Introduction to Research

I. Course Description

The graduate level course is offered in support of graduate degree programs in the College of Education. It is designed to introduce the student to the fundamentals of research in education and applied behavioral sciences. That is, students will explore what research involves, the various types of research, the techniques for conducting research studies, ethical behavior in the conduct of research, and research in educational settings. Descriptive and inferential statistics will be presented in the context of the research study. Social issues related to educational research will also be presented and discussed.

II. Rationale

All educators are either practitioners or consumers of research. It is important that students of education and applied behavioral sciences know and understand the elements of research in order to be able to evaluate critically and/or conduct research to enhance one's skills and advance the knowledge of the field. This course will provide the student with a basic framework for understanding and evaluating research studies. It will also provide knowledge of the various types of research designs used in research and the procedures for conducting research studies. The course is applicable for all students who will make professional use of research or conduct research studies.

III. State Adopted Proficiencies for Teachers and/or Administrators/Counselors

The following state adopted proficiencies for mid-management administrators are covered in this course.

- Learner-Centered Leadership
- Learner-Centered Professional Development

IV. TExES Competencies - NA
V. **Course Objectives/Learning Outcomes**

Upon successful completion of the course, the student should be able to demonstrate knowledge and understanding of:

1. The historical and social antecedents of research studies.
2. The basic skills required to comprehend and apply research studies in a variety of educational and clinical settings.
3. The professional skills and competencies that researchers and users of research studies must master.
4. The basic measurement, statistical, and research skills needed to understand and conduct research studies.
5. The different types of research designs and their appropriate usage.
6. Ethical standards and considerations in conducting research in an educational setting.

**The course is also designed to meet the following CACREP Standards II-G-8-a-f:**

**RESEARCH AND PROGRAM EVALUATION**—studies that provide an understanding of research methods, statistical analysis, needs assessment, and program evaluation, including all of the following:

a. The importance of research in advancing the counseling profession;

b. research methods such as qualitative, quantitative, single-case designs, action research, and outcome-based research;

c. statistical methods used in conducting research and program evaluation;

d. principles, models, and applications of needs assessment, program evaluation, and the use of findings to effect program modifications;

e. the use of research to inform evidence-based practice; and

f. ethical and culturally relevant strategies for interpreting and reporting the results of research and/or program evaluation studies.

**Major Learning Outcomes**

- Students will have the knowledge and understanding of research methods such as qualitative, quantitative, single-case designs, action research, and outcome-based research.
Secondary Learning Outcomes

• Students will have the knowledge and understanding of statistical concepts, including scales of measurement, measures of central tendency, indices of variability, shapes and types of distributions, and correlations.

• Students will have the knowledge and understanding of the importance of research in advancing the counseling profession.
• Students will have the knowledge and understanding of statistical methods used in conducting research and program evaluation.
• Students will have the knowledge and understanding of the use of research to inform evidence-based practice.
• Students will have the knowledge and understanding of the principles, models, and applications of needs assessment, program evaluation, and the use of findings to effect program modifications.
• Students will have the knowledge and understanding of ethical and culturally relevant strategies for interpreting and reporting the results of research and/or program evaluation studies.

VI. Course Topics

1. Part A – Introduction to Research Methods
2. Part B – Reviewing Literature
3. Part C - Sampling
4. Part D - Measurement
5. Part E – Experimental Design
6. Part F – Understanding Statistics
7. Part G – Effect Size and Meta Analysis
8. Part H – Qualitative Research and Mixed Methods Research
9. Part I – Preparing Research Reports
10. Program evaluation is presented in Parts A, E, G, and H

VII. Instructional Methods and Activities

1. Lecture/discussion
2. Practice problems
3. Individual homework assignments
4. In-class group assignments
5. Critique of a research article
VIII. Evaluation and Grade Assignment

<table>
<thead>
<tr>
<th>Assignment</th>
<th>Percentage</th>
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<tbody>
<tr>
<td>Individual/Group Assignments</td>
<td>30%</td>
</tr>
<tr>
<td>Test I (Parts A and B)</td>
<td>20%</td>
</tr>
<tr>
<td>Test II (Parts C and D)</td>
<td>20%</td>
</tr>
<tr>
<td>Test III (Parts E, F, and G)</td>
<td>20%</td>
</tr>
<tr>
<td>Research Paper Critique</td>
<td>05%</td>
</tr>
<tr>
<td>Protection of Human Participants Tutorial Course</td>
<td>05%</td>
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</tbody>
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Grading Scale:

- 90 – 100 A
- 80 - 89 B
- 70 - 79 C
- 60 - 69 D
- < 60 F

Incomplete, I - “An incomplete notation may be given to a student who is passing but has not completed a term paper, examination, or other required work for reasons beyond the student’s control other than lack of time.”

IX. Course Schedule and Policies

1. Course schedule follows the course topics (see VI).
2. Late assignments are not accepted except in extenuating circumstances at the discretion of the instructor. Students who find that they are unable to be at an examination session because of illness or extenuating circumstances should contact the instructor as soon as the condition becomes apparent to arrange fair and practical extensions.
3. The instructor expects complete honesty in the completion of test and assignments. Plagiarism, “the act of taking the work/writings of another person and passing them off as one's own,” is not tolerated.
4. Cell phones must be off. Text messaging is not allowed. No food consumption.

X. Textbooks


Course Packet (derived from various sources)
XI. Bibliography


XII. Grade Appeals

As stated in University Rule 13.02.99.C2, Student Grade Appeals, a student who believes that he or she has not been held to appropriate academic standards as outlined in the class syllabus, equitable evaluation procedures, or appropriate grading, may appeal the final grade given in the course. The burden of proof is upon the student to demonstrate the appropriateness of the appeal. A student with a complaint about a grade is encouraged to first discuss the matter with the instructor. For complete details, including the responsibilities of the parties involved in the process and the number of days allowed for completing the steps in the process, see University Rule13.02.99.C2, Student Grade Appeals, and University Procedure 13.02.99.C2.01, Student Grade Appeal Procedures. These documents are accessible through the University Rules Web site at http://www.tamucc.edu/provost/university_rules/index.html. For assistance and/or guidance in the grade appeal process, students may contact the Office of Student Affairs.

XIII. Disability Accommodations

If you have disability-related needs and/or are a returning veteran and experiencing cognitive and/or physical access issues in the classroom or on campus, please contact the office of Disability Services (361-825-5816) and then inform the instructor. Every attempt is made in the course to conform to the University’s policies on disabilities.