

**Course Title and Number: Educational Research, EDRS 590**  
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**Semester: Spring 2005**

“The most important questions of life are, for the most part, really only problems of probability.”  
--Pierre Simon De Laplace

### **Course Overview and/or Rationale**

This course is designed to teach students the value of being consumers of research and the ability to develop skills to engage in their own research as leaders in their profession.

### **Relevant Professional Standards**

#### NCATE Standards

Professional and Pedagogical Knowledge and Skills for Teacher Candidates (Initial and Continuing Preparation of Teachers)

Candidates reflect a thorough understanding of professional and pedagogical knowledge and skills delineated in professional, state, and institutional standards, as shown in their development of meaningful learning experiences to facilitate student learning for all students. They reflect on their practice and make necessary adjustments to enhance student learning. They know how students learn and how to make ideas accessible to them. They consider school, family, and community contexts in connecting concepts to students' prior experience, and applying the ideas to real-world problems

#### Professional Knowledge and Skills for Other School Personnel

Candidates have an adequate understanding of the professional knowledge expected in their fields and delineated in professional, state, and institutional standards. They know their students, families, and communities; use current research to inform their practices; use technology in their practices; and support student learning through their professional services.

Candidates have an in-depth understanding of professional knowledge in their fields as delineated in professional, state, and institutional standards. They collect and analyze data related to their work, reflect on their practice, and use research and technology to support and improve student learning.

### **University Policies**

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.

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](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.

Approved March 2004

## **Course Policy**

For the most part, all of your work will be available and visible to others in the course. I will not give information about your grades or any comments about your ratings to others, but in the spirit of cooperation, a community of learning, and effective research methodology, we will all see each others' products. This includes your weekly assignments and your research papers. Our work should be available for public scrutiny, evaluation, and comment. We can also learn a great deal from each other this way. This is part of the peer review process.

All research that is published is criticized. If you have critical comments or praise that you do not wish to share online or in a discussion forum, direct it privately to the person. However, I may make comments, critical, constructive, complimentary, and less than commendatory about your work that will be available for all students in the course. This is not different than what would happen in a conventional classroom, it is part of the learning process. As teachers, you know we all learn from others and from our own mistakes.

Unless you have a valid medical excuse or some extraordinary circumstance, late work will not be recorded. You will still be expected to submit the late work, but there will be no points awarded for it.

## **Textbook**

Charles, C.M. & Mertler, C.A. (2002). Introduction To Educational Research, 4th Edition.

Boston: Allyn and Bacon.

or

Charles, C.M. & Mertler, C.A. (2005). Introduction To Educational Research, 5th Edition. Boston: Allyn and Bacon.

## **Related Materials**

For statistical operations you may use Statistical Package for the Social Sciences (SPSS), Excel, online applications, a calculator, and the [Smith](#) package that is free to download.

## **Bibliography**

### Relevant Journals

Active Learning  
Adult Learning  
ALN [Asynchronous Learning Networks] Magazine  
Australian Educational Researcher  
Australasian Journal of Educational Technology  
Broadcast: Journal of the Scottish Further Education Unit  
Community Update  
Contemporary Issues in Early Childhood  
Contemporary Issues in Technology and Teacher Education  
Continuing Professional Development Journal  
Current Issues in Education  
Current Issues in Comparative Education  
Early Childhood News: The Journal of Professional Development  
Education and Aging  
Education International  
Education Policy Analysis Archives  
Education Review: A Journal of Book Reviews  
Education Statistics Quarterly  
Education Today: UNESCO Education News  
Educational Action Research  
Educational Innovation and Information  
Educational Leadership  
Educational Researcher  
Educational Technology Review  
Educational Technology & Society  
Educational Theory  
ERIC Review  
ERIC Elementary and Early Childhood Education Newsletter  
European Educational Research Journal  
European Educational Researcher

European Journal for Open and Distance Learning  
Evaluation Comment  
Hands On! (Technical and Educational Research Center)  
Harvard Education Letter Research Online  
IMHE-Info [Institutional Management of Higher Education  
Innovation in Education  
Insight (National Centre for Vocational Education Research, Australia)  
Interactive Multimedia Electronic Journal of Computer-Enhanced Learning  
International Electronic Journal for Leadership in Learning  
International Journal of Artificial Intelligence in Education  
International Journal of Electrical Engineering Education  
International Review of Research in Open and Distance Learning  
International Studies in Sociology of Education  
Issues in Educational Research  
Journal of Asynchronous Learning Networks  
Journal of In-service Education  
Journal of Industrial Teacher Education  
Journal of Information Technology and Teacher Education  
Journal of Interactive Media in Education  
Journal of Maltese Education Research  
Journal of Research for Educational Leaders  
Journal of Statistics Education  
Journal of Technology Education  
Journal of Vocational Education and Training  
KAIROS: A Journal for Teachers of Writing in Webbed Environments  
Learning Technology  
Networks: An On-line Journal for Teacher Research  
Newsletter for the International Textbook Research Network  
Observations  
Online Chronicle of Distance Education and Communication  
Pedagogy, Culture and Society  
Phi Delta Kappa  
Prospects: Quarterly Review of Comparative Education  
Research in Education [SCRE]  
Research in Post-Compulsory Education  
Research Intelligence [British Educational Research Association]  
School Library Media Research  
Sociological Research Online  
Teacher Development  
Teachers College Record  
Teaching Scotland  
Teaching Today for Tomorrow  
Technological Horizons in Education Journal  
Technology Source  
The Future of Children  
Thinkers on Education

Times Educational Supplement  
Ultibase Journal

Cox, N. (1999). Gender, attitude, group composition, and student achievement in computer-based cooperative learning, Virginia Society for Technology in Education, 13(3).

