GEORGE MASON UNIVERSITY
COLLEGE OF EDUCATION AND HUMAN DEVELOPMENT
GRADUATE SCHOOL OF EDUCATION

EDEP 550:001
Theories of Learning and Cognition
Fall 2005
Thursday (4:30–7:10 p.m.)
Robinson B, Rm 111

PROFESSOR

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Office Phone: (202) 806-8503
Office Hours: Thursday, 7:10–8:10 p.m. and by appointment
Email: jbutty@gmu.edu

COURSE DESCRIPTION

This course explores theoretical perspectives on learning and cognition and the relation of these theories to the construction of learning environments, student motivation, classroom management, assessment, and the role of technology to support teaching and learning.

NATURE OF COURSE DELIVERY

The course is structured around readings, reflections on those readings, class projects, technology activities, and exams. This course will be taught using lectures, discussions, and relevant group activities. The course has a Blackboard site: http://blackboard.gmu.edu.

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 theoretical/research frameworks for explaining differences between novice and expert learners, critical thinking, creativity, and problem solving.
- 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 ORGANIZATIONS

The program goals are consistent with the following learner-centered psychological principles (APA Division 15) outlined by the American Psychological Association Presidential Task Force in Education.

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 Effect
Principle 10: Developmental Influences on Learning
Principle 11: Social Influences on Learning
Principle 12: Individual Differences in Learning
Principle 13: Learning and Diversity
Principle 14: Standards and Assessment

Please see:

REQUIRED TEXT


SUPPLEMENTARY READINGS


**COURSE REQUIREMENTS, PERFORMANCE-BASED ASSESSMENT, AND EVALUATION CRITERIA:**

1. **Attendance and Participation:** Due to the importance of lectures and classroom discussions to your total learning experience, each student is expected to attend class regularly and participate in class discussions. Readings must be completed **before class**. Attendance, punctuality, preparation, and active contribution to small and large group efforts are essential. These elements of your behavior reflect the professional attitude implied in the course goals and will account for 10% of your course grade. If you must miss a class, notify the instructor (preferably in advance); however, you are still responsible for completing all assignments and readings for the next class. You are also responsible for getting assignments in on time and catching up if you are absent. (See rubric for attendance and participation.)

2. **Abstracts:** Each student is required to prepare three (3) abstracts of recent articles (within the last five years) that address any aspect of human learning (abstract guidelines will be provided).

3. **Oral Presentation:** Each student will select a relevant article related to a chapter to review and make a detailed oral report to the class. Students are expected to present the class with an outline of their presentation, a one-page summary showing the relationship between the article and the chapter, and a copy of the article. Feel free to make your presentations as creative as possible.

4. **Mini projects:** Mini individual and group projects will be assigned throughout the course.

5. **Examinations:** Three examinations will be administered during the course.
RUBRIC FOR ATTENDANCE AND PARTICIPATION

<table>
<thead>
<tr>
<th>ELEMENT</th>
<th>Distinguished (9-10 pts.)</th>
<th>Proficient (8 pts.)</th>
<th>Basic (7 pts.)</th>
<th>Unsatisfactory (6 or less pts.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Attendance &amp; Participation</td>
<td>The student attends all classes, is on time, is prepared and follows outlined procedures in case of absence; the student actively participates and supports the members of the learning group and the members of the class.</td>
<td>The student attends all classes, is on time, is prepared and follows outlined procedures in case of absence; the student makes active contributions to the learning group and class.</td>
<td>The student is on time, prepared for class, and participates in group and class discussions. The student attends all classes and if an absence occurs, the procedure outlined in this section of the syllabus is followed.</td>
<td>The student is late for class. Absences are not documented by following the procedures outlined in this section of the syllabus. The student is not prepared for class and does not actively participate in discussions.</td>
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EVALUATION

The grading system for this course is based on successful completion of all the following tasks:

- Class Participation and Discussion 10%
- Abstracts 15%
- Oral Presentation 15%
- Mini Projects 15%
- Examinations (3) 45%
- TOTAL 100%

Grading Scale

- A+ = 98-100%
- A  = 93-97%
- A- = 90-92%
- B+ = 88-89%
- B  = 83-87%
- B- = 80-82%
- C  = 70-79%
- F  = Below 70%

