Columbus State University
College of Education
Department of Counseling, Educational Leadership, and Professional Studies
Ed.S. Degree
EDUF 7116 Research
COURSE SYLLABUS

COE Mission: “To achieve excellence by guiding individuals as they become professionals”

College of Education Mission Statement
The mission of the College of Education is congruent with and complements that of Columbus State University. The College of Education has adopted the guiding principle, Creating Opportunities for Excellence, to support its mission...to achieve excellence by guiding individuals as they develop the proficiency, expertise, and leadership consistent with their professional roles as teachers, counselors, and leaders. By creating opportunities for excellence, the College of Education prepares highly qualified teachers, counselors, and leaders who promote high levels of learning for all P-12 students by demonstrating excellence in teaching, scholarship, and professionalism. Teachers, counselors, and leaders continually acquire, integrate, refine, and model these qualities as they develop proficiency, expertise, and leadership. Ultimately, the professional educator believes in the transforming role of education in human lives and strives to improve the learning of all students. The College of Education also prepares highly qualified professionals in exercise science and community counseling. COE faculty guide individuals in this developmental process.

The visual model represents the key features of the Conceptual Framework for the programs in teacher education, educational leadership, and school counseling. The circle represents the continual process of acquiring, integrating, refining, and modeling excellence in teaching, scholarship, and professionalism. The arrows represent the interdependence of these qualities. The result of our efforts to achieve excellence in teaching, scholarship, and professionalism will be improved student learning at the P-12 level and the university level.
Teaching, scholarship, and professionalism encompass the highest standards represented in the ten (10) principles outlined by the Interstate New Teacher Assessment and Support Consortium (INTASC) and the five (5) core assumptions of accomplished teaching of the National Board of Professional Teaching Standards (NBPTS). The Department of Teacher Education has adopted these principles and assumptions, which are listed below, as standards for beginning and advanced teachers. The Council for Accreditation of Counseling and Related Educational Programs (CACREP) standard’s guide the counseling program. See individual websites for detailed description of principles and standards.
Course Information

<table>
<thead>
<tr>
<th>Course:</th>
<th>EDUF 7116. Applied Educational Research:</th>
<th>Semester:</th>
<th>(3-0-3) hours credit Web enhanced</th>
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<tr>
<td>Assessment of Students/School</td>
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<td>Time:</td>
<td>6:00-8:45. We will use the 2 hours and 45 minutes each meeting</td>
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<tr>
<td>Instructor:</td>
<td>Donna Pascoe PhD</td>
<td>Class:</td>
<td>Spring 2010: Wednesday 12-17 to 5-03</td>
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<tr>
<td>Office:</td>
<td>Jordon Hall 140</td>
<td>Location:</td>
<td>Jordon Hall 209</td>
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<tr>
<td>Phone:</td>
<td>(706) 565-7818</td>
<td>Office Hours:</td>
<td>By Appointment</td>
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<tr>
<td>e-mail:</td>
<td><a href="mailto:pascoe_donna@colstate.edu">pascoe_donna@colstate.edu</a></td>
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Prerequisite: Acceptance into the Specialist Degree Program

Office Hours of Departmental Staff: Monday – Friday, 8:00 a.m. – 5:00 p.m. Jordan Hall 103

Office of COE Graduate Studies:  Dr. Tom Hackett, COE Graduate Coordinator
Mrs. Patty Jamieson, Department Secretary
Jordan Hall 103
706-568-2222  FAX 706 568-5088

I. Course Description

Course Goals:
This course is designed to build upon the master’s level educational research course. Advanced applications of qualitative, quantitative, and mixed-methods research with consideration of historical, descriptive, correlational, causal-comparative, and experimental studies. Emphasis is on data collection and analysis to assess and monitor student achievement. By the end of the semester students will be able to perform in the following ways as stated in the course objectives. (NBPTS #s 3, 4: INTASC #s 8, 9: ISLLC #’s 1, 3, 6).