Keating, J, Diaz-Greenberg, R., Baldwin, M., & Thousand, J. (1998). A collaborative action research model for teacher preparation programs, Journal of Teacher Education. 49(5).

McGregor, M, & Schnorr, D. (April 28, 2000). Predicting Standardized Test Scores: Are Multiple Measures of Assessment the Answer? Paper presentation on the use of multiple methods of assessment for reading comprehension. International Conference for Teacher Researchers, New Orleans.

Painter, D. (Spring, 1999). What does teacher-research influence? Findings often influence curriculum and instruction, planning, evaluation and staff development initiatives, Virginia Society for Technology in Education.

Schnorr, D. & Painter, D. (1999). Partnering the university field experience research model with action research, Resources in Education ERIC #ED 428058.

Schnorr, D., English, M., Armani, D., & McCabe, J. (1999). The relationship between secondary education teacher technology training and teacher technology usage, Virginia Society for Technology in Education, 13(2).

Schnorr, D.L, & Painter, D. (April 24-25, 1999). The Field Experience Research/Service Model. The International Conference for Teacher Researchers in Quebec.

Schnorr, D.L., & Painter, D. (February 24-27, 1999). Paper presentation at the Annual Meeting of the American Association of Colleges For Teacher Education.

#### Comprehensive Links for Resources

<http://www.emtech.net/actionresearch.htm>

<http://www.emtech.net/statistics.htm>

#### **Course Goals/Objectives**

Upon completion of course, students will be able to:

Knowledge:

- describe and determine the appropriateness of basic types of research methods
- articulate research terminology including, quantitative and qualitative research terminology
- recognize computer applications to compute parametric and non-parametric

statistics and qualitative data analysis software

**Skills:**

- design a research study
- conduct a research study
- write a research paper
- use computer applications to compute parametric and non-parametric statistics and qualitative data analysis software
- use the internet and apply computer programs for literature reviews, data management and analysis

**Dispositions:**

- recognize the value of educational research for assessing educational processes and learner outcomes
- understand relevant ethical and legal considerations in conducting, analyzing, and interpreting research
- recognize the cultural bias in some research instruments and the subsequent cultural bias in the results of such research studies
- Appreciate multiple perspectives, learning styles, and multiple intelligences during the group process while developing and implementing the research study

**Course Evaluation and Assignments**

There are 776 possible points for this course. Here is the breakdown:

<b>Dates</b>	
Week One - First class	January 27
Week Two	February 3
Week Three	February 10
Week Four	February 17
Week Five	February 24
Week Six	March 3
Week Seven	March 10
Spring Break	March 17
Week Eight	March 24
Week Nine - Midterm Exam	March 31
Week Ten	April 7
Week Eleven	April 14
Week Twelve	April 21

Week Fourteen	May 5
Week Fifteen - Final Exam	May 12

**Last day to drop with no tuition penalty - February 8**  
**Last day to drop with 33% tuition penalty - February 15**  
**Last day to drop with no rebate - February 25**

<b>Course Points</b>					
Article Reviews	50				Due Week Seven
Midterm Examination	50				Week Nine
Research Paper Outline	50				Week Ten
Rough Draft of Literature Review	15				Week Twelve
Final Examination	50				May 12
Final Research Paper*	200				May 12
Course Participation	50				
SubTotal	(465)				
Topics/Activities	Book Points		Activities	SubTotal	
Week One	10		x	10	Due End of Week
Week Two	10		10	20	Due End of Week
Week Three	10		10	20	Due End of Week
Week Four	10		10	20	Due End of Week
Week Five	10		14	24	Due End of Week
Week Six	10		10	20	Due End of Week
Week Seven	10		10	20	Due End of Week
Week Eight	10		5	15	Due End of Week
Week Nine	x		x	x	Due End of Week
Week Ten	10		10	20	Due End of Week
Week Eleven	10		15	25	Due End of Week
Week Twelve	10		10	20	Due End of Week
Week Thirteen	40		12	52	Due End of Week

Week Fourteen	x	20	20	Due End of Week
Week Fifteen	x	x	x	
SubTotal	(120)	(166)	(286)	
Bonus Points			(25)	
Grand Total			776	

\* Required to pass the course, regardless of other points.

The discussion forum points are determined more subjectively, as are the bonus points.

A = 90% and above

B = 80-89%

C = 70-79%

F = 69% or below

Plus and minus grades are determined as above or below the halfway points between percentage breaks; for example - 81 to 84 is a minus, 86 to 88 is a plus.

