

# EDUCATION RESEARCH (EDR)

## EDR 3891 - Quantitative and Qualitative Methods in Research

3 Credits

This course will begin with an introduction to the philosophical base, a survey of different modes of inquiry. Using this philosophical base, a survey of different modes of inquiry both quantitative and qualitative will be studied using several examples from the disciplines within the College. Emphasis in the course will be placed on the students actively reading and critiquing research from a variety of disciplines as well as in developing a proposal for research study while working in interdisciplinary teams.

## EDR 3930 - Special Topics

3 Credits (Repeatable for credit)

## EDR 3980 - Independent Study

1 or 3 Credits (Repeatable for credit)

## EDR 4930 - Special Topics

1-3 Credits (Repeatable for credit)

## EDR 4970 - Action Research for Educators

1 Credit

This course introduces students to action research techniques and their application to schools. Students come to the course with a basic understanding of research methods. The course then builds on this basic understanding to focus on approaches to action research to use in schools. Students will be required to conduct an action research project. Their involvement in the action research studies and the course readings will provide the background for class discussions.

### Restrictions:

Enrollment is limited to students with a major in Education.

## EDR 4980 - Advanced Independent Study

0-3 Credits (Repeatable for credit)

## EDR 5000 - General Research Methods for Education

3 Credits

This course provides a survey of the techniques, methods and tools of research in education. Included is general discussion of the research process followed by examination of several different study designs such as observational, experimental, descriptive and sample survey. The course also provides an overview of different methods of sampling, data collection and analysis frequently used in research literature. (Offered every Fall and Summer semester)

## EDR 5100 - Intro to Inferential Stats: Ed

3 Credits

This course is a survey of basic statistical methods including descriptive statistics, z-tests and t-tests of means and proportions, chi-square analyses, correlation and regression analyses, and analysis of variance. The statistical package for the social sciences (SPSS) will also be used. (Offered every Fall and Summer semester)

**Attributes:** Aviation Elective (Graduate), Aviation Research (Graduate)

## EDR 5400 - Qualitative Research in Education

3 Credits

Students will learn the qualitative research paradigm, data collection and analysis techniques and report writing. (Offered every Spring semester)

## EDR 5500 - Evaluation of Education Programs

3 Credits

Course introduces students to program evaluation techniques and their application to schools. Builds on a basic understanding of research and evaluation processes to focus on alternative approaches to program evaluation and practical guidelines. Students will be required to conduct mini-evaluations; their involvement in these evaluations and the course reading will provide the background for seminar discussions. (Offered occasionally)

## EDR 5800 - Collaborative Action Research for Change

3 Credits

This course engages educators in using collaborative inquiry strategies to build a culture of ongoing professional development. Through a systematic inquiry process, participants will explore barriers and challenges which impact access and opportunity for all learners.

Specific inquiry strategies will include tools for observing, gathering, and analyzing multiple sources of data, collaborating with stakeholders, and reflecting on both the process and the new insights that result. Projects may focus on questions or issues at the classroom, school, or community level. (Offered in Fall)

## EDR 5930 - Special Topics

3 Credits (Repeatable for credit)

## EDR 5950 - Special Study for Exams

0 Credits (Repeatable for credit)

Special Study for Exams.

## EDR 5980 - Graduate Independent Study in Education Research

1-3 Credits

Prior permission of guiding professor required.

## EDR 5990 - Thesis Research

0-6 Credits

Research.

## EDR 6000 - Professional Writing

3 Credits

General theory of research: some emphasis on educational applications and quantitative approaches. (Offered occasionally)

**Prerequisite(s):** (EDR 5000 with a grade of C or higher or SLU Ed Research Methods with a minimum score of S); (EDR 5100 with a grade of C or higher, SLU Ed Statistics with a minimum score of S, or EDR 6100 with a grade of C or higher); (EDR 5400 with a grade of C or higher or SLU Ed Qualitative with a minimum score of S)

## EDR 6010 - Doctoral Residency

0-3 Credits

Prior permission of guiding professor.

## EDR 6060 - Research Design and Analysis

3 Credits

(Offered occasionally)

**Prerequisite(s):** (EDR 5000 with a grade of C or higher or SLU Ed Research Methods with a minimum score of S); (EDR 5100 with a grade of C or higher, SLU Ed Statistics with a minimum score of S, or EDR 6100 with a grade of C or higher)

## EDR 6070 - Evidence Based Decision Making

3 Credits

This course will introduce graduate students to the basics of educational research. It will provide an overview of basic statistical techniques which are used in educational research; the fundamentals of qualitative and quantitative educational research methodologies; designing educational research proposals; and how to read and evaluate published articles which report educational research. (Offered occasionally)

**EDR 6100 - Intermediate Applied Statistics for Education**

3 Credits

This course provides background in many applied statistical techniques. A focus of the course is to develop students' understanding of multiple techniques so that they may judge the legitimacy of statistical results in articles and choose appropriate statistical methods. Topics include effect size, ANOVA, ANCOVA, MANOVA, regression and correlation, test construction, and multiple nonparametric tests. SPSS will be utilized throughout the course. This course can be used as a final statistics course or as a bridge for those students who want to pursue more advanced courses.