Course Objectives:

1. Describe the role of educational research in educational improvement.
2. Identify ethical and legal considerations involved in conducting and reporting research
3. Demonstrate effective use of library and its resources as part of the research process.
4. Demonstrate basic skills for retrieval of articles using the ERIC system.
5. Develop working knowledge of refereed research journals in area of interest.
6. Develop reflection skills and knowledge for making data driven decisions.
7. Identify the different research designs used in educational research.
8. Define research terms, concepts, and procedures commonly used in qualitative, quantitative, and mixed methods approaches.
9. Identify the criteria for selection of a research design (quantitative, qualitative, or mixed methods strategy).
10. Identify research and statistical terms and concepts when reading various types of educational research.
11. Identify appropriate statistical procedures and tests to use for different hypotheses.
12. Understand the issue of statistical significance testing.
13. Identify and describe the major threats to internal validity.
14. Identify and describe the major threats to external validity.
15. Define the difference between Type I and Type II statistical error.
16. Define the independent variables, dependent variables, and extraneous variable.
17. Describe the importance of reliability and validity to research.
18. Describe the major controls used for extraneous variables.
19. Calculate basic statistical operations related to quantitative research.
20. Demonstrate use of SPSS for calculation of descriptive and inferential statistics.
21. Interpret meanings of statistical information found in articles.
22. Demonstrate writing skill using the American Psychological Association style format. (6th edition)
23. Critique a research articles using knowledge of research methods.
24. Write an applied research proposal.

II. Course Requirements:

Textbook:
Title: Educational Research: Quantitative, Qualitative, and Mixed Approaches
Authors: Burke Johnson and Larry Christensen
Publisher: Sage Publication

HIGHLY RECOMMENDED
Title: Publication Manual of the American Psychological Association (6th edition)
Author: American Psychological Association (Second Printing Only)
www.apastyle.org

All assignments must be written according to APA style. NOTE: 10 points will be deducted from assignments that do not follow APA style (5th or 6th edition). Please read the sections on referencing and plagiarism.

Article Critiques
Each week designated students will be responsible for orally presenting a research article in their area of interest. Developing the ability to discuss and critique articles will encourage individual scholarly development. Critique guidelines will be provided (text, 83-85). The oral and written critiques are worth a total of 15 points. Pay close attention to the data evaluation techniques. You may need to use additional sources to interpret the statistics. Refereed journals are required for articles critiqued. Please provide the class with the article at least 1 week before the discussion. You are required to critique 1 quantitative article, 1 qualitative article, or 1 mixed methods article.
Methodology Discussions
Students will participate in a discussion each week covering a preassigned research method. Students are encouraged to be creative, yet thorough, in the presentation of the methodology. You should address the following questions regarding the research method.
When is the method used? How is it used and what types of questions will it answer? What type of data collection is used? What type data analysis is most appropriate? How do you insure reliability and validity with this method? Keep in mind the concepts of internal and external validity and explain how they may or may not pertain to the method you are describing.
Be prepared to give examples of some research using this method. State the pros and cons regarding the use of each methodology. These questions are designed to help you get started.

Research Proposal
The applied research proposal will allow you to demonstrate your understanding of APA formatting, research design, data collection, and analysis as it pertains to data driven educational decisions. The paper is to be written in 12pt. Font (Times New Roman). A minimum of 15 pages will be needed to complete your paper. Your paper will include at least 15 references. Plagiarism (including copying work from another student, present or former) is strictly prohibited. You will be working on your proposal independently.

Formal Presentation of Research
A formal presentation of your research proposal will be due April 7 or 14. You may use overheads or power point. The format will be consistent with presentations prepared for a professional meeting. Presentation slides will include, but are not limited to (a) Name and Affiliation, (b) Title, (c) Statement of the Problem or Purpose, (d) Review or Seminal articles, (e) Hypothesis, (f) Participants, (g) Instruments, (g) Procedures, (h) How you plan to analyze data, (i) Time Schedule (j), Budget, (k) Significance. You will be allowed a maximum of 15 minutes to present your research.

