

# EER - EDUCATIONAL EVALUATION AND RESEARCH

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## **EER 1501 Quantitative and Qualitative Methodology Cr. 3**

The rationale of quantitative methods applied to research design, sampling, instruments, and descriptive and inferential statistics via university supplied software; and qualitative methods for categorical data including nonrandom sampling, coding, and networks/displays. Applicable to all majors for solving real-world problems and defending the results. Offered Fall, Winter.

## **EER 4501 Quantitative and Qualitative Research, Measurement, and Program Evaluation Cr. 3**

Provides an introduction to systematic disciplined inquiry and program evaluation. Topics in quantitative methods to be covered include : experimental, quasi-experimental, and survey research; instrument reliability and validity; descriptive and inferential statistics. Topics in qualitative methods to be covered include: grounded theory, ethnography, case study; trustworthiness, coding, and data networks/displays. Offered Fall, Winter.

## **EER 7410 Introduction to Program Evaluation Cr. 1**

Introduces the fundamental processes of evaluation: clarification, design, implementation, and evaluation. Consists of lectures from the instructor of record and guest lectures from program faculty introducing the fundamentals of program evaluation and materials covered in-depth throughout the program. Offered Fall.

**Restriction(s):** Enrollment is limited to Graduate level students.

## **EER 7420 Culturally Responsive Program Evaluation Cr. 3**

Examines ethical practice responsive to stakeholder rights, needs, and values tied to cultural contexts and the relevance of cultural practices as it pertains to ethical decision making in project design. Students will create and evaluate ethically produced project design goals by engaging with and in the methods of social science research. Offered Fall.

**Restriction(s):** Enrollment is limited to Graduate level students.

## **EER 7430 Organizational Theory for Evaluation Cr. 3**

Designing, implementing, and evaluating a program through an understanding of the stakeholders making up an organization and their interact among themselves. Breaks down the fundamentals of organizational theory in the context of program evaluation to better determine whether or not a project is well designed and implemented, whether or not it meets the diverse needs of and adheres to the values of stakeholders. Offered Winter.

**Restriction(s):** Enrollment is limited to Graduate level students.

## **EER 7610 Evaluation and Measurement Cr. 2-3**

Principles and practices of evaluation and measurement with special focus on behavioral goals. Informal and formal evaluational strategies. Problems of self-evaluation. Logical, philosophical, and linguistic problems of evaluational methods and devices. Metrical analyses and standards. Innovations in educational assessment and accountability. Teacher-made tests. Offered Every Term.

**Restriction(s):** Enrollment is limited to Graduate level students.

## **EER 7630 Fundamentals of Statistics Cr. 3**

Review of mathematics essential for statistics, sampling, computer use. Basic patterns of statistical inference, confidence estimation and significance testing regarding measures of averages, dispersion, correlation, and selected non-parametric statistics. One-way and two-way analysis of variance. Offered Every Term.

**Restriction(s):** Enrollment is limited to Graduate level students.

## **EER 7640 Fundamentals of Quantitative Research Cr. 3**

Basic skills in educational research; nomenclature, problem, theory, hypothesis formulation; bibliographical and documentary techniques; retrieval systems; development of data-gathering instrumentation; computer orientation and research uses; collection and organization of data; manuscript development; report writing; techniques, methodologies for descriptive and experimental inquiry. Offered Every Term.

**Restriction(s):** Enrollment is limited to Graduate level students.

## **EER 7650 Computer Use in Research Cr. 3**

Introduction to computer use in educational research with emphasis on using statistical packages (MIDAS and SPSS, BASIC programming language); writing statistical programs. Offered Every Term.

**Prerequisite:** EER 7630 with a minimum grade of C

**Restriction(s):** Enrollment is limited to Graduate level students.

## **EER 7870 Qualitative Research I: Introduction Cr. 3**

Explores frameworks that inform what knowledge is and how it is produced. Review of validity, reliability, positionality, and ethics in qualitative research. Overview of major research designs (ethnography, grounded theory, phenomenology, case study, and narrative analysis). Offered Fall, Winter.

