically using the four-point rubric, below.

Rubric for EDEP 550 Mid-Point Case Analyses

This rubric is completed separately from the assignment of points for each question in the assignment (see Scoring Guide for descriptions of point values per question).

Performance Elements or Criteria	4 Exceeds Standards	3 Meets Standards	2 Approaching Standards	1 Does not meet standards
Demonstrates clear knowledge of key concepts related to cases presented in the assignment	Describes key concepts deeply and relates them accurately to key principles	Accurately describes all or almost all key concepts in his or her own words	In most cases, accurately describes key concepts but may be unclear or inaccurate at times	For the majority of concepts, inaccurately and unclearly explains them
Demonstrates ability to apply key concepts in real-life situations	Provides in-depth applications of all key concepts and their relationships to particular cases.	Accurately and clearly explains how all key concepts relate to particular cases.	Is inaccurate or unclear about some of the key concepts	Shows extremely limited grasp of key concepts and their relation to cases.
Analyzes case-study scenarios using appropriate concepts, principles or theories	Goes well beyond clear analyses and provides in-depth explanations	Accurately and clearly relates key concepts, principles or theories to particular cases	Explanations are sometimes superficial or inaccurate	Shows little or no analysis of key concepts, principles or theories
Writes clearly and effectively	Writing is clear with no typos or errors in grammar, punctuation, spelling and word usage.	Writing is clear and focused with minimal minor typos or errors in grammar, punctuation, spelling and word usage.	Writing is sometimes unclear and may contain typos or errors in grammar, punctuation, spelling and word usage.	Writing is fraught with typos or errors in grammar, punctuation, spelling and word usage that make the writing too unclear.

COURSE REQUIREMENTS

A. Attendance and participation (10%)
Because of the importance of lecture and classroom discussions to students' total learning experience, each student is expected to come to class on time and participate in class discussions and activities. Additionally, assigned readings are to be completed before class. Attendance, punctuality, preparation, and active contribution to small and large group activities are essential. These elements of behavior reflect the professional attitude implied in the course goals and will account for 10% of the course grade. In the event students miss a class, the professor should be notified, preferably in advance, and the student is responsible for any assignments and materials passed out or discussed that day. (see Appendix A for attendance and participation rubric)

B. Journal reflections on articles and resources (30%)
At 5 points over the course of the semester, you will be asked to reflect on an article or resource (e.g., webinar, website) of your choice in a public forum on Blackboard. This will allow you to move deeper into some of the topics of the course by reflecting on resources beyond the class text. I will post a bibliography of suggested articles and resources, but you may also bring potential sources to me for approval. Three journal entries will be formally graded at the end of the semester—2 the student selects, 1 the professor randomly selects. The evaluation criteria will be depth of thinking, attention to detail, and creativity. You will be expected to bring up ideas generated through the journaling process in class discussions. You are encouraged to look at others' journals to extend your own thinking, or to help clarify difficult concepts. *If you do use an idea from another student's journal, cite it.*

C. Group project (15%)
Students will form working groups of 4-5 for the second half of the semester, based primarily on similarities in interest and professional goals. Each group will develop a project that will consist of an analysis of an instructional even from the perspectives of several learning theories. The instructional event may be of several different types: an actual classroom situation, written guides (such as instruction manuals), instructive videos, or other presentational formats and learning opportunities. We will discuss the project after we have covered a good portion of the materials for the course. Also, I'm leaving open the possibility of another kind of assignment that could contribute well to the group's learning, so talk to me if you have ideas!

D. Oral presentation of group project (5%)
Each group will be asked to use audio-visual aids like power point slides to tell the whole group about (a) the product they have created, (b) the process of collaborative group work, and (c) ways they think this project could be used in organizations like schools or non-profits.

E. Two case analyses (40% total--20% each)
You will complete 2 case analysis writing assignments in which you will analyze real-life practical situations and apply or discuss the concepts from class. The first case study analysis will cover material read or discussed through October 14 and will be due October 20. The second one will cover material from the second half of the course and will be due December 8. The assignments will be given out a week prior to the due date.