Exams
The quizzes, midterm, and final exam will be designed to test your knowledge of material discussed in class, text readings, and any additional materials provided. See course goals and objectives for test content.

III. Assessments and Grading:
The final grade for the course will be based on the following:
Oral Critique Discussions (1) 05%
Methodology Discussions 10%
Mid-term 10%
Quizzes (CougarVIEW) 10%
Power Point Presentation 10%
Research Proposal 25%
Written Critique (1) 10%
Final 20%

The following grading scale will be used:
A 100%-90%
B 89%-80%
C 79%-70%
D 69%-60%
F 59%-50% Late assignments will result in a loss of 5 points for each assignment
IV. Research-based Sources: 
Students are required to reference sources in all oral and written presentations. Refereed journals are required for critiquing of research articles.

V. Multicultural Education: 
Students are encouraged to recognize the diversity of populations participating in the applied research proposal as designed for assessment of students/programs and schools.

VI. Instructional Practices: 
This course will include lecture, discussion, oral presentations, group assignments, and homework assignments. Students will be responsible for reading handouts assigned in class. *These readings will be separate from the text and are to be read before the next class meeting.

VII. Field-based Experiences: 
Applied research proposals will be designed during this semester. Collection and analysis of data may be used by the student throughout the 6th year program to enhance expertise in a topic.

VIII. Computer Usage: 
Computers will be used for retrieving research articles, information off the web, and will be used for computation of statistics. Those having access to computers with Microsoft Word will input the analysis package for statistical computations of t-tests, correlations, ANOVA, ANCOVA, as well as other descriptive techniques. Students will be introduced to the Statistical Program for the Social Sciences (SPSS). A power point presentation will be required. Technology Integration: (Refer to ISTE standards for administrators)

IX: Other Information

ADA Accommodation Notice: If you have a documented disability as described by the Rehabilitation Act of 1973 (P.L. 933-112 Section 504) and Americans with Disabilities Act (ADA) and would like to request academic and/or physical accommodations please contact Joy Norman at the Office of Disability Services in the Center for Academic Support and Student Retention, Tucker Hall (706) 568-2330, as soon as possible. Course requirements will not be waived but reasonable accommodations may be provided as appropriate.

Academic Dishonesty Policy: No form of academic dishonesty will be tolerated. Academic dishonesty includes, but is not limited to, activities such as cheating and plagiarism. Any work turned in for individual credit must be entirely the work of the student submitting the work unless the instructor specifically provides other directions for group work. No collaboration of any type is allowed on quizzes or exams. With regard to homework or other graded assignments, you may get help, but may not copy from each other. Copying work, cheating, or plagiarism is the basis for disciplinary action. The penalty for academic dishonesty in this class is a failing grade (F) for the course. Specific information regarding academic misconduct is available in the Student Handbook at http://sa.colstate.edu/handbook/handbook.pdf
Additional Resources


Best Evidence Encyclopedia [www.bestevidence.org](http://www.bestevidence.org)

Comprehensive School Reform Quality Center [www.csrq.org](http://www.csrq.org)

Campbell Collaboration [www.campbellcollaboration.org](http://www.campbellcollaboration.org)

Evidence for Policy and Practice Information and Co-ordination Centre [www.eppi.ioe.ac.uk](http://www.eppi.ioe.ac.uk)

Free Wiki [www.pbwiki.com](http://www.pbwiki.com)

Explanation of Wiki [http://www.youtube.com/watch?v=-dnL00TdmLY](http://www.youtube.com/watch?v=-dnL00TdmLY)

On line Community: [www.Ning.com](http://www.Ning.com)