**Restriction(s):** Enrollment is limited to Graduate level students.

## **EER 7880 Fundamentals of Ethnographic Research Cr. 3**

Collecting, analyzing, and writing up findings from ethnographic data (participant-observation field notes, interviews, and artifacts); issues of rigor in naturalistic research in education. Offered Fall, Winter.

**Prerequisite:** EER 7870 with a minimum grade of C

**Restriction(s):** Enrollment is limited to Graduate level students.

## **EER 7910 Qualitative Methods for Diversity and Inclusion Cr. 3**

Explores qualitative methodologies at the intersection of diversity and inclusion. Includes readings that address qualitative methodologies and theories that relate to race, ethnicity, gender, sexuality, dis/ability, age, class, language, and other aspects of diversity and inclusion. Examines the role of global communities in qualitative research. Offered Fall.

**Prerequisite:** EER 7870 with a minimum grade of C

**Restriction(s):** Enrollment is limited to Graduate level students.

## **EER 7920 Qualitative Methods for Community and Classroom Research Cr. 3**

Explores qualitative methodologies for community research in local contexts. Examines principles of, and considerations for, place-based research in nearby communities. Designs a community-based research project, includes a focus on participatory action research, and examines the role of local communities in qualitative research. Offered Winter.

**Prerequisite:** EER 7870 with a minimum grade of C

**Restriction(s):** Enrollment is limited to Graduate level students.

## **EER 8520 Qualitative Research II: Design and Data Collection Cr. 3**

Examines approaches to qualitative data collection (interviews, focus groups, observations, documents, text, sound, video, and images). Readings in, and applications of, major qualitative research designs (ethnography, grounded theory, phenomenology, case study, narrative, and visual analysis). Offered Fall.

**Prerequisite:** EER 7870 with a minimum grade of C

**Restriction(s):** Enrollment is limited to Graduate level students.

## **EER 8530 Qualitative Research III: Data Analysis and Reporting Cr. 3**

Examines approaches to qualitative data analysis and computer assisted qualitative data analysis software (CAQDAS). Readings in, and applications of, major forms of qualitative data analysis (ethnography, grounded theory, phenomenology, case study, narrative, and visual analysis). Also addresses discourse analysis and theoretical analysis. Offered Winter.

**Prerequisite:** EER 8520 with a minimum grade of C

**Restriction(s):** Enrollment is limited to Graduate level students.

**EER 8550 Advanced Qualitative Inquiry: Innovations in Theory Cr. 3**

Explores contemporary developments in theories of qualitative research. Examines recent theories in education and social sciences research and connects theory with methodological practice. Develops approaches to research design that are grounded in theoretical frameworks. Offered Fall.

**Prerequisite:** EER 8530 with a minimum grade of C

**Restriction(s):** Enrollment is limited to Graduate level students.

**EER 8560 Advanced Qualitative Inquiry: Innovations in Practice Cr. 3**

Explores contemporary developments in the practice of qualitative research, and situates recent trends within historical developments in the field. Offered Winter.

**Prerequisite:** EER 8550 with a minimum grade of C

**Restriction(s):** Enrollment is limited to Graduate level students.

**EER 8700 Advanced Qualitative Program Evaluation Cr. 3**

Create criteria for needs, standards and performances by assembling qualitative data on the activity, aspirations, problems, and accomplishments of stakeholders of a given program. Evaluation is presented as a process of decision making. Students will be able to practice and produce evaluations as a process specific to a particular program situation. Offered Fall.

**Prerequisite:** EER 7870 with a minimum grade of C

**Restriction(s):** Enrollment is limited to Graduate level students.

**EER 8710 Advanced Ethnographic Research Cr. 4**

Use of fieldwork to learn group interview, video collection and analysis, ethnographic survey, narrative and poetic analysis; deepening the understandings about culturally-sensitive research, rigor, and the politics of representation. Offered Winter.

**Prerequisite:** EER 7880 with a minimum grade of C

**Restriction(s):** Enrollment is limited to Graduate level students.

**EER 8720 Advanced Quantitative Program Evaluation Cr. 3**

Educational and school program evaluation: alternative approaches; students propose theory-based designs and strategies. Offered Winter.

