EDEP 550
Theories of Learning and Cognition
Fall 2010
Robinson Hall B124
Monday 4:30pm – 7:10pm

PROFESSOR:
Name: Dr. Jeffrey Gorrell
Office phone: (703) 993-6019
Home phone: (703) 255-3668
Cell phone: (703) 347-5077
Office location: West Hall, Room 2012
Office hours: By appointment
Email address: jgorrell@gmu.edu

COURSE DESCRIPTION
This course explores the 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
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 course is technology-enhanced using Blackboard. Students are responsible for any information posted on the course site. The Blackboard site for the class can be accessed at:
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 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
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 Affect
- Principle 10: Developmental Influences on Learning
- Principle 11: Social Influences on Learning
- Principle 12: Individual Differences on Learning
- Principle 13: Learning and Diversity
- Principle 14: Standards and Assessment

For more information please see:
American Psychological Association (1997). *Learner-centered psychological principles: A framework for school redesign and reform.* Retrieved August 24, 2005, from http://www.apa.org

COURSE MATERIALS

Required Texts

American Psychological Association (2009). *Publication manual of the American Psychological Association* (6th ed.). Washington, DC: Author. [I highly recommend buying a copy of this manual for current and future use. As an alternative, you can go to the APA web site for basics and advanced features of the manual: http://www.apastyle.org/manual/index.aspx]

Driscoll, M. P. (2005). *Psychology of learning for instruction* (3rd ed.). Boston: Allyn & Bacon. [We will cover all or almost all of the topics in this book.]

Additional Required Readings: Available through e-reserves in the library. *(These are for weeks 8 and 9).*

Week 8:
Goswami, U. (2004). Neuroscience and education. *British Journal of Educational Psychology, 74,* 1-14.

Week 9:
Immordino-Yang, M. H. & Damasio, A. (2007). We feel, therefore we learn: The relevance of affective and social neuroscience to education. Mind, Brain and Education, 1 (1), 1-10.

Jones, P. E. (1999). The embodied mind: Contrasting visions. *Mind, Culture, and Activity, 6 (4), 274-285.*

Suggested Reading: I will provide a list of readings to be used for the article abstracts, which will be handed out in class and available on-line.

Course Requirements

A. *Attendance and Participation (30 pts)*

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. This is especially important related to your work within the group to which you will belong during the semester. 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 rubric for attendance and participation in Appendix A).

Students will be placed in working groups of about 6 per group for the duration of the semester, based primarily on similarities in background, professional goals. I will help students on the first day of class determine the best ways to organize the groups, so that they can begin early in the semester.

B. *Article Abstracts (40 pts--20 pts each)*

Each student is required to prepare *two* abstracts based on the additional suggested readings. For one abstract, students *may* work in pairs and submit a single abstract on which they collaborated.

Abstracts are due on the day the reading is scheduled in the syllabus. Abstracts should be emailed to the professor by noon on the day the reading is scheduled and a hard copy should be brought to class. Complete abstract guidelines and rubric are provided in Appendix B. On the day that the students complete an abstract, they are expected to use their knowledge of the additional readings to contribute to class discussion and to make brief presentations of that article to their groups.

C. *Group Project (30 pts)*

Each group will develop a group project that will bring together various topics that the group has discussed during the course. This project can be one of several types:

1. Analysis of the group as a learning community, applying principles of situated cognition and cooperative learning.
2. Creation of a rich, useful case study of learning in context with a brief analysis of how that case study can be seen from the perspective of at least two learning theories covered in class.
3. Analysis of an "instructional event" in terms of positive and negative elements affecting the learners' ultimate learning.
4. I'm leaving open the possibility of another kind of assignment that could contribute well to the groups' learning. This may be proposed by the group or I may work it out in collaboration with the class.

