

Electives

Certificate in Type 2 Translational Research

To fulfill the eight-to-nine hours of elective requirements, students must take one course from each of the following areas.

1. Working with Communities
2. Quantitative Research Methods Relevant to T2TR
3. Qualitative Research Methods Relevant to T2TR

At least one of the elective courses must be from outside your major. Your Certificate Advisor can help you choose courses that qualify as elective credit. See a list of suggested elective courses below.

Integrated courses. Some courses suggested for elective credit cover a combination of quantitative and qualitative research methods. (See section 4 of the list of suggested electives below.) To fulfill course requirements in the areas of both “Quantitative” and “Qualitative Research Methods Relevant to T2TR,” students must complete one of each type of course or one integrated Quantitative/Qualitative course and an additional course from either the “Quantitative” or “Qualitative Research Methods Relevant to T2TR.”

Proposing an alternative elective course. You may propose to your Certificate Advisor a pertinent course for consideration as elective credit, including a course that fulfills a requirement for your degree program. The criteria for a course to be considered as fulfilling a Certificate elective requirement include the following.

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1. The course is a graduate-level course.
 2. The course includes substantial/significant content related to the elective requirement it is proposed to fulfill.

Working with Communities

Course learning objectives and content must address:

- understanding organizations in which research occurs,
- how to work with organizations, and
- the various ways ‘community’ can be conceptualized and why that matters.

Quantitative Research Methods Relevant to T2TR

Course learning objectives and content must be relevant to research in communities or organizations. Ideally, the course might also address research methodologies that take account of organizational culture and values, that are responsive to community partners’ priorities, or that have a direct benefit to the partner.

Qualitative Research Methods Relevant to T2TR

Course learning objectives and content must be relevant to research in communities or organizations. Ideally, the course might also address research methodologies that take account of organizational culture and values, that are responsive to community partners’ priorities, or that have a direct benefit to the partner.

3. The course syllabus must be available to your Certificate Advisor for review. Additional documentation or information may accompany requests for approval. In some cases your advisor might request a review of the course by the Certificate Advisory Committee. Please allow an additional four-to-five weeks for this approval process.
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Proposing a completed course. Subject to approval by your Certificate Advisor, a pertinent course you have taken to fulfill a requirement for your degree may be counted as a Certificate elective course. The criteria above will be used by the Certificate Advisor to determine whether the course can be considered as fulfilling a Certificate elective requirement.

Suggested Electives

The following list of elective suggestions is organized into four categories:

1. Working with Communities
2. Quantitative Research Methods Relevant to Type 2 Translational Research
3. Qualitative Research Methods Relevant to Type 2 Translational Research
4. Integrated Quantitative and Qualitative Methods Relevant to Type 2 Translational Research

IMPORTANT: The list below represents applicable courses in the *UW Madison 2008–9 Graduate Catalog*. Refer to the current timetable at http://registrar.wisc.edu/course_source.php for actual times and availability. If you would like to take a class that is already full or for which you do not meet the pre-requisites, contact the course instructor to inquire about the possibility of an exception.

1. Working with Communities

| Chicana/o and Latina/o Studies | |
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| CHICLA 657: Understanding Latino Families and Communities (Crosslisted with Soc Work) | 3 credits Examines U.S. Latino families and communities, including social and economic conditions, cultural values, and issues of identity, race, gender, discrimination, acculturation and language. A service-learning course, students gain knowledge of and direct experience with social work issues in Latino communities. Prerequisites: Jr st. |
| Human Development and Family Studies | |
| HDFS 872: Bridging the Gap between Research and Action | 3 credits Addresses the critical skills and methods needed to gather and apply research-based knowledge and theory to human development and family studies. Strategies for conducting research relevant to social policy, programs, and the general public will be discussed as well as techniques for communicating research. Prerequisites: Grad st & at least one crse each in rsch methods & grad level stats. |
| HDFS 880: Prevention Science (Crosslisted with Ed Psych, Nursing, Soc Work) | 3 credits This course provides a theoretical, empirical and practical foundation for prevention science as it relates to the prevention of human social problems. Research and evaluation methods, program design strategies, best practices and policy as they relate to the field of prevention are also examined. Prerequisites: 2nd yr Grad st or cons inst. |
| Industrial and Systems Engineering | |
| ISYE 417: Health Systems Engineering | 3 credits Introduction to the application of industrial engineering methods to the analysis and improvement of health care delivery. Examination of social, regulatory and economic factors unique to health care. Prerequisites: IE 313, 320, 323 & 349, or cons inst. |
| ISYE 703: Quality of Health Care (Crosslisted with POP HLTH 703) | 3 credits The objectives of this course are: 1) To review the conceptualization and measurement of quality of health care and patient safety; 2) To illustrate basic concepts and methods in quality improvement as applied to current issues in health care; 3) To understand the diverse perspectives that can be used to address quality and safety issues in different health care organizations. Prerequisites: No formal prerequisites, but instructor consent is required to enroll |
| Nursing | |
| NURSING 702: Health Promotion and Disease Prevention in Diverse Communities | 3 credits Multidisciplinary approach for health promotion/disease prevention in diverse communities emphasizing the use of epidemiological psychosocial, and environmental data for aggregate/community assessment to determine shared risks, exposures, behaviors and interventions. Prerequisites: Grad st. |

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| NURSING 761: Health Program Planning, Evaluation and Quality Improvement | 3 credits Provides content in theory, concepts, and methods of program planning and evaluation in the context of health care and community health organizations. Provides basic concept related to designing and implementing health services quality improvement projects. Prerequisites: Grad st or cons inst. |
| Obstetrics and Gynecology | |
| OBGYN 875: Community Based Participatory Research | 2 credits The purpose of this course is to provide interested graduate, post-graduate students, academic and community researchers with basic knowledge about what CBPR is and how it can be used. In addition, the course will emphasize the development of communication and research skills to support successful participants' implementation of CBPR approaches to their own work. |
| Pharmacy | |
| S&A PHM 652: Pharmacist Communication: Educational and Behavioral Interventions | 2 credits Intermediate principles of pharmacist communication with patients and other care givers; weekly communications laboratory provides opportunity to refine skills in listening, interviewing, counseling, and use of various educational and behavioral strategies to improve drug use. Prerequisites: DPM-3 st & S&A Phm 411 |
| S&A PHM 714: Social Organization of Pharmacy | 3 credits Examination of theories, methodologies, and research related to social organization of the profession and practice of pharmacy, the pharmaceutical industry, pharmaceutical regulation, and national/international pharmacy sectors. Prerequisites: Grad st or cons inst. |
| Population Health Sciences | |
| POP HLTH 703: Quality of Health Care (Crosslisted with ISyE 703) | 3 credits The objectives of this course are: 1) To review the conceptualization and measurement of quality of health care and patient safety; 2) To illustrate basic concepts and methods in quality improvement as applied to current issues in health care; 3) To understand the diverse perspectives that can be used to address quality and safety issues in different health care organizations. Prerequisites: No formal prerequisites, but instructor consent is required to enroll |
| POP HLTH 780: Public Health: Principles and Practice | 3 credits An interdisciplinary graduate-level course addressing population-based approaches to community health improvement, and features problem-based learning. A focus on contemporary issues; opportunities to work with a public health mentor and lectures by local, state and national figures. Prerequisites: Enrollment in the Master of Public Health (MPH) program at UW-Madison, Grad st, or cons inst. |
| Sociology | |
| SOC 573: Community Organization and Change (Crosslisted with Soc) | 3 credits Examines theories of community change and different models of community organizing. Prerequisites: Intro soc or cons inst. |
| SOC 617: Community Development (Crosslisted with Soc, Urb R PI) | 3 credits Social, cultural and personality factors influencing community development, with reference to developing countries as well as contemporary rural communities; consideration of theoretical and operational issues. Prerequisites: Jr st, intro course in sociology or cons inst. |
| Urban and Regional Planning | |
| URB R PLAN 705: Community Building, Action and Learning: Leadership Dynamics (Crosslisted with Inter-HE, Elpa) | 2 credits Examines community building and collaborative action in the context of efforts to renew community connections in today's fragmented localities. Gives special emphasis to leadership roles and dynamics and especially shared leadership. Applies a model of the learning community to these challenges. |

2. Quantitative Methods Relevant to Type 2 Translational Research

| Management/Business | |
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| MHR 835: Research Methods in Management I | <p>3 credits</p> <p>Introduces graduate students to the quantