I. Course Title:

EDU 6504 Research: Methods and Procedures

II. Prerequisites:

Graduate standing.

III. Course Description:

This course is designed as an introductory course in educational research. Emphasis is placed on reading basic research methodologies in the social and behavioral sciences and critical analysis of published research. The student is required to develop a research proposal.

IV. Rationale:

The rationale is to familiarize the beginning researcher with the techniques and procedures for conducting an original research project. The focus is on the typical and practical problems encountered in research, beginning with the formulation of the question and continuing through the preparation of a final research proposal. The conceptual framework of the School of Education department focuses on the utilization of "best practices" in the work of the professional educator. Educational research requires the professional educator to use research skills in determining which practices work best in his/her classroom or office.

V. Learning Objectives and Outcomes:

The course is designed to enable students to:

- A. Understand the terminology of educational and psychological research.
- B. Understand the nature and goals of research.
- C. Understand quantitative and qualitative research methodologies in education.
- D. Understand the nature, importance and sources of research problems, and the use of results to improve the effectiveness of teaching, administration and counseling.
- E. Conduct a review of related literature.
- F. Understand the characteristics and types of hypotheses.
- G. Understand the nature and use of descriptive statistics in a research project.
- H. Understand the nature and use of sampling techniques and inferential

statistics in a research project.

- I. Understand the use of computers and other scientific tools in educational research.
- J. Understand the nature of reliability and validity.
- K. Understand the nature of needs assessment and program evaluation.
- L. Understand the characteristics and functions of experimental, quasi-experimental, and single-subject research.
- M. Understand the characteristics and functions of causal-comparative research.
- N. Understand the characteristics and functions of descriptive, case, and correlational research.
- N. Understand the characteristics and functions of survey and historical research.
- O. Understand the characteristics and functions of action and outcome-based research.
- P. Understand the legal and ethical issues related to doing research.
- Q. Develop research proposals according to APA guidelines for writing.
- R. Understand electronic technology's relationship to research writing, sampling, and data analysis.

VI. Academic Integrity:

The 2008-09 Mississippi College <u>Graduate Catalog</u> addresses the University's position on academic integrity. All students are responsible for knowing the rules and penalties for cheating and plagiarism. See Policy 2.19 on the MC web site for additional information. The 2008-09 <u>Graduate Catalog</u> may be viewed on the Mississippi College web site.

VII. Course Topics:

The major topics to be covered in EDU 6504 are:

- A. Sources of knowledge and the scientific method
- B. Categories and types of research
- B. Sources of research problems
- C. Stating the problem
- D. Role of related literature
- E. Reference sources in education
- F. Organizing the related literature

- G. Types of hypotheses
- H. Writing the research proposal
- I. Measurement tools and reliability and validity of instruments
- J. Descriptive statistics
- K. Sampling and inferential statistics
- L. Research designs and validity
- M. Ex Post Facto, Action and Evaluation research
- O. Correlational and Survey research

VIII. Instructional Methods:

Instructional methods for EDU 6504 will include:

Lecture, logon visits to the Mississippi College On-Line Library, cooperative discussion threads, chat room sessions, individual work in the library, and student/teacher on-line or phone conferences when needed.

IX. Assignments:

A. Tests 100 points

B. Lesson writing assignments 100 points

C. Journal article critiques 50 points

D. Research proposal - draft 50 points

E. Research proposal - final version 100 points

F. Participation in threaded discussions and chat rooms 100 points

Explanations of assignments:

1. Research Proposal and Drafts (C and D): the research proposal (drafts and final paper) should be typed using APA format. The two research proposal drafts will count for up to 25 points each. The first draft will include the literature review, research question, hypothesis, and initial reference section. The second draft will include the same content as the first draft, and will also include hypothetical methodology sections of the proposal (subjects, instruments, and procedures). The final proposal will include all of the aforementioned content and will also include hypothetical discussion and results sections. The final research proposal should be 10 to15 pages in length with a minimum of 15 references. The reference list should include a majority of (no less than 10) empirical research articles. If you cannot find an adequate number of empirical research articles on the topic, you will need to select a different topic that does have an adequate number of empirical research articles available. The student should follow the outline provided by the instructor for completing the drafts and final research proposal. The drafts of the

research proposal will be turned in to the instructor for grading, as will the final paper . Students are expected to spend considerable time outside of class hours in the preparation of their proposal drafts and final proposal paper.

- 2. Tests: students will take a test at the end of each lesson that covers the major ideas presented in the lesson. The tests will be multiple choice, and students will have one opportunity to retake the test to improve the test score if desired.
- 3. Journal article critiques: the student will select two scholarly, refereed journal articles on the topic of their research proposal and use a guide provided by the instructor to summarize and critique the articles.
- 4. Lesson writing assignments: these writing assignments are designed to help students learn about how to structure a research proposal and become familiar with the important concepts needed to prepare the research proposal. The written products will provide information that students can incorporated into their drafts and final version of the research proposal.
- 5. Participation in Discussion threads and Chat Room sessions: students will participate in discussions and chat room sessions in which they will share what they are learning and request clarification regarding the work they are doing in the course. Students must post their response to the discussion assignment before midnight Thursday of each week, and respond to the postings of at least two class members before midnight Sunday of each week.