Each of these choices will be discussed in class, examples will be given and grading rubrics will be given out, so that each group can make an informed choice. We will discuss the project in class after we have

covered a good portion of the materials for the course (probably around October 5) and after the groups have had time to become comfortable with how they are working.

D. Case Analysis Writing Assignment (50 pts)

Students will complete a case analysis writing assignment in which they will analyze a practical situation and apply the concepts discussed in class through Monday, October 12. The assignment will be given out on Monday, October 12 and will be due on Monday, October 26.

E. Final Synthesis Paper (50 pts)

Students will write a reflective synthesis paper, no longer than 8 pages, in which they present their philosophy of learning and teaching supported by the course content. Specifically, students should present their views of how learning occurs and the implications this has for their teaching practices (additional guidelines and scoring rubric will be provided).

If a student is not in a teaching field, an alternative application can be made. For example, students could discuss how the course content will apply to their research paradigms or current/future careers. Alternative applications for this assignment must be discussed with the professor by the middle of the semester, Monday, October 25.

Grading Scale

A+ = 196 - 200	A = 186 - 195	A- = 180 - 185
B+ = 176 – 179	B = 166 - 175	B- = 160 - 165
C = 140 - 159	F < 140	

ADDITONAL CLASS POLICIES
Paper Format
> *Papers not following this format may be automatically reduced by up to a letter grade.*
- 1 inch margins on all sides, double-spaced, 12-point Times New Roman or comparably sized font.
- Separate title page including the following: title, name, date, professor, course number.
- All papers should be proofread for spelling, grammar, and clarity errors.
- Citation and references in APA format.

Late Assignments
Assignments are due at the start of class on the assigned due date. If an assignment must be turned in late or outside of class, students may send the assignment to me as an email attachment. Since I have truly limited office hours, do not submit an assignment by leaving it at my office. I much prefer email submissions, anyway, and I will notify that I have received it if you are concerned about whether it arrived. Late assignments will be marked down by half a letter grade for each day the assignment is late.

COLLEGE OF EDUCATION AND HUMAN DEVELOPMENT STATEMENT OF EXPECTATIONS:

All students must 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 for the full honor code.
    Please note that:
    - "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."
        (from Mason Honor Code online at http://mason.gmu.edu/~montecin/plagiarism.htm)
    - Paraphrasing involves taking someone else's ideas and putting them in your own words. When you paraphrase, you need to cite the source.
    - When material is copied word for word from a source, it is a direct quotation. You must use quotation marks (or block indent the text) and cite the source.
    - Electronic tools (e.g., TurnItIn.com) may be used to detect plagiarism if necessary.
    - Plagiarism and other forms of academic misconduct are treated seriously and may result in disciplinary actions.

- Students must agree to abide by the university policy for Responsible Use of Computing. See 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 or call 703-993-2474 to access the DRC.

PROPOSED CLASS SCHEDULE

Date	Topic	Readings	Other Assignments
Mon 8/30	Course Overview Key Issues Related to Learning	Driscoll, Chapter 1	
Mon 9/06	LABOR DAY HOLIDAY		
Mon 9/13	Behaviorism and Radical Behaviorism	Driscoll, Chapter 2	
Mon 9/20	Cognitive Information Processing	Driscoll, Chapter 3	
Mon 9/27	Meaningful Learning and Schema Theory	Driscoll, Chapter 4	
Mon 10/04	Situated Cognition	Driscoll, Chapter 5	*Discussion of Group Projects*
Tue 10/12	Cognitive and Knowledge Development	Driscoll, Chapter 6	*Case Analysis Writing Assignments*
Mon 10/18	Case Analysis Writing Assignment Work Period—No class meeting		