Note About Student Performance:

It is expected that each student will:
- Read all assigned materials for the course.
- Attend every class session and be on time to class.
- Participate fully in all small/large group activities that reflect critical reading of the materials.
- Complete three abstracts.
- Orally present an article and link it to the chapter being presented.
- Complete three examinations.
Please Note

**Written Assignments:** All written assignments must be completed on a word processor. Assignments are to be turned in at the beginning of class on the date due. Late assignments will not be accepted without making prior arrangements with the instructor. In addition, all work submitted in this course must be your own or attributed to the proper author using the appropriate research reference format (APA).

**Out-of-Class Sessions:** One or more of our class sessions may be held out-of-class (online). This class (or classes) is to be considered a regular instructional time, and the assignments given are the equivalent of a full, in-class session. The out-of-class hours include research, use of professional websites, online discussions, readings, and other assignments. Formal online discussions will take place at: [http://blackboard.gmu.edu](http://blackboard.gmu.edu)

**Course Syllabus Subject to Change:** The course syllabus may be subject to change pending class progress in meeting objectives. If changes are made, students will be given advanced notice and ample time to adjust their schedules.

**COLLEGE OF EDUCATION AND HUMAN DEVELOPMENT STATEMENT OF EXPECTATIONS**

The Graduate School of Education (GSE) expects that all students abide by the following:

- Students are expected to exhibit professional behavior and dispositions. See gse.gmu.edu for a listing of these dispositions.

- Students must follow the guidelines of the University Honor Code. See [http://www.gmu.edu/catalog/apolicies/#TOC_H12](http://www.gmu.edu/catalog/apolicies/#TOC_H12) for the full honor code.

- Students must agree to abide by the university policy for Responsible Use of Computing. See [http://mail.gmu.edu](http://mail.gmu.edu) and click on Responsible Use of Computing at the bottom of the screen.

- Students with disabilities who seek accommodations in a course must be registered with the GMU Disability Resource Center (DRC) and inform the instructor, in writing, at the beginning of the semester. See [www.gmu.edu/student/drc](http://www.gmu.edu/student/drc) or call 703-993-2474 to access the DRC.
# THEORIES OF LEARNING AND COGNITION

**EDEP 550:001**  
**FALL 2005**

## CLASS SCHEDULE AND ASSIGNMENTS

<table>
<thead>
<tr>
<th>DATE</th>
<th>TOPICS AND ASSIGNMENTS</th>
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<tbody>
<tr>
<td>September 1, 2005</td>
<td>Course Overview and Introductory Activity</td>
</tr>
<tr>
<td>September 8, 2005</td>
<td>Chapter 1, Learning: Definitions, Perspectives, and Issues</td>
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</table>
| September 15, 2005 | **Chapter 2, Learning and the Brain**  
| September 22, 2005 | **Chapter 3, Behaviorism & Classical Conditioning**  
| September 22, 2005 | **Chapter 4, Operant Conditioning**  
September 29, 2005

Chapter 5, Applications of Operant Conditioning

Chapter 6, Effects of Aversive Stimuli

October 6, 2005

EXAMINATION 1, CHAPTERS 1-6

October 13, 2005

Chapter 7, Social Cognitive Theory

Chapter 8, Antecedents and Assumptions of Cognitivism
Chapter 9, Basic Components of Memory


Chapter 10, Long Term Memory I, Storage


Chapter 11, Long Term Memory II, The Nature of Knowledge


Chapter 12, Long Term Memory III, Retrieval, and Forgetting


**ONE (1) ABSTRACTS DUE**

**EXAMINATION 2, CHAPTERS 7-12**
Chapter 13, Metacognition, Self-Regulated Learning, and Study Strategies

Chapter 14, Transfer and Problem Solving

Chapter 15, Applications of Cognitivism II: Learning Through Interactions with Others

Chapter 16, Motivation and Affect
November 24, 2005  UNIVERSITY CLOSED, THANKSGIVING RECESS

December 1, 2005  Chapter 17, Cognitive Factors in Motivation

December 8, 2005  Chapter 18, Attributions

ONE (1) ABSTRACT DUE

December 15, 2005  FINAL EXAM