I. Course Description

This class is designed for introduction to the use of meta-analysis and related methods used to synthesize and evaluate clinical research in the counseling field. Concepts introduced and illustrated through case studies of psychotherapy and counseling.

II. Rationale

This course serves as one of the greatest elective courses of the Ph.D. program in Counselor Education and is designed to address the nature of the systematic reviews and meta-analysis, understanding some of the main concepts in research in meta-analysis, and demonstrating the application of the meta-analysis.

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

NA

IV. TExES Competencies

NA

V. Course Objectives

This course objectives are designed to address the needs of Doctoral Level Counseling Students in our CACREP accredited program. Accordingly, this course will emphasize the followings: To learn how to use a variety of formal and informal methods for synthesizing epidemiological information on counseling concerned issues and to understand how to use these methods to assess the strength of the evidence in the counseling literature. This emphasis is based on the following

2016 CACREP standards:

- CACREP Standard 2-F-8-b. Identification of evidence-based counseling practices
- CACREP Standard 2-F-8-e: Evaluation of counseling interventions and programs.
- CACREP Standard 2-F-8-g. Designs used in research and program evaluation
• CACREP Standard 2-F-8-h: Statistical methods used in conducting research and program evaluation

• CACREP Standard 2-F-8-i. Analysis and use of data in counseling

Doctoral Standards:

CACREP Standard 6-B-4-d. Emergent research practices and processes

CACREP Standard 6-B-4-f: Models and methods of program evaluation

CACREP Standard 6-B-4-h: Professional writing for journal and newspaper publication.

B. Student Learning Outcomes:
This course infuses the Learning Objectives of CACREP Section 2 and Section 6 Standards. Upon completion of this course, the student will be able to:

1- Student demonstrates learning of systematic review and meta-analysis in counseling practices by completing class projects.

2- Student will demonstrate proficiency in identifying candidate studies, screening studies, preparing database, coding studies, and analyzing and writing results.

VI. Course Topics

- Introduction to systematic reviews & meta-analysis
- Discussion on reporting bias
- Introduction to semester project
- Problem specification and retrieval
- Discussing search principles
- Developing a search strategy, using end note/data management software
- Understanding effect size, confidence intervals, and prediction intervals
- Factors that affect precision
- Data management
- Screening studies & study quality
- Coding studies and effect size data
- Evaluating study characteristics and quality
- Computational Strategies, using CompMeta
- Fixed Effect versus Random Effect Model
- Computing confidence & prediction intervals
- Evaluating heterogeneity & publication bias
- Interpreting and using meta-analysis results
- Subgroup analysis and meta-regression
- Presenting findings: Tables and Figures
- Reporting Results
- Preparing a manuscript to report a meta-analysis

VII. Instructional Methods and Activities
Instruction will be primarily based on lectures, demonstrations, and exercises.

COURSE ASSIGNMENTS

Candidate Articles Report: In this assignment, student is expected to submit a brief report of candidate articles for a possible meta-analysis manuscript. The subject of this article will be discussed between the instructor and the student at the beginning of the semester.

Coding a Study: The student will code the articles that is being used for the meta-analysis manuscript. The article will be assigned by the instructor.

Meta-Analysis Manuscript: The instructor and the student will be working on a manuscript throughout the semester. All steps and dates to complete the manuscript such as searching for candidate articles, coding, and writing result section are provided on the tentative schedule. By the due date, the manuscript will be ready to publication.

VIII. Evaluation an Grade Assignment

COURSE EVALUATION AND GRADE ASSIGNMENT

If the assignments are completed, the student will receive an "A". However, the assignments are not completed by the due dates, it will be considered as incomplete and student will be given time to complete the work.

FINAL GRADE GUIDELINES

Grades assignment will be based on the following scale:

<table>
<thead>
<tr>
<th>Assignments completed</th>
<th>A</th>
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<tbody>
<tr>
<td>Incomplete assignments</td>
<td>Incomplete</td>
</tr>
</tbody>
</table>
Grade Dispute Policy

If you do not understand the reason you received a specific grade on any assignment, please feel free to contact me so that we can clear up any confusion or uncertainty. If you believe a grade should be reconsidered, take time to review my comments and follow the instructions below:

1. Wait at least 24 hours after receiving the grade, but no more than one week to talk with me. We will arrange a meeting for this discussion. This discussion will not be via email.

2. Your specific reasons for receiving another grade must be written in a memo to me (2 page max).

3. The original copies of the evaluation and all associated assignments must be included with your written memo.

*Please note that there is no guarantee that a reconsideration of your work will yield a higher grade. Any grade given during one semester cannot be reconsidered in the subsequent semester (i.e. a grade given in the fall semester cannot be reconsidered in the spring semester).

IX. Course Policies and Schedule

Participation & Professionalism

This class will be an independent study. Meetings will be held on pre-determined dates and the student is expected to attend. Also, this class will require that you read assigned material prior to the class period in which the reading is discussed. It is also expected that your cell phones be turned off or on vibrate and not visible for the duration of the class. More than two unexcused absences will result in non-credit for the course.

Late Work Policy

One added challenge to attending graduate school coursework is that many students have families, work part or full-time jobs, and have to negotiate a number of responsibilities outside of the classroom. As a faculty member I acknowledge that it is understandable that life circumstances may take precedence to your school work and encourage you to plan, when possible, the turning in of your assignments and completion of course activities in the event that you should have to miss class. As a policy, all assignments are to be turned in by the beginning of class on the due day. I do not accept any late work that is not accompanied by documentation (e.g. medical professional, computer technician report, etc.); however, I will accept incomplete work and score what work has been completed.