Mon 10/25	Interactional Theories of Cognitive Development	Driscoll, Chapter 7	*Case Analysis Writing Assignment due*
Mon 11/01	Biological Bases for Learning and Memory	Driscoll, Chapter 8 Goswami, U. (2004)	
Mon 11/08	Recent Research on the Brain	Immordino-Yang, M. H. & Damasio, A. (2007); Jones, P. E. (1999)	
Mon 11/15	Motivation and Self-Regulation in Learning	Driscoll, Chapter 9	
Mon 11/22	Gagne's Theory of Instruction	Driscoll, Chapter 10	
Mon 11/29	Constructivism	Driscoll, Chapter 11	
Mon 12/06	Course wrap-up and reflections	To be Assigned, if necessary	*Group Projects due by 4:30 pm*
Mon 12/13	EXAM WEEK No class meeting		*Final Synthesis Paper due by 4:30 pm*

Appendix A
Attendance & Participation Rubric (30 points)

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 the 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.

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.

Your participation grade will be calculated as the sum of points for each criterion.

Appendix B
Article Abstract Guidelines and Rubric (20 points)

Each student is required to prepare *two* abstracts based on the additional suggested readings. For one abstract, students *may* work in pairs and submit a single abstract on which they collaborated.

Abstracts are due on the day the reading is scheduled in the syllabus. Abstracts should be emailed to the professor by noon on the day the reading is scheduled and a hard copy should be brought to class. On the day that the students complete a group or individual abstract, they are expected to use their knowledge of the additional readings to contribute to class discussion.

For EDEP 550 Article Abstract assignments, articles should be selected from the list of suggested readings or approved by me in advance.

CONTENT

Theoretical/Review Article

1. The topic
2. The purpose, thesis, or organizing construct and the scope (comprehensive or selective) of the article
3. The sources used (e. g., personal observation, published literature)
4. The conclusion(s) (include implications or applications)
5. Your critique (impressions) and discussion of implications

Empirical Article

1. The problem
2. The experimental method (methodology)
3. The findings/results
4. The conclusion(s) (include implications or applications)
5. Your critique (impression) and discussion of implications

FORMAT

The abstract should
- Include a cover page
- Be 2-4 pages (excluding cover and reference page), typed, double-spaced, and in APA format
- Include reference information on a separate sheet (APA format)

ARTICLE ABSTRACT RUBRIC

Criteria	Outstanding (4)	Competent (3)	Minimal (2)	Unsatisfactory (1)
Summary *Summarize important aspects of article*	Provides a clear and complete summary of the article including all necessary components.	Summary of the article is mostly complete but lacks some components, clarity, or understanding.	Summary of the article is somewhat incomplete and/or unclear with multiple misunderstandings.	Summary of the article is brief, incomplete, unclear, and/or incorrect.
Analysis *Analyze and critique specific aspects of article, identifying specific strengths and weaknesses (e.g., theory, methods, analysis, discussion)*	Gives a complete analysis of the article, relating specific examples to justify critique.	Analysis may be somewhat limited or includes few examples to justify critique.	Analysis is limited and/or lacks examples to justify critique.	Gives little or no analysis of study and lacks examples to justify critique.
Implications *Discuss implications for the article for research or practice (i.e., how can this work be applied, why is it useful)*	Relates article to personal situation with clear implications for practice and research.	Implications for practice and research are somewhat general, lacking personal connection, or in need of elaboration.	Implications are general, lack specific connection to practice and/or research, and/or are inappropriate.	Draws few or no implications for practice or research.
Integration of Course Work *Demonstrate knowledge and use of course content*	Shows thorough understanding of content and use of course materials and guidelines to support critique.	Shows some understanding of content and use of course readings and guidelines to support critique.	Shows limited understanding of course content and use of course readings and guidelines to support critique.	Shows no understanding of course content or use of course readings and guidelines to support critique.
APA Style *Use APA style and formatting*	Uses concise, coherent, well-organized writing with correct APA style.	Writes with some lack of clarity and/or inconsistent APA style with some errors.	Writes with a lack of clarity and coherence, many errors, or incorrect APA style.	Writes with little clarity or coherence, many errors, and/or no use of APA style.

TOTAL = _____