

Educational Research (EFR)

Courses

EFR 500. Introduction to the Foundations of Education. 3 Credits.

A problem-centered class dialogue on those philosophical, social, political and historical concepts of educational thought that have shaped the development of the learning experience. F,S,SS.

EFR 501. Psychological Foundations of Education. 3 Credits.

A study of the learning process with secondary emphasis on how the learning process is affected by individual differences, growth and development, and personality. A background in undergraduate Educational Psychology is assumed. Both theories of learning and theories of instruction are considered. SS.

EFR 502. Issues and Trends in Education. 3 Credits.

Examination of contemporary issues of pre-K-12 and higher education and some of the philosophical, political, social, and historical foundations which influence their development. Students will engage in public scholarship through issue advocacy projects. On demand.

EFR 503. History of American Education Policy and Reform. 3 Credits.

This course will explore major developments in the history of American education reform and policy. Students will consider the changing role and growing importance of public schools as social institutions, the different ways groups have sought to use schools to solve social problems, and how different generations of Americans have turned to education to define citizenship and merit, teach values, and assert and contest power. Present-day schools, policy debates, and reform initiatives are an outgrowth of this history. Throughout the course, students will identify salient moments of continuity and change in an attempt to make this past usable. On demand.

EFR 504. Philosophical Foundations of Education. 3 Credits.

A study of the representative schools of thought which have structured major philosophies of education. Prerequisite: EFR 500 or consent of instructor.

EFR 505. Educational Equity and Social Change in Schooling. 3 Credits.

Students will study how education, and specifically schooling, has shifted with changing social and cultural conditions; and in response how schooling has been used as a means to assert social control over students and communities. Students will learn how schools are a place where inequitable social structures are both reproduced and can also be reformed. Students' final product demonstrates an application of these understandings related to a specific educational organization in the creation of a collaborative, action-oriented, product that reflects the goals of social change. On demand.

EFR 506. Multicultural Education. 3 Credits.

A review of the conceptual, historical and theoretical aspects of multicultural education. A major goal will be to provide educators with processes for incorporating multicultural education into educational environments; to meet the needs of culturally diverse students and to increase the cultural awareness and sensitivity of all students. North Dakota/Native American issues are primary elements of this course. On demand.

EFR 507. Gender, Education and the Environment. 3 Credits.

A critical feminist analysis of the history, philosophy, and curricular theories used within ecological, environmental, and sustainability education. The roles of educators, students, society, biology, and policy are considered. S, even years.

EFR 508. Advanced Ethnographic Methodology: Inquiry into Culture. 3 Credits.

This course introduces the central concepts and methods employed by cultural anthropologists in the study of educational processes. Students will explore Ethnography as a unique form of field work and develop awareness and competency in viewing education Ethnographically. Education in this context is understood as more than just formalized and institutional systems of schooling. Students will survey the historical and comparative perspectives which help distinguish between "education" and "schooling" as a form of cultural transmission, while examining issues of ethnicity, social reproduction and disjuncture, the importance of place, globalization and perceptions of modernity all within the context of education. On demand.

EFR 509. Introduction to Applied Educational Research. 3 Credits.

An introduction to applied research methodologies used to study education. The course covers quantitative as well as qualitative types of research. The paradigms of both types of research will be contrasted and the application of the methodologies in actual research investigated. F,S,SS.

EFR 510. Becoming a qualitative researcher: techniques, skills and practical methods. 3 Credits.

Qualitative researchers engage in systematic inquiry and direct collaboration with individuals and communities to explore highly contextualized phenomenon with the purpose of action or change. Qualitative methods are naturalistic, highly contextual, participatory and relational. Exploring the lived experiences and perspective of others requires attention to relationships, rapport and trust among all participants. From justice-centered and critical perspectives, this course introduces students to qualitative research methods in the social sciences to equip them with the skills for conducting qualitative research. Students will learn fundamental participatory methods of data collection including observations, interviewing, focus groups, as well as data analysis and writing up qualitative findings. F,S,SS.

EFR 511. Program and Policy Evaluation. 3 Credits.

An interdisciplinary course which studies the theoretical models of program and policy evaluation as well as professional standards. Emphasis is on the analysis of models for implementation and application in various social and public policy fields, as well as education. On demand.

EFR 512. Survey Design and Analysis. 3 Credits.

An introduction to designing surveys for social science research with an emphasis on educational settings. Students gain theory and skills in survey construction, data collection, and data analysis. S, even years.

EFR 513. Large Dataset Management and Analysis. 3 Credits.

A study of educational and social science statistics involving gathering, managing, manipulation and analysis of large data sets, both local and national, using R. On demand.

EFR 514. Advanced Textual Analysis. 3 Credits.

In this advanced research seminar, students will learn about and conduct a variety of textual analyses including document analysis, archival research, content analysis and narrative inquiry. Researchers across the academy employ textual analysis methodologies and define "documents" in broad terms. Over the semester, students will examine these various approaches, learn about the value of texts, and conduct their own research. On demand.

EFR 515. Statistics I. 3 Credits.

An introduction to basic statistical methods, focusing primarily on descriptive statistics and inferential statistics up to and including two-way analysis of variance.

EFR 516. Statistics II. 3 Credits.

An in-depth study of inferential statistics with primary emphasis on analysis of variance models, multiple regression techniques, analysis of covariance and other higher-order statistical procedures. Prerequisite: EFR 515 or consent of instructor. S,SS.

EFR 517. Advanced Research Methodologies. 3 Credits.