Diversity

The Department of Counseling and Educational Psychology aspires to create a safe and diversity-sensitive learning environment that respects the rights, dignity, and welfare of students, faculty, and staff. Diversity means the fair representation of all groups of individuals, the inclusion of minority perspectives and voices, and appreciation of different cultural and socioeconomic group practices. We aspire to foster and maintain an atmosphere that is free from discrimination, harassment, exploitation, or intimidation. Department courses will strive to
provide opportunity for all students to discuss issues of diversity including, but not limited to, ethnicity, gender, disability, and sexual orientation.

**Disability Accommodations**

The Americans with Disabilities act (ADA) is a federal anti-discrimination statute that provides comprehensive civil rights protection for persons with disabilities. Among other things, this legislation requires that all students with disabilities be guaranteed a learning environment that provides for reasonable accommodation of their disabilities. If you believe you have a disability requiring an accommodation, please call or visit Disability Services at (361) 825-5816 in Driftwood 101. If you are a returning veteran and experiencing cognitive and/or physical access issues in the classroom or on campus, please contact the Disability Services office for assistance at (361) 825-5816.

**Statement of Academic Continuity**

In the event of an unforeseen adverse event, such as a major hurricane and classes could not be held on the campus of Texas A&M University-Corpus Christi; this course would continue through the use of Blackboard and/or email. In addition, the syllabus and class activities may be modified to allow continuation of the course. Ideally, University facilities (i.e., emails, web sites, and Blackboard) will be operational within two days of the closing of the physical campus. However, students need to make certain that the course instructor has a primary and a secondary means of contacting each student.
Written Assignments and Academic Misconduct

All written work submitted must be the student's original work and conform to the guidelines format and style indicated within the *American Psychological Association (APA) Publication Manual*, Sixth Edition available online and via their publications catalog. This means that any substantive ideas, phrases, sentences, and/or any published ideas must be properly referenced to avoid even the appearance of plagiarism. Plagiarism includes, but is not limited to, the use, by paraphrase or direct quotation, of the published or unpublished work of another person without full or clear acknowledgment. It also includes the unacknowledged use of materials prepared by another person or agency in the selling of term papers of other academic materials. It is the student's responsibility to know all relevant university policies concerning plagiarism. Any documented cases of plagiarism can and will result in dismissal from the course with a failing grade, and may result in other more serious sanctions by the College of Education.

Your written work may be submitted to Turnitin.com, or a similar electronic detection method, for an evaluation of the originality of your ideas and proper use and attribution of sources. As part of this process, you are required to submit electronic copies of your written work or may be given other instructions to follow. By taking this course, you agree that all assignments may undergo this review process and that the assignment may be included as a source document in Turnitin.com’s restricted access database solely for the purpose of detecting plagiarism in such documents. Any assignment not submitted according to the procedures given by the instructor may be penalized or may not be accepted at all.

<table>
<thead>
<tr>
<th>Week</th>
<th>Topic</th>
<th>Readings</th>
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| 1    | • Introduction to systematic reviews & meta-analysis.  
      • Discussion on reporting bias  
      • Introduction to semester project | Borenstein et al.- Ch. 1, 2 |
| 2    | • Problem specification and retrieval  
      • Discussing search principles  
      • Developing a search strategy, using end note/data management software  
      • **SP: Developing search terms for project** | Erford et al., 2010  
                                              Mahood et al. 2013 |
| 3    | • Understanding effect size, confidence intervals, and prediction intervals  
      • Factors that affect precision  
      • **SP: Begin searching for candidate articles** | Borenstein et al.- Ch. 3, 4, 6, 8 |
| 4    | • Data management  
      • **SP: Develop Coding Guide and Continue searching for studies** | None |
| 5    | • Screening studies & study quality  
      • **SP: screen studies and prep for database** | MARS-JARS report |
<table>
<thead>
<tr>
<th>entry</th>
<th>Candidate Articles Report Due</th>
</tr>
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</table>
| 6     | • Coding studies and effect size data  
       | • **SP: Begin coding studies** | None |
| 7     | • Evaluating study characteristics and quality  
       | • **SP: Continue Coding Studies** | PRISMA Statement |
| 8     | • Computational Strategies, using CompMeta  
       | • Fixed Effect versus Random Effect Model  
       | • Computing confidence & prediction intervals  
       | • **SP: Continue Coding Studies**  
       | • **Coding a Study Due** | Borenstein et al Ch. 10, 11, 12 |
| 9     | • Evaluating heterogeneity & publication bias  
       | • Interpreting and using meta-analysis results  
       | • **SP: Compute ES, Cls, Pis, heterogeneity analysis** | Borenstein et al. 15, 16 |
| 10    | • Subgroup analysis and meta-regression  
       | • **SP: complete meta-regressions and sub-group analysis** | Borenstein et al. Ch. 19, 20 |
| 11    | • Presenting findings: Tables and Figures  
       | • **SP: Create Table 1 & Forest Plots** | Anzures & Higgins, 2010  
       |                     | Schild & Vorachek, 2015 |
| 12    | • Reporting Results  
       | • Power Analysis  
       | • **SP: Write Results section for project** | Valentine et al. (2010)  
       |                     | Borenstein et al. Ch. 29 |
| 13    | • Preparing a manuscript to report a meta-analysis  
       | • Target journal  
       | • Target gap in literature | |
| 14    | • Writing Discussion Section for the project | |
| 15    | • Writing Implications, Limitations Section for the project  
       | • Overview of the course  
       | **Meta-Analysis Manuscript Due** | |
Required Text Books


Suggested Readings


