

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

**SYLLABUS**

***EDRS 810: Problems and Methods in Educational Research***  
**Spring, 2005**

*Instructor:* Stephen White, Ph.D.

*Meeting:* 125 Robinson A, Tuesdays 7:20 - 10:00 pm

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*Office Hours:* M 3-4:00 PM

T 6-7:00 PM

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Other hours may be arranged by appointment.

**Course Description**

This is an advanced course in the interpretation and application of education research methods. Emphasizes comparison of alternative philosophies of research, ways of formulating questions/hypotheses, research plans, and analysis procedures. Students evaluate existing studies and investigate a range of research approaches.

*Prerequisites:* Admission to the Ph.D. program or permission of instructor.

**Course Objectives**

Upon successful completion of the course, students should:

- be able to understand what research is, and how it differs from other intellectual and practical activities in education;
- be able to understand the major approaches to educational research, and the implications of the differences between these for doing and evaluating research in education;
- be able to find, understand, evaluate, and apply published research that is relevant to their field;
- be able to design the basic components of small-scale research studies, both quantitative and qualitative, including
  - identifying a research problem to study
  - formulating the purposes of the study
  - developing a conceptual framework for the study
  - generating appropriate research questions
  - planning relevant and feasible methods of sampling, data collection, and analysis
  - anticipating plausible validity threats, and thinking of ways to deal with these
  - dealing appropriately with ethical issues in the research

- be able to write clearly and coherently about the conceptual framework, questions, and methods used in a research study;
- be able to use the writing style described in the Fifth Edition of the *Publication Manual of the American Psychological Association* (APA) for writing term and research papers;
- be able to reflect on their actions and choices and use that reflection to inform practice;
- be able to present written research results clearly and coherently.

### ***GSE Syllabus Statements 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 <http://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> 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.

### **Course Methodology**

This course consists of lectures, large group and online formats, in class and individual or group activities, and individual assignments. Students will also be expected to access Blackboard to download agendas and other pertinent course documents. Blackboard can be accessed by going to <http://blackboard.gmu.edu>.

### **Required Text**

Creswell, J.W. (2002). *Educational Research: Planning, conducting, and evaluating quantitative and qualitative research*. Upper Saddle River, NJ: Pearson Education.

This text has a Companion Website that will be employed in this class:

<http://www.prenhall.com/creswell>

### **Recommended Text**

American Psychological Association. (2001). *Publication manual of the American Psychological Association* (5th ed.). Washington, DC: Author.

**Course Requirements:** It is expected that each of you will:

- (1) Read all assigned materials for the course.
- (2) Participate in classroom activities that reflect critical reading of materials.
- (3) Complete three in class assignments and two homework assignments.\*
- (4) Complete midterm examination.\*
- (5) Complete three article critiques\*
- (6) Write and submit research proposal.\*
- (7) Attend each class session.

\*Late assignments will not be accepted by the instructor. If an emergency occurs please notify the instructor in advance.

### ***Detailed Course Requirements***

**1. In Class/Homework Assignments:** Students will be asked to work individually or in groups on 5 in class/homework homework assignments throughout the semester. These assignments are listed on the class schedule, although they may be amended during class.

**2. Mid-term examination:** Students will be given a written, take-home mid-term examination as identified on class schedule. The mid-term examination will consist of 6-8 short answer questions (approximately 1-2 paragraphs).

**3. Article Critiques of Quantitative and Qualitative Methodologies:** This course requires students to write critiques of three research articles. The articles to be critiqued are indicated on the course schedule. The critiques should include the following parts: purpose, methods, results, and critical comments as well as your reflections about the article (a handout with specific instructions will be distributed in class). In addition, students will be assigned in groups to write a critique on their peers' draft of the proposal assignment.

**4. Research Proposal:** This course requires students to write a research proposal in the area of the student's choosing (10-15 pages, not including title page and references). It should employ APA format (see sample paper on pp 306-320 of the APA manual) and contain the following sections:

1. Introduction (2-3 pages)
  - General statement of problem
  - Background of the problem
  - Significance of the problem
  - Problem (specific)
  - Hypotheses and or research questions
2. Literature review (previous research) (4-6 pages)
3. Method (4-6 pages)

Participants and setting

Research design

Data sources; dependent variables; instrumentation (where relevant)

Procedures (proposed data collection and analysis)

Anticipated results (where relevant)

Limitations

Importance

#### 4. References

**5. 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.

#### *Course Evaluation*

#### **CRITERIA FOR HOMEWORK ASSIGNMENTS**

**Adequate assignment (2 point):** Assignment is thorough, thoughtful, correctly done, and submitted on time.

**Marginal assignment (1 point):** Assignment is carelessly prepared, not thoughtful, or incomplete.

**Inadequate assignment (0 points):** Assignment has little or no value, or is not submitted on time.

#### **ARTICLE CRITIQUES**

A draft rubric for the article critiques will be discussed in class and the final rubric will be shared with students no later than class session 9.