Both qualitative and quantitative aspects of research are considered for a variety of topics, including ethics in research, use of data banks, Q-methodology, survey research, Bayesian concepts, critical theory, longitudinal research and research consultation. Comprehensive examinations in educational research are addressed. This is a capstone course in educational research. Previous or concurrent involvement in research is highly desirable. Available for doctoral level students only.

EFR 518. Multivariate Analysis. 3 Credits.

Multiple regression in generalized problem solving; discriminant analysis, factor analysis, multivariate analysis, canonical analysis, and multivariate analysis of covariance. Students are encouraged to analyze their own data including student-generated computer applications.

EFR 519. Research Seminar. 1-4 Credits.

Experimental Design--An in-depth treatment of analysis of variance designs including factorial designs, treatment by subjects designs, groups within treatment designs, latin squares, higher dimensional designs, mixed effect designs, analysis of covariance, and trend analysis. Emphasis is placed on underlying linear models. Other seminars are held on specific research topics, particularly research proposals. May be repeated. Repeatable.

EFR 520. Designing the Qualitative Study: Advanced Methodologies. 3 Credits.

In this course, students will learn about and engage with advanced qualitative research methodologies that enable a nuanced and deep contextual understanding of social phenomena. Students will gain foundational knowledge in phenomenology, grounded theory, narrative, and ethnographic designs. Students learn how to blend components of these designs to ensure inquiries are relevant, with the intent of disseminating knowledge to the people who can use it. Knowledge about ethical research practices, including IRB requirements will also be addressed. S.

EFR 522. Mixed-Methods Research. 3 Credits.

Mixed-methods research is the practice of combining quantitative and qualitative analysis within a single study. Students will learn the history and conceptual underpinnings of this methodological practice, read exemplary empirical studies that use mixed-methods, and explore the major mixed-methods designs. To apply these understandings, students will conduct a mixed-methods study on a topic of their own interests. Prerequisite: EFR 510 and EFR 516, or consent of instructor. S.

EFR 523. Structural Equation Modeling. 3 Credits.

This course builds from analyses underpinning structural equation modeling (SEM), such as reliability, exploratory factor analysis, and multiple regression, to SEM topics including path analysis, model specification and identification, goodness of fit, confirmatory factor analysis, structural models, mediation, multiple group invariance testing, and more. To apply these lessons, students will gain skills using SEM software. Prerequisite: EFR 516 or permission of the Instructor. On demand.

EFR 524. Needs Assessment. 3 Credits.

Needs assessment is a common evaluation method. This interdisciplinary course will study the concept of needs as well as the processes and techniques of conducting needs assessment. A set of techniques for implementation and application of needs assessment in various community, education, social work, public health, business/industry settings, government, and non-profit agencies will be reviewed. F.

EFR 525. International and Comparative Education. 3 Credits.

An overview of the major issues, concepts and methods of comparative and international education. Focuses on the development of the field, the uses of comparison, the impact of globalization, and policy and practice development around the world at all levels of education. Prerequisite: EFR 500 or consent of instructor.

EFR 527. Education Policy: Theories & Research. 3 Credits.

In this course, students will explore the theories, approaches and methodologies that undergird policy research on all levels of education. Students will explore various education debates and the reforms, practices and policies that stem from them. Students will consider the role of policy as a pathway or barrier to social justice and the various ways researchers study and engage with policy. On demand.

EFR 530. Learning Analytics. 3 Credits.

Learning analytics is the collection, management, analysis, and reporting of meaningful patterns in data about learners, aimed at optimizing learning and the environments in which it occurs. This course will provide students with the building blocks of learning analytics, including history, concepts and theories, question development, common data sources, tools and techniques, challenges, ethics, applications, case studies, and presenting to educational audiences for decision-making. F, even years.

EFR 535. Data Analytics and Visualization with R. 3 Credits.

R is an increasingly popular, open-source programming language with powerful packages for data analytics and visualization. In this course, students will first master the fundamentals of R, including installation, programming techniques, reading data files, and basic statistics. The fundamentals of data visualization will then be covered, such as theory, applications, and examples. Finally, students will develop skills in data visualization techniques using R packages. Prerequisite or Corequisite: EFR 515 or equivalent. S, even years.

EFR 584. Internship in Educational Research. 1-8 Credits.

Practical experience in the conduct of educational research, analyzing data, and writing reports. Available for doctoral level students only. May be repeated. Prerequisite: Appropriate coursework in educational research and consent of the adviser and department chair. Repeatable.

EFR 590. Special Topics in Education. 1-4 Credits.

Exploration of special topics in the study of education not regularly included in available course offerings. May be repeated for different topics. Prerequisite: Consent of instructor or advisor. Repeatable.

EFR 591. Readings in Education. 1-4 Credits.

Designed primarily for advanced graduate students. May be repeated for different topics. Prerequisite: Consent of instructor or advisor. Repeatable.

EFR 592. Individual Research in Education. 1-4 Credits.

May be repeated. Prerequisite: Consent of instructor or advisor. Repeatable.

EFR 995. Scholarly Project. 2-3 Credits.

The scholarly project demonstrates critical analysis and application of information and experiences gained throughout the program of study. The project allows students to demonstrate scholarly skills in an integrated manner. The scholarly project must be approved by the student's adviser. Prerequisite: Consent of the student's advisor. S/U grading. On demand.

EFR 996. Continuing Enrollment. 1-12 Credits.

Repeatable. S/U grading.

EFR 997. Independent Study M Ed & M S. 2 Credits.

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EFR 998. Thesis. 1-9 Credits.

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EFR 999. Dissertation. 1-15 Credits.

Repeatable to 15.00 credits.