

**GEORGE MASON UNIVERSITY  
COLLEGE OF EDUCATION AND HUMAN DEVELOPMENT  
EDUCATIONAL PSYCHOLOGY**

**EDEP 823  
Research Project in Educational Psychology: Sequence I  
Spring 2011  
Thursday 7:20-10:00 PM  
Robinson Hall A350**

**PROFESSOR:**

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**COURSE DESCRIPTION:**

A. Prerequisites: EDEP820, EDEP821, EDEP822 (if doctoral focus is educational psychology).  
Doctoral students of other areas may take without prerequisites.

B. Focuses on the development and implementation of research studies in educational psychology. Students will acquire skills regarding developing research questions and a sound methodological approach for their study. First in two course sequence.

**NATURE OF COURSE DELIVERY:** This course consists of lectures, group and electronic discussions, in class activities, and individual/group assignments.

**LEARNER OUTCOMES:**

**This course is designed to enable students to:**

- design and conduct a study of some aspects of human learning within an educational or other relevant setting
- synthesize and apply information in the context of an actual problem
- design the basic components of a small-scale quantitative/qualitative research study, including descriptive statistics and inferential statistics
- write clearly and coherently about the conceptual framework, questions, and methods used in a research study
- deal appropriately with ethical issues in research
- develop research hypotheses that relate to research questions

- demonstrate an understanding of quantitative or qualitative research design through completion of a project
- identify threats to internal and external validity in simulated studies, and their own research design
- develop and reinforce their critical thinking, oral, and writing skills

## **PROFESSIONAL STANDARDS:**

The program goals are consistent with the following Learner-Centered Psychological Principles outlined by the American Psychological Association Presidential Task Force in Education (APA, Division 15).

- 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.*

Retrieved October 14, 2002 from <http://www.apa.org>

## **REQUIRED TEXTS:**

Creswell, J. W. (2007). Educational research: Planning, conducting, and evaluating quantitative and qualitative research. Pearson Education Inc: Upper Saddle River, NJ. 3<sup>rd</sup> Edition.

## **RECOMMENDED TEXTS:**

American Psychological Association. (2010). *Publication manual of the American*

*Psychological Association* (6<sup>th</sup> ed). Washington, DC: Author.

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

### **A. Course Requirements**

It is expected that each of you will:

1. Read all assigned materials for the course
2. Critique, present/discuss assigned readings in class \*
3. Participate in classroom activities that reflect critical reading of materials
4. Write a research proposal and present in a poster session \*
5. Attend each class session

### **B. Performance-based assessments**

Please see rubrics

### **C. Course Evaluation**

**1. Research Project -Sequence I:** Students will write a research proposal that focuses in a specific content area of interest. The paper should include the following sections: (1) Statement of the Problem; (2) Purpose of the Study; (3) Significance of the Study; (4) Review of Literature; (5) Questions and/or Hypotheses; (6) Design: Methods and Procedures; (7) Sample; (8) Measures; and (9) Data Collection. The research proposal will be submitted as a final term paper, and it will be presented in a poster session at the end of the semester following APA presentation guidelines. Research papers must adhere to the APA Publication Manual Guidelines.

**2. Class participation and attendance policy:** Because of the importance of lecture and discussion to your total learning experience, I wish to encourage you to both attend and participate in class regularly. Attendance, punctuality, preparation, and active contribution to small and large group efforts are essential. These elements of your behavior will reflect the professional attitude implied in the course goals and will account for 10% of your course grade. With reference to the grading scale described later in this syllabus, you will note that this percentage is equivalent to a full letter grade. Students who must miss a class must notify the instructor (preferably in advance) and are responsible for completing all assignments and readings for the next class. Late assignments will not be accepted unless a serious emergency arises and the instructor is notified promptly.