Your final grade for this class will be based on the following:
      A+ = 98 – 100%   A = 93 – 97.99%   A- = 90 – 92.99%
      B+ = 88 – 89.99%   B = 83 – 87.99%   B- = 80 – 82.99%
      C = 70 – 79.99%   F < 70%

ADDITONAL CLASS POLICIES
Format for written work
- 1-inch margins on all sides, double-spaced, 12-point Times New Roman font.
- Include the following information: title, name, date, professor, course number.
- Fully proofread for spelling, grammar, and clarity errors and citation and references in APA format.

Late assignments

Late assignments will be marked down by half a letter grade for each day the assignment is late. If there are questions or concerns about a particular situation, please contact me via email in advance of the deadline

COLLEGE OF EDUCATION AND HUMAN DEVELOPMENT STATEMENT OF EXPECTATIONS:

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/the-mason-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 GSE Syllabi:

For additional information on the College of Education and Human Development, Graduate School of Education, please visit our website [See http://gse.gmu.edu/] For RHT Syllabi:

For additional information on the College of Education and Human Development, Graduate School of Education, please visit our website [See http://rht.gmu.edu/]

Course Schedule*
*This is a tentative course schedule and may change. The most current schedule will be available on the Blackboard site.

Date	Class Topics/Activities	Readings/Assignments Due
Week 1 Aug 25	Introduction and Overview	
Week 2 Sept 1	Labor Day: University Closed	
Week 3 Sept 8	Introduction to theories of learning and instruction	Driscoll, Ch. 1
Week 4 Sept 15	Motivation and self-regulation	Driscoll, Ch. 9
Week 5 Sept 22	Behaviorism	Driscoll, Ch. 2 First journal **due on Blackboard**
Week 6 Sept. 29	Gagne's theory of instruction	Driscoll, Ch. 10
Week 7 Oct 6	Cognitive information processing	Driscoll, Ch. 3 Second journal **due on Blackboard**
Week 8 **TUE,** Oct 14	Situated learning	Driscoll, Ch. 5 First case study posted 10/13
Week 9 Oct 20	Schema theory and meaningful learning	Driscoll, Ch. 4 First case study **due on Blackboard by start of class**
Week 10 Oct 27	Cognitive and knowledge development	Driscoll, Ch. 6 Third journal **due on Blackboard** Group member names and topic **due in class**
Week 11 Nov 3	Interactional theories of cognitive development	Driscoll, Ch. 7 Fourth journal **due on Blackboard**
Week 12 Nov 10	Biological bases of learning and development	Driscoll, Ch. 8 Group project outline **due in class**
Week 13 Nov 17	Constructivism	Driscoll, Ch. 11 Fifth journal **due on Blackboard**
Week 14 Nov 24	Wrap-up and overview	Driscoll, Ch. 12 Group project **due in class**
Week 15 Dec 1	Group project presentations	Second case study posted
Exam Week		Second case study **due on Blackboard by Dec. 8** Upload 2 best journal entries **on Blackboard by Dec. 8**

Appendix A
Attendance and Participation Rubric

Student participation is imperative to student learning and a successful class. The following rubric outlines how student participation scores will be determined in this course. All students are expected to demonstrate specific characteristics and actions throughout the semester. The quality and quantity of these actions will determine the points assigned for participation.

Students are expected to:

a. Be punctual, present (in mind and body), and well prepared for class.
b. Participate fully in class activities and assignments—take an active part in small and large group discussions (without dominating conversations) and pay attention to class lectures.
c. Make insightful comments, which are informed by required readings and demonstrate reflection on those readings. Specifically, students should come to class with questions, comments, and thoughts on the current readings.
d. Treat class activities, group discussions, and class discussions as important components of the course, showing respect for fellow classmates and the course material.
e. Avoid using electronic devices for personal communication or other non-class-oriented purposes during class time.

Each of these criteria will be assessed on a 5-point scale:

5 = Student *consistently* demonstrated the criterion throughout the semester.
4 = Student *frequently* demonstrated the criterion throughout the semester.
3 = Student *intermittently* demonstrated the criterion throughout the semester.
2 = Student *rarely* demonstrated the criterion throughout the semester.
1 = Student *did not* demonstrate the criterion throughout the semester.