Course Code	APİ-323
Name of the Course	Meta Analysis
Required / Elective	Elective
AKTS	7,5
Semester	Spring
Programme	ADLİ PSİKOLOJİ

COURSE DESCRIPTION

Meta-analysis is becoming the gold standard method of reviewing and summarizing the scientific literature, and it has contributed greatly to the current body of scientific knowledge. Meta-analysis is a methodology for conducting quantitative literature reviews in which the outcomes of empirical research studies are aggregated. Meta-analysis can be applied to any field in which empirical studies are performed and represents a powerful tool for addressing important questions in various fields.

Meta-analysis is the statistical synthesis of the results of different research studies. These tools and the conceptual framework on which they are based provide a widely implemented, cross-disciplinary statistical framework for quantifying, pooling, and evaluating the results of different studies on the same topic.

This course will cover the framework of meta-analysis. Students will learn basic concepts and how to conduct a meta-analysis from start to finish, including formulating hypotheses, extracting data from primary literature, computing effect sizes, testing for the effects of covariates (moderators or explanatory variables), examining assumptions and sources of bias, and presenting the results.

COURSE OBJECTIVES

This course aims to introduce the concepts and procedures of meta-analysis and will help students to apply these in practice. Problem formulation, data collection (sampling studies), data evaluation (coding studies), data analysis and interpretation (estimation and hypothesis-testing), and presentation of results are critical steps in a meta-analysis and will be covered in depth.

EVALUATION

Midterm exam, final exam, assignments, final project.

COURSE PLAN

WEEK 1	Syllabus & Introduction
WEEK 2	Effect Size and Precision
WEEK 3	Fixed-Effect Versus Random-Effects Models
WEEK 4	Heterogeniety
WEEK 5	Heterogeniety
WEEK 6	Complex Data Structures
WEEK 7	Student Presentations of Selected Articles
WEEK 8	Midterm Exam
WEEK 9	Other Issues – Power Analysis For Meta-Analysis & Publication Bias
WEEK 10	Issues Related to Effect Size & Further Methods
WEEK 11	Student Presentations of Selected Articles
WEEK 12	Meta-Analysis In Context & Resources and Software (CMA)
WEEK 13	Student presentations of Mini-Meta-Analysis Project
WEEK 14	Review for final

Suggested Bibliography for the Course:

Borenstein, M., Hedges L. V., Higgens, J. P. T. & Rothsteim H. R. (2009). *Introduction to Meta-Analysis*. Wiley.