### **D. Grading Policy**

Research Proposal/Presentation: Sequence I	90 pts
Class Participation and Attendance	10 pts
<b>TOTAL</b>	<b>100 pts</b>

A+	98-100%	A	93-97.49%	A-	90-92.49%
B+	88-89.49%	B	83-87.49%	B-	80-82.49%
C	70-79.49%	F	below 70%		

## **COLLEGE OF EDUCATION AND HUMAN DEVELOPMENT**

### Student Expectations

- Students must adhere to the guidelines of the George Mason University Honor Code [ See <http://academicintegrity.gmu.edu/honorcode/> ].
- 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/>].
- Students must follow the university policy for Responsible Use of Computing [See <http://universitypolicy.gmu.edu/1301gen.html> ].
- 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.
- Students must follow the university policy stating that all sound emitting devices shall be turned off during class unless otherwise authorized by the instructor.
- Students are expected to exhibit professional behaviors and dispositions at all times.

### Campus Resources

- 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/> ].

•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/>].

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

## CLASS SCHEDULE

### Sequence I

DATE		TOPIC/ READING/ASSIGNMENTS DUE	SUPPLEMENTAL READING
1/27	WK. 1	Review syllabus Introduction and Overview Creswell (2002) Chapter 1	American Psychological Association (2001), Locke et. al. (1999), Wilkinson (1991)
2/3	WK. 2	Framing the Research Problem Creswell (2002) Chapters 2 & 3	Wiersma (2009), Odom et al. (2005),
2/10	WK. 3	Conducting a Literature Review Creswell(2002) Chapter 4	Locke et al. (1999), Fitzgerald (2005).
2/17	WK. 4	Reviewing and Summarizing Empirical Research Articles Creswell (2002) Chapter 10 Bring in annotated list of at least 5 empirical articles in your area of interest, bring 1 full article to discuss	Walberg, (1986), Girden, (2001)
2/24	WK. 5	Developing a Conceptual Framework *Bring list of important things to define/operationalize in your study and your first attempts Operational Definitions and Constructs	Fueyo (1997), Slavin (2003), Wahlberg (1986) Charman (2000), Cronbach & Meehl (1995)

		Creswell Ch 6 p 169-177	
3/3	WK. 6	Research Questions/Hypotheses/Formulations Creswell (2002) Chapter 5	Kerlinger (1979), Krathwohl (1988)
3/10	WK. 7	Research Design: Quantitative Approaches Creswell (2002) Chapters 11,12,13	Barlow (1984), Green et. A. (1989), Levin, O'Donnell, & Kratochwill, (2003).
3/17	WK 8	SPRING BREAK	
3/24	WK. 9	Design of Study: Qualitative and Mixed Method Approaches Creswell (2002) Chapters 14,15,17	Maxwell (2005), Bogdan & Biklen (2007)
3/31	WK. 10	Selecting a Sample Creswell (2002) Chapters 6, 7	Dewaele (2005), Kerlinger, (1979)
4/7	WK 11	AERA—NO CLASSES	
4/14	WK. 12	Selecting Measures Creswell (2002) Chapter 6,7 Mental Measures Yearbook, Health and Psychosocial Instruments, database (search for instruments relevant to your topic, and then do lit search for reviews/uses)	Cronbach & Meehl (1995) Messick (1989), Jaeger, (1997)
4/21	WK. 13	Data Collection Creswell (2002) Chapter 6,7 Procedures	Fontana & Frey, (1998) Dewaele, (2005)
4/28	WK. 14	Introduction to Human Subjects Review: Writing an IRB proposal Creswell(2002) Review Ch 6 p159- 161, Ch 7 191-192 Human Subjects Website at GMU, Download HSRB submission form	

5/5	WK. 15	Proposed Analysis of Results Creswell (2002) Ch 8,9	Heiman, (2000), Cohen, (1994)
5/12	WK. 16	Presentations	

