META-ANALYSIS
Psychology 607, Spring 2015
Tues 12:00-1:50pm
483 Straub

Lou Moses
Office: Straub 427
Office Hours: Friday 1-2
(541) 346-4918
moses@uoregon.edu

OVERVIEW

This course provides a conceptual and practical introduction to basic methods for conducting a systematic literature review using meta-analysis. Meta-analysis consists of a collection of techniques for analyzing and integrating findings across studies. We will touch on all parts of the research synthesis process, including: problem formulation, literature searches, effect size coding, fixed and random effects models, heterogeneity, sub group analyses and meta-regression, publication bias, and reporting of meta-analytic results.

By the end of the course, students will be able to: Conduct a systematic literature search to identify studies eligible for a meta-analysis; extract and code information from eligible studies based on clearly defined criteria; appropriately analyze data using meta-analytic software; prepare a written report describing and interpreting meta-analytic findings; critically assess the pros and cons of published meta-analytic literature.
RELEVANT TEXTS

There is no required text for the course. However, the following texts are useful resources:


REQUIREMENTS

Class Participation (30%). Class meetings will typically involve some combination of lecture and discussion. Your contributions to the discussion are key to establishing a lively intellectual climate for the course.

Meta-Analysis Critique (30%). A 15-20 minute PowerPoint presentation critiquing a published meta-analysis in an area of interest. The critique should include a summary of the central questions addressed in the meta-analysis, how the data were collected and analyzed, the main findings and conclusions, and a discussion of strengths and weaknesses. Please send me the article you plan to review for approval by Tuesday, April 14.

Meta-Analysis Project (40%). Conduct, present, and write-up your own original meta-analysis on a topic of interest. The meta-analysis might be the first on the topic or it might be an updating, refinement, or extension of a prior meta-analysis. Most projects will contain no more than 10-20 studies to keep them manageable within the time-frame of the course. You will need to find original sources, code relevant study characteristics, analyze the data with appropriate meta-analytic techniques, and write a paper in APA format. Papers should be 10-15 pages double-spaced, excluding tables and figures. Meta-analysis projects will be presented to the class in the last 3 weeks of term for feedback. Please feel free to seek me out to discuss your project ideas in advance. Meta-analytic papers are due Wednesday, June 10 by 5 p.m.
TENTATIVE SCHEDULE OF TOPICS

**Week 1 (March 31):**
Overview
History
Steps in a Meta-Analysis

**Week 2 (April 7):**
Problem Formulation
Literature Search
Effect Sizes and Effect Size Coding

**Week 3 (April 14):**
Basic Meta-Analysis
Fixed and Random Effects Models

**Week 4 (April 21):**
Heterogeneity
Meta-Analysis Critiques

**Week 5 (April 28):**
Moderators
Sub Group Analyses
Meta-Regression
Meta-Analysis Critiques

**Week 6 (May 5):**
Publication Bias
Meta-Analysis Critiques

**Week 7 (May 12):**
Special Topics
Meta-Analysis Critiques

**Week 8 (May 19):**
Special Topics
Meta-Analysis Projects

**Week 9 (May 26):**
Special Topics
Meta-Analysis Projects

**Week 10 (June 2):**
Conclusions
Meta-Analysis Projects