X. Evaluation:

Students will be evaluated on the assignments listed in Section IX. The relative value of each assignment is to the right of each area of assessment. The following grading scale will be used:

A - 93% - 100% Superior

B+ - 89% - 92% Intermediate

B - 85% - 88% consistently good

C+ - 81% - 84% Intermediate

C - 77% - 80% average work

D - 76% - 70% below standard

F - < 69% failure – no credit

Please review the <u>Graduate Catalog</u> for a fuller description of each grading category.

XI. Additional Course Information:

A. Participation Policy:

Students are required to participate in all threaded discussions and at least one chat room discussion.

B. Special Accommodations:

If you need special accommodations due to learning, physical, psychological, or other disabilities, please contact the Counseling and Career Development Center. The Center can be reached by phone at 601)925-3354 or by mail at P.O. Box 4063, Clinton, MS 39058. Dr. Wagner's office is in Lowrey 106.

C. Class Communications:

Dr. Bill Wheeler

Cell phone: 434-851-4005

E-mail: hwwheeler@liberty.edu - use only your mc e-mail account, and preface the subject line with the course number, 6504.

XII. Instructional Materials and Bibliography:

A. Required Textbooks:

Ary, D., Jacobs, L. C., Razavieh, A., & Sorensen, C. (2006). <u>Introduction</u> to research in education (7th ed.). Belmont, CA: Thomson Wadsworth.

American Psychological Association. (2001). <u>Publication</u> <u>manual of the American Psychological Association</u> (5th ed.). Washington, DC: Author.

Pyrczak, Fred & Bruce, Randall, R. (2007). Writing Empirical Research Reports (6th ed.). Glendale, CA: Pyrczak

Pyrczak, F. (2003). <u>Evaluating research in academic journals: A practical guide to realistic evaluation (2nd ed.)</u>. Los Angeles: Pyrczak.

Optional:

Cronk, B. (2004). How to use SPSS, 5th ed.). Los Angeles: Pyrczak.

B. Contemporary Bibliography:

Coladarci, T., Cobb, C. D., Minium, E. W., & Clarke, R. C. (2004). <u>Fundamentals of statistical reasoning in education</u>. Hoboken, NJ:

- Wiley/ Jossey Bass.
- Creswell, J. W. (2002). <u>Educational research: Planning conducting, and evaluating quantitative and qualitative research</u>. Upper Saddle River, NJ: Pearson/Merrill/Prentice hall.
- Fraenkel, J. R., & Wallen, N. E. (2006). <u>How to design & evaluate research</u> in education (6th ed.). Boston: McGraw Hill.
- Gall, M. D., Gall, J. P., & Borg, W. R. (2007). <u>Educational research: An</u> introduction (8th ed.). Boston: Pearson/Allyn and Bacon.
- Gay, L. R., Mills, G. E., & Airasian, P. (2006). <u>Education research: Competencies for analysis and application</u> (8th ed.). Upper Saddle River, NJ: Pearson.
- Hittleman, D. R., & Simon, A. J. (2002). <u>Interpreting educational research:</u>
 <u>An introduction for consumers of research.</u> Upper Saddle River, NJ:
 Merrill/Prentice Hall.
- Jones, W. P., & Kottler, J. A. (2006). <u>Understanding research: Becoming a competent and critical consumer</u>. Upper Saddle River, NJ: Pearson/ Merrill/ Prentice Hall.
- McMillan, J. H., & Wergin, J. F. (2002). <u>Understanding and evaluating educational research</u> (2nd ed.). Upper saddle River, NJ: Merrill/Prentice Hall.
- Mills, G. E. (2003). <u>Action research: A guide for the teacher researcher (2nd ed.)</u>. Upper Saddle River, NJ: Merrill/Prentice Hall.
- Orcher, L. T. (2005). <u>Conducting research: Social and behavioral science methods</u>. Glendale, CA: Pyrczak.
- Shaughnessy, J. J., Zechmeister, E. B., & Zechmeister, J. S. (2006). <u>Research</u> methods in psychology. St. Louis: McGraw Hill.
- C. Classic Bibliography:
- Aron, A., & Aron, E. N. (1999). <u>Statistics for psychology</u> (2nd ed.). Upper Saddle River, NJ: Prentice Hall.
- Cook, T. D., & Campbell, D. T. (1979). <u>Quasi-experimentation: Design & analysis issues for field settings.</u> Boston: Houghton Mifflin.
- Crowl, T. K. (1986). <u>Fundamentals of research: A practical</u> guide for educators and special educators. Worthington, OH: Publishing Horizons.

Schmuck, R. A. (1997). <u>Practical action research for change.</u> Arlington Heights, IL: IRI/SkyLight.