### Materials in Course Documents

- Analysis Form (For Analyzing Articles)
- Matrix for Synthesizing Articles
- Research Paper Outline
- Rubric for Research Paper
- Article Review Form
- Literature Review Rubric
- APA Style crib sheet
- Glossary
- Link to free statistics software by Smith
- Selected statistical tables
- Permission letter template
- Examples of former students' research papers
- Educational Research Resources

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### Course Organization

While there are specific assignments for each week of the course and for the entire course, there will be periodic announcements and related work that may be assigned during the course of the semester. Please be sure to check the announcements.

From the first week, you need to start planning for your final product, which is the capstone of the course. This is a completed research project. You may want to skip around to get a



feel for the whole course and not let too much time slip by before you get too far into the semester. For the research project you need to (a) select a topic, (b) begin reading articles related to the topic and doing reviews, (c) collect your data, and (d) prepare the final product before the end of the semester. The process involves these major steps and:

### **Article reviews**

You must have a minimum of 10 articles that you will review for your research paper. There are two tools that must be used for formatting and producing reviews of research articles. These are:

- **An Analysis Form**
- **A Matrix for Synthesizing Articles**

All students will be required to find at least 10 article reviews. Each article must be related to your chosen research topic. All students are required to use the form for Analysis (see Course Documents) to analyze each article. You must use a word processor to complete your article review forms and attach each review in the appropriate discussion board. By utilizing these forms for analysis of articles, you will be better prepared to synthesize the elements to each article in the literature review section of your research paper.

Criteria: Student collected all 10 articles and analyzed them in-depth as evidenced by the Analysis Form for student typed responses using a word processor and the format provided and attached by the appropriate due dates. Student utilized third person in their reactions and analyzed the article using APA format for referencing and citations.

Please note that the **writing style for your articles and your final project must conform to the standards of the American Psychological Association (APA) 5th Edition.**

I do not recommend that you purchase a copy of the manual, unless you really want it, because you can learn enough from imitation and online sources to learn APA style. There is a quick reference for APA in the Course Documents.

Here is a good online source: [A Guide for Writing Research Papers based on Styles Recommended by The American Psychological Association](#)

### **A Research Paper Outline**

The outline is just that, the major headings and subheadings you have developed for your research paper, due in the ninth week. See the template for the Research Paper Outline in Course Documents..

### **Rough Draft of Literature Review**

The rough draft is due in the eleventh week of the course. This is essentially chapter 2 of your paper and will not have to be edited or changed after it is finished. This will be the

result of your reading and use of the articles you have reviewed. While there is a minimum of ten, you are certainly welcome to have more. The rubric for the literature review is in the Course Documents section.

### **Permission Letter**

Depending upon the kind of research you do, you will need some kind of permission letter to protect your subjects and yourself. If you use students in your own classroom or school, or subjects in another setting, you will have to inform them, their parents, their guardians, or others about what you intend to do and get their permission. Find a template in the Course Documents section.

### **Midterm Examination**

Week nine: You will receive a midterm examination worth 50 points. It will cover all the readings and lectures up to the ninth week. If you keep up with your readings and activities, you will have no trouble with the examination. The examination will consist of some mixture of short essay and objective questions.

### **Final Examination**

You will receive a final examination worth 50 points. It will cover all the readings and lectures from the tenth week. If you keep up with your readings and activities, you will have no trouble with the examination. The examination will consist of some mixture of short essay and objective questions.

### **Course Participation**

- Please respond to any inquiries and react to e-mail promptly,.
- **Discussion Forum:** Active participation in the weekly forum is worth 50 points, which will be awarded by analysis of all contributions made by all participants. Useful, pertinent communication on topics is expected.

### **Final Research Paper**

The final paper will be worth 200 points, or approximately 25% of your grade. However, you must submit a research paper in order to complete the course. That is to say, if you do everything else in the course and get full points, you cannot pass the course unless you submit the final paper. It will be graded using the a research rubric, found in Course Documents.

Be sure to use the Research Paper Outline in Course Documents. It will make your task of writing much easier.

### **Bonus Points**

An award of up to 25 points can be made by the professor for students who maintain frequent and useful e-mail contact. E-mail should be related to the topics and to personal matters beyond the course content. In other words, just sending in your assignments is adequate, but more contact is desirable and will be rewarded.

### **Topics/Activities**

For your convenience, each week has the associated readings and assignments at the beginning of each topic. Remember that the research paper; article reviews, and ancillary activities that may be assigned with announcements will not be mentioned in the weekly assignments.

For each weekly assignment, the rubric for scoring these activities is as follows:

Each aspect of the activity was addressed accurately.

1 2 3 4 5

Concepts are accurately identified and clearly understood.

1 2 3 4 5

The information addressed the defined problem appropriately.

1 2 3 4 5

The end product was sufficient and comprehensive.

1 2 3 4 5

The product conformed to proper form and correct grammar and presentation, and APA style, if required.

1 2 3 4 5

Total Rating Points Possible: 25 rating points

Rating points are used as formative assessment. A product is worth whatever value is associated with it, if you meet the rating point minimum of 15 points.