### RUBRIC FOR RESEARCH PAPER SEQUENCE I AND II

Criteria	Distinguished	LEVEL OF PERFORMANCE			Score
		Proficient	Basic	Unsatisfactory	
Purpose & Significance of the Study Review of Literature	The student described in detail the purpose and significance of study. The student provided a complete high quality literature review which cites relevant references, cites current as well as earlier research and deals with relevant theories or theoretical frameworks	The student described in detail the purpose and significance of study. The student provided a quality literature review citing relevant research	The student described in detail the purpose of the study. The student provided a basic literature review	The student was unable to provide purpose of the study or a literature review	
Quantitative Proposals: Hypothesis	The student clearly stated a significant and testable hypothesis. The hypothesis is important enough to be researched in terms of its significance concerning what is already known	The student stated a significant and testable hypothesis.	The student stated a testable hypothesis.	The student was unable to state a hypothesis.	

	about the areas of research and/or an existing theory or theoretical framework				
Qualitative research proposals: Research Questions	The student provided a research question well- aligned with the other dimensions of the research design, a sufficient rationale for choosing a particular question, and described a process that allows for evolution of the research question	The student provided a research question well-aligned with other dimensions of the research design.	The student provided a research question somewhat aligned to the other dimensions of the research design.	The student failed to provide a research question.	
Methods: Quantitative	The student provided a feasible design which maximizes the reliability and validity of the measures of her/his variables. The design of the included design, procedures, sample measures	The student provided a feasible design which addresses the reliability and validity of the measures of her/his variables. The design of the study will include design, procedures, sample measures	The student provided a design which includes design, procedures, sample measures.	The student was unable to provide a design for the study	
Methods: Qualitative	The student provided clear and justifiable rationale for the	The student provided sufficient rationale for the	The student provided some rationale for sample	The student failed to provide a rationale for	



	selection of a study site/sample, an outline of data collection procedures that are flexible and iterative, and an account of how the process of analysis will be approached.	selection of the study site/sample, outlined data collection procedures and gave an account of how the process of analysis will be approached.	selection, data collection and some outline of procedures and analysis.	sample selection, data collection and analysis.	
Data Collection and Results	The student used appropriate statistical techniques, descriptive, inferential to analyze the data (quantitative research). OR the student used appropriate coding and interpretive procedures (qualitative research).	The student used appropriate statistical techniques or qualitative analysis techniques.	The student used appropriate statistical techniques or qualitative analysis techniques.	The student was unable to use appropriate statistical techniques or qualitative analysis techniques.	
Discussion Section	The student provided a thorough discussion which includes a discussion of the results, limitation and future research	The student provided discussion which includes a discussion of the results, limitation and future research	The student provided a basic discussion of the results	The student was unable to provide a thorough or discussion	
Mechanics of Paper	The student provided a well written research papers which adhered to the	The student provided an average written research papers which adhered	The student provided a research paper which missed several vital	The student was unable to provide a final draft of the research paper	

	APA Publication Manual Guidelines.	to the APA Publication Manual Guidelines.	elements of a research paper outlined in the APA Publication Manual Guidelines.		
Poster Session	The student provided an excellent poster presentation that adhered to the APA Publication Manual Guidelines.	The student provided a poster presentation that adhered to the APA Publication Manual Guidelines.	The student provided a poster presentation that was missing several key elements	The student was unable to construct a poster presentation	

Reading List

American Psychological Association. (2010). *Publication manual of the American Psychological Association* (6<sup>th</sup> ed). Washington, DC: Author.

Barlow, D.H., & Hersen, M. (1984). *Single case experimental designs: Strategies for studying behavior change*. New York: Pergamon.

Bogdan, R. & Biklen, S. (2007). *Qualitative research for education: An introduction to theory and methods* (5th ed.). Needham Heights, MA: Allyn & Bacon.

Charman, K. (2000). Grounded theory: Objective and constructivist methods. In N. K. Denzin & Y.S. Lincoln (Eds.), *Handbook of qualitative research* (2<sup>nd</sup> ed., pp.509-535). Thousand Oaks, CA: Sage.