*The syllabus may change to accommodate the needs of the class.*

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<thead>
<tr>
<th>Date</th>
<th>Professor Responsibility</th>
<th>Student Responsibility</th>
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<tbody>
<tr>
<td>January 13</td>
<td>Introductions</td>
<td>APA Manual pages 9-56 (6th ed.) Reflect on administrative or teaching concerns to identify area of concern and begin to develop a research question. Research in the News weekly assignment for the semester.</td>
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<td>Student information sheet</td>
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<td>Syllabus</td>
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<td>Select dates for Oral Critiques and Methodology</td>
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<td>SPSS</td>
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<td>Library in-service</td>
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<td>January 20</td>
<td>Parts of a research article. Critiquing an article.</td>
<td>Chapter 1: <strong>Introduction to Educational Research</strong></td>
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<td>Over View of Research in Education</td>
<td>Group Work for critiquing practice</td>
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<td>Chapter 20: <strong>Research Report</strong></td>
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<tr>
<td>January 27</td>
<td>Introduction with Literature Review</td>
<td>Chapter 3: <strong>Reviewing Literature and Developing Questions</strong></td>
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<td>Explain how to identify problem for research/ Getting Focus</td>
<td>Chapter 4: <strong>How to Write a Research Proposal</strong></td>
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<td>Characteristics of quantitative, qualitative and mixed research. Discussion of 3 research paradigms.</td>
<td>Historical Method Article Critique</td>
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<td>APA formatting of a research proposal.</td>
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<td>February 3</td>
<td>Individual student meetings with professor as needed.</td>
<td>CougarVIEW quizzes 1-4</td>
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<td>February 10</td>
<td>IRB and Human Subjects</td>
<td>Chapter 5: <strong>Research Ethics</strong></td>
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<td>February 17</td>
<td>Meaning of measurement. Thorndike’s explanation. Measurement Scales.</td>
<td>Chapter 6: <strong>Standardized Measurement and Assessment</strong></td>
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<td>Phenomenology Research Method</td>
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<td>Date</td>
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<td>February 24</td>
<td>Reliability and Validity. Computation of reliability and methods to insure valid data collection.</td>
<td>Article Critique</td>
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| March 3    | Introduce 8 methods of data collection. Sampling techniques, terminology and importance of sample size as determined by statistical power. | Chapter 8: **Methods of Data Collection**  
Chapter 9: **Sampling**  
Case Study Research Method  
Article Critique                  |
| March 3    | Instrumentation  
Threats to Validity  
Designs to control for threats to validity. Introduce Campbell & Stanley’s 8 threats. | Chapter 10: **Validity**  
Article Critique  
Survey Research Method                  |
| March 3    | **Mid-Term Exam**                                                      | Take Home/ Due March 17th  
CougarVIEW 5-10                  |
| March 10   | **Spring Break**                                                       | No class                          |
| March 17   | Explanation of experimentation for cause and effect results. Independent and dependent variables  
Introduce concept of interaction. Quasi-experimental designs as non-randomized samples. | Chapter 11: **Experimental Research**  
Chapter 12: **Quasi-Experimental**  
Action Research Method  
Article Critique                  |
Chapter 16: **Mixed Research**  
Article Critique  
Program Evaluation Research                  |
| March 31   | Statistics used in data organization. Explanation of computation by hand and using SPSS. Things to Ponder | Chapter 17: **Descriptive Statistics**  
Method Chapter 18: **Inferential Statistics**  
Statistics Practice Assignment                  |
| April 7    | Evaluate Presentations                                                | Power Point Presentations 12-15 minutes each.                  |
| April 14   | Evaluate Presentations                                                | Power Point Presentations 12-15 minutes each.  
**CougarVIEW 11, 17, 18 and 19**                  |
| April 21   | **Final exam given to class**                                         | Final exam taken by the class.                  |
| April 28   | **All Work Due: 5 pts. deducted for late work**                      | All Work Due: Written critique and proposal.                  |
Methodology Questions to be discussed each week

You should address the following 10 items regarding your research method.