#### **MID-TERM EXAMINATION**

The mid-term and exam will contain 6 to 8 items, each requiring 1-2 paragraph response. Item scoring criteria will include :

**Exemplary response:** Provides direct and thorough response to question, defines relevant terms, provides specific examples or instances of the concepts being discussed. Answer is directly reflective of lecture, readings, activities, or assignments, or other material of direct relevance to class.

**Adequate response:** Provides direct and relevant response to question, provides accurate information directly relevant to class readings, notes, or activities. May provide less information, less elaboration, or a less thoughtful overall response than an exemplary response:

**Marginal response:** Provides some relevant information, but does not demonstrate overall a clear or complete understanding of the relevant concepts:

**Inadequate response:** Weak response that does not appear to reflect course content or activities. May include inaccurate information:

## PROPOSAL ASSIGNMENT

A draft rubric for the proposal assignment will be discussed in class and the final rubric will be shared with students no later than class session 10. The rubric will include the following criteria: appropriate topic, thorough review of previous research, described implementation procedures, careful measurement and evaluation of results, appropriate discussion of implications of findings, mechanical or stylistic errors and appropriate use of APA format.

## RUBRIC FOR PARTICIPATION AND ATTENDANCE

		<b>LEVEL OF PERFORMANCE</b>		
<b>ELEMENT</b>	<b>Distinguished (9-10 pts.)</b>	<b>Proficient (8 pts.)</b>	<b>Basic (7 pts.)</b>	<b>Unsatisfactory (6 or less pts.)</b>
<b>Attendance &amp; Participation</b>	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.	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.	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.	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.

**Grading Policy**

Group or Homework Assignments	2 pts each/10 pts
Article Critiques	20 pts
Midterm/Final	20 pts
Proposal	40 pts
Class Participation and Attendance	10 Pts
<b>TOTAL</b>	<b>100 pts</b>

**Letter grades will be assigned as follows:**

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%		

### *Tentative Course Organization and Schedule*

This schedule may be changed at the discretion of the professor or as needs of the students dictate.

DATE	TOPIC	ASSIGNED READING	WORK DUE
1. 1/25	Review syllabus- Introduction to the Field of Educational Research		
2. 2/1	Overview of Educational Research	Chapters 1 and 2	Homework: See description on following page. Use AERJ or JEP if possible.
3. 2/8	Identifying Research Problems; Reviewing the Literature	Chapters 3 and 4	Homework: See description on following page
4. 2/15	Specifying a Purpose; Research Questions	Chapter 5	Understanding concepts and Evaluating Research Studies, pp. 142-143; #1-3 (In Class Activity).
5. 2/22	Collecting Quantitative Data	Chapter 6	Bring a journal article to class for In Class Activity: See description on following page.
6. 3/1	Analyzing and Interpreting Quantitative Data	Chapter 7	
7. 3/8	Collecting Qualitative Data	Chapter 8	Mid-Term Exam
8. 3/15	GMU Spring Break		

9. 3/22	Analyzing and Interpreting Qualitative Data; Reporting and Evaluating Research	Chapters 9 and 10	Bring a journal article to class for In Class Activity
10. 3/29	Experimental Designs	Chapter 11	Deadline for Quantitative Article critique of Schelske & Deno (1994) Proposal Paper -- Bring Outline of Proposal Paper To Class
11. 4/5	Correlational Designs	Chapter 12	Work on Proposal Paper -- Bring Example Sections of Proposal Paper To Class
12. 4/12	AERA – library work on Proposal Assignment		
13. 4/19	Survey Designs	Chapter 13	Proposal Paper -- Bring a Section draft of Proposal Paper To Class
14. 4/26	Grounded Theory and Ethnographic Designs	Chapter 14 and 15	Deadline for Qualitative Article Critique of either Feen-Calligan (1999) or Finders (1996). <b>Proposal papers Due</b>
15. 5/3	Mixed Methods Designs	Chapters 17	In Class Activities Deadline for Mixed Methods Article Critique of Way et al. (1994). <b>Final Deadline for Proposal papers.</b>
Finals Week 5/10			<b>Proposal Paper Sharing</b>

### **Homework/In Class Activity Assignments**

**For Class 2.** Choose a published journal article from the library that is of interest to you. Find the research problem, the literature review, the purpose and/or the research questions, the data collection, the data analysis, and the interpretation in the study. Copy the article and label the six key components of the research process in the margins of the article.

**For Class 3.** Read an educational research study and locate the sentence or sentences that the author uses to convey the research problem. Identify the elements of the “Statement of the Problem.” Mark the passages where the author identified a topic, stated the issue, justified the problem, commented about deficiencies and explained the importance of addressing these deficiencies for specific audiences. Also, discuss any elements that are left out.

**For Class 5.** Identify the steps of data collection taken by an author in a published study. Locate a study and find the method or procedure discussion. Write next to the place in the article where the steps in data collection are located.