- Cronbach, L.J., & Meehl, P.E. (1995). Construct validity in psychological tests. *Psychological Bulletin*, 52(4), 281-302.
- Cohen, J. (1994). The earth is round ( $p < .05$ ). *American Psychologist*, 49, 997-1004.
- Dewaele, J. (2005). Questionnaires in second language research, construction, administration and processing. *International Journal of Bilingual Education & Bilingualism*, 8(1), 98-99.
- Fitzgerald, S. M., Rumrill, Jr., P. D. (2005). Quantitative alternatives to narrative reviews for understanding existing research literature. *Work: Journal of Prevention, Assessment & Rehabilitation*, 24(3), 317-323.
- Fontana, A., & Frey, J.H. (1998). Interviewing: The art of science. In N.K. Denzin & Y.S. Lincoln (Eds.), *Collecting and Interpreting qualitative research* (pp.47-78). Thousand Oaks, CA: Sage Publications, Inc.
- Fueyo, V., & Koorland, M.A. (1997). Teacher as researcher: A synonym for professionalism. *Journal of Teacher Education*, 48(5), 336-344.
- Girden, E.R. (2001). *Evaluating research articles from start to finish* (2<sup>nd</sup> ed). Thousand Oaks, CA: Sage.
- Green, J.C., Caracelli, V.J., & Graham, W.F. (1989). Toward a conceptual framework for mixed-method evaluation designs. *Educational Evaluation and Policy Analysis*, 11, 255-274.
- Heiman, G.W. (2000). *Basic statistics for the behavioral sciences*. Boston: Houghton Mifflin.
- Jaeger, R. M. (1997). *Survey research methods in education*. In R. M. Jaeger (Ed.), *Complementary methods for research in education* (2nd ed., pp. 449-476). Washington, DC: American Educational Research Association.
- Kerlinger, F. N. (1979). *Behavioral research: A conceptual approach*. New York: Holt, Rinehart & Winston.

- Krathwohl, D. R. (1988). *How to prepare a research proposal: Guidelines for funding and Dissertations in the social and behavioral sciences*. Syracuse, NY: Syracuse University Press.
- Levin, J.R., O'Donnell, A.M., & Kratochwill, T.R. (2003). Educational/psychological intervention research. In W.M. Reynolds & G.E. Miller (Eds.), *Handbook of psychology* (pp. 557-581). Hoboken, NJ: Wiley.
- Locke, L.F., Spirduso, W.W., & Silverman, J.J. (1999). *Proposals that work: A guide for planning dissertations and grant proposals* (4<sup>th</sup> ed.). Thousand Oaks, CA: Sage Publications, Inc.
- Maxwell, J. A. (2005). *Qualitative research design: An interactive approach* (2<sup>nd</sup> ed). Thousand Oaks, CA: Sage Publications.
- Messick, S. (1989). Validity. In R.L. Linn (Ed.), *Educational measurement*. (3<sup>rd</sup> ed., pp.13-103) Washington, DC: American Council on Education and the National Council on Measurement in Education.
- Odom, S. L. Brantlinger, E., Gersten, R. (2005). Research in special education: Scientific methods and evidence-based practices. *Exceptional Children*, 71(2), 137-148.
- Slavin, R.E. (2003). A reader's guide to scientifically based research. *Educational Leadership*, 60(5), 12-16.
- Walberg, H.J. (1986). Synthesis of research on teaching. In M. Wittrock (Ed.). *Handbook of research on teaching* (3<sup>rd</sup> ed., pp.214-229). New York: Macmillan.
- Wiersma, W. & Jurs, S. G. (2009). *Research methods in education: An introduction* (9<sup>th</sup> ed.) Boston: Allyn and Bacon.
- Wilkinson, A.M. (1991). *The scientist's handbook for writing papers and dissertations*.

Englewood Cliffs, NJ: Prentice Hall.