1. When is the method used?
2. How is it used and what types of questions will it answer?
3. What type of data collection is used?
4. What type data analysis is most appropriate?
5. How do you insure reliability and validity with this method?
6. Keep in mind the concepts of internal and external validity and explain how the two concepts may or may not pertain to the method you are describing.
7. Give examples of some research using this method (not the example in the book).
8. State pros and cons.
9. Did the group cover the topic well enough for the class to thoroughly understand the methodology?
10. Did the researchers show mastery of the methodology?
CRITUING A RESEARCH ARTICLE

Use APA format to reference your research article (5th edition). Articles must be obtained from a peer-reviewed journal. You must critique an article that pertains to your proposal topic.

The following list of questions may be used as a basis for evaluating a research article. This is not a set model but an outline to help evaluate published research. Your oral critique is worth 5 points; the written critique is worth 10 points and must be in typed 12pt. Font (Times New Roman).

1. What is the problem?
   a. Is it significant?
   b. Is it properly delimited?
   c. Is it clearly described or implied?
   d. Are assumptions and limitations recognized?
   e. What is the independent variable?
   f. What is the dependent variable?
   g. Are the independent and dependent variables stated in the article title?

2. What is/are the hypothesis/hypotheses?
   a. Are hypotheses made explicit?
   b. Are hypotheses clear?
   c. Does the study have practical or theoretical value?
   d. Does the hypothesis lend itself to empirical testing?
   e. Can data be obtained?

3. What are the methods or procedure?
   a. Is the method appropriate to the hypothesis? Explain why.
   b. If the method is not appropriate to the hypothesis explain what might have been a better approach, and why.
   c. Do procedures follow an orderly, logical sequence? Explain.
   d. Is there evidence of review of previous studies to indicate context of this study in related body of knowledge?
   e. Are research procedures described in detail to permit verification or replication?

4. What information is provided about the participants?
   a. How many subjects participated in the study?
   b. Are the participants studied a representative case sample?
   c. What evidence is given about sampling techniques?
   d. Are there sufficient numbers of participants for observation?
   e. Was approval to conduct the study obtained? From whom?
   f. Did participants sign an informed consent?
5. **What source of data is identified?**
   
   a. Are data-gathering devices appropriate? Could other instruments be used?
   c. Are sufficient amounts and appropriate kinds of data obtained?
   d. How is the data recorded?

6. **How are the data analyzed?**
   
   a. What logical consequences were deduced from the hypothesis?
   b. Was an appropriate significance test applied to the findings?
   c. What was the nature of the analysis? (verbal description, statistical manipulation, tables of frequency counts, etc.)

7. **What important conclusions are presented?**
   
   a. Were the conclusions sound according to the data?
   b. Did the conclusions conform to good logic; were they internally consistent, free from self-contradiction?
   c. What are the positive aspects of this research?
   d. What are the negative aspects of this research?

8. **How do you evaluate the written report?**
   
   a. Is the style clear, objective, and readable?
   b. Is the article long enough to adequately cover the topic?
   c. Are the tables and/or figures helpful in clarifying the information?

9. **Could the research have been improved to control for effects of extraneous variables?**
   
   a. Were there threats to external validity?
   b. Were there threats to internal validity?
   c. Was there research bias evident?

10. **Using your professional expertise, reflect on how this research article may be used in your field.**
Method discussion leader/presentations

Historical Research Method
1. _____________________________

Ethnographic Research Method
1. _____________________________

Phenomenology Research Method
1. _____________________________

Case Study Research Method
1. _____________________________

Survey/Questionnaire Research Method
1. _____________________________

Action Research Method
1. _____________________________

Program Evaluation Research Method
1. _____________________________
2. _____________________________
## Dates for Oral Article Critiques

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