**Prerequisite(s):** (EDR 5000 with a grade of C or higher or SLU Ed Research Methods with a minimum score of S); (EDR 5100 with a grade of C or higher, SLU Ed Statistics with a minimum score of S, or EDR 6100 with a grade of C or higher)

**Attributes:** Aviation Elective (Graduate), Aviation Research (Graduate)

**EDR 6150 - Single Subject Experimental Research Design**

3 Credits

This course is an advanced quantitative research course concentrating on single subject research design and analysis for educators. It is designed to prepare students to design, conduct, and evaluate research using single subject designs. An understanding of the salient features as well as the advantages and disadvantages of these research methods is provided. Students will also analyze published research that uses these methods. (Offered occasionally)

**Prerequisite(s):** (EDR 5000 with a grade of C or higher or SLU Ed Research Methods with a minimum score of S); (EDR 5100 with a grade of C or higher, SLU Ed Statistics with a minimum score of S, or EDR 6100 with a grade of C or higher)

**EDR 6250 - Topics in Advanced Quantitative Research in Education**

3 Credits (Repeatable up to 12 credits)

The primary purpose of this course is to engage in a deep study of a specific quantitative methodology in educational research. Students will explore multiple foundational theoretical constructs related to the quantitative methodology under study and practice the related data collection, analysis, and reporting skills.

**EDR 6350 - Experimental and Quasi-Experimental Designs**

3 Credits

This course will introduce various methods to assess/evaluate the effectiveness of educational or social interventions. Assessing the causal effects of educational and social policies and practices is one important aim of educational and social science research. Student will learn theories of causal inference and a toolkit of quantitative methods to enable them to make valid causal inferences, particularly in the absence of a true randomized experiment, as well as methodological assumptions and limitations for each method. Students will learn 1) randomized experimental designs, 2) instrumental variables; 3) the use of natural and quasi-experiments; 4) longitudinal methods, including interrupted time-series designs and difference-in-differences methods; 5) regression discontinuity; 6) matching estimators, including propensity score methods; and 7) fixed effects estimators.

**Prerequisite(s):** EDR 6100\* with a grade of C or higher

\* Concurrent enrollment allowed.

**EDR 6400 - Advanced Qual Research for Ed**

3 Credits

The primary purpose of this course is to provide students with the skills needed to conduct publishable qualitative research in education. Multiple qualitative methods will be used. An additional goal is to provide students with the tools or results that will be useful to them in their future work. (Offered every Fall and Summer semester)

**Prerequisite(s):** (EDR 5400 with a grade of C or higher or SLU Ed Qualitative with a minimum score of S)

**EDR 6450 - Topics in Advanced Qualitative Research in Education**

3 Credits (Repeatable up to 12 credits)

The primary purpose of this course is to engage in a deep study of a specific qualitative methodology in educational research. Students will explore multiple foundational theoretical constructs related to the qualitative methodology under study and practice the related data collection, analysis, and reporting skills.

**EDR 6500 - Multilevel Regression Models**

3 Credits

This class introduces students to how to analyze multilevel data where observations are nested within larger clusters, such as repeated measures nested within individuals, individuals nested within classrooms, and classrooms nested within schools. Advanced topics include longitudinal data analysis, discrete dependent variables, meta-analysis, and power and design considerations. (Offered in Spring in odd years)

**Prerequisite(s):** EDR 6100 with a grade of C or higher

**EDR 6600 - Designing Mixed Methods Research**

3 Credits

This course introduces students to the issues and principles of mixed methods research design, based on the collection of qualitative and quantitative data that inform one another and result in valid and credible research. Students will design a mixed methods study appropriate for proposed research questions, including a theoretical framework. Social justice will be emphasized as a framework for mixed methods projects. (Offered every Fall semester)

**Prerequisite(s):** (EDR 5000 with a grade of C or higher or SLU Ed Research Methods with a minimum score of S); (EDR 5100 with a grade of C or higher, SLU Ed Statistics with a minimum score of S, or EDR 6100 with a grade of C or higher)

**EDR 6700 - Theoretical and Conceptual Frameworks in Education Research**

3 Credits

Addresses theoretical and conceptual frameworks as a critical component in qualitative and quantitative research. Explores what counts as knowledge in educational research and how ontologies and epistemologies situate theoretical and conceptual frameworks. Students will study and then apply multiple theoretical and conceptual frameworks to witness how they impact a study.

**EDR 6930 - Special Topics**

3 Credits (Repeatable up to 12 credits)

**EDR 6950 - Special Study for Exams**

0 Credits

Special study for exams.

**EDR 6960 - Project Guidance**

0-4 Credits (Repeatable for credit)

**EDR 6970 - Advanced Research Topics in Education Research**

3 Credits

Prerequisites: EDR 5000; EDR 5100; EDR 5400.

**Prerequisite(s):** (EDR 5000 with a grade of C or higher or SLU Ed Research Methods with a minimum score of S); (EDR 5100 with a grade of C or higher, SLU Ed Statistics with a minimum score of S, or EDR 6100 with a grade of C or higher); (EDR 5400 with a grade of C or higher or SLU Ed Qualitative with a minimum score of S)

**EDR 6971 - Advanced Research Topics in Education Research**

3 Credits (Repeatable for credit)

Same as EDR 6970 except this course is for Ed.D. students.

**Restrictions:**

Enrollment limited to students in a Doctor of Education degree.

**EDR 6980 - Graduate Independent Study in Education Research**

1-3 Credits (Repeatable for credit)

Prior permission of guiding professor required.

**EDR 6990 - Dissertation Research**

0-12 Credits (Repeatable for credit)

Research.