**Restriction(s):** Enrollment is limited to Graduate level students.

**EER 8760 Advanced Measurement I Cr. 3**

Classical measurement theory including scaling, measurement error, reliability, validity. Review of strong statistics versus weak measurement debate. Empirical methods of psychometric applications in education and educational psychology. Offered Yearly.

**Prerequisite:** EER 7610 with a minimum grade of C

**Restriction(s):** Enrollment is limited to Graduate level students.

**EER 8770 Advanced Measurement II Cr. 4**

Modern measurement theory. Item response theory, including one and three parameter models, detecting item bias, multi-dimensional scaling. Offered Winter.

**Prerequisite:** EER 8760 with a minimum grade of C

**Restriction(s):** Enrollment is limited to Graduate level students.

**EER 8800 Variance and Covariance Analysis Cr. 4**

Multiple, partial, canonical correlation: variance and covariance analysis; Models I and II. Statistical analysis in experimental designs; Random Blocks, Latin Squares, Greco-Latin Squares, simple and complex factorials, confounding, fractional and split-plot designs. Supporting topics and techniques; missing observations; adjustment of means; probing the homogeneity of means and variances; study of contrasts; orthogonal polynomials and computer usage. Offered Yearly.

**Prerequisite:** EER 7630 with a minimum grade of B

**Restriction(s):** Enrollment is limited to Graduate level students.

**EER 8820 Multivariate Analysis Cr. 4**

Discriminant analysis, profile analysis; placement and classification problems; component and factor analysis. Supporting topics and techniques; transformation of variables, computer usage. Offered Yearly.

**Prerequisite:** EER 8800 with a minimum grade of C

**Restriction(s):** Enrollment is limited to Graduate level students.

**EER 8840 Structural Equation Modeling Cr. 4**

Application of structural equation methods to applied educational psychology research. Model specification, estimation, and fit.

Confirmatory factor analysis and correlation. Offered Yearly.

**Prerequisite:** EER 8820 with a minimum grade of C

**Restriction(s):** Enrollment is limited to Graduate level students.

**EER 8860 Nonparametric, Permutation, Exact, and Robust Methods Cr. 4**

Application of nonparametric, permutation, exact and robust methods to social and behavioral science data. Techniques of estimation, location, and association for discrete and continuous data. Offered Fall, Winter.

**Prerequisite:** EER 7630 with a minimum grade of C and EER 8800 with a minimum grade of C

**Restriction(s):** Enrollment is limited to Graduate level students.

**EER 8880 Monte Carlo Methods Cr. 1**

FORTTRAN 77/90/95 applied to Monte Carlo Methods for the development of new statistics and procedures and the comparison of existing methodologies. Solving data analysis problems via simulation techniques. Offered Fall, Winter.

**Prerequisite:** EER 7630 with a minimum grade of C and EER 8800 with a minimum grade of C

**Restriction(s):** Enrollment is limited to Graduate level students.

**EER 8900 Qualitative Design for School Research Cr. 3**

Field Placement. Integration of theory with practice for conducting, analyzing, and reporting qualitative research or evaluation in the schools. Offered Fall.

**Prerequisite:** EER 8700 with a minimum grade of C or EER 8710 with a minimum grade of C

**Restriction(s):** Enrollment is limited to Graduate level students.

**EER 8910 Practicum in Evaluation Cr. 3**

Offers practical experience for evaluation practitioners in clarification, design, implementation, and evaluation. Students will conduct an authentic evaluation using both qualitative and quantitative methodology to demonstrate mastery of the fundamentals of program evaluation and develop specific areas of expertise. Offered Spring/Summer.

**Prerequisite:** EER 8700 with a minimum grade of C and EER 8720 with a minimum grade of C

**Restriction(s):** Enrollment is limited to Graduate level students.

**EER 8992 Research and Experimental Design Cr. 3-4**

Design of empirical research for students possessing basic knowledge of statistics. Topics include hypothesis construction, sampling theory, experimental and quasi-experimental designs, selection of statistical procedure, and construction of data gathering instruments. Offered Fall, Winter.

**Prerequisite:** EER 7630 with a minimum grade of C

**Restriction(s):** Enrollment is limited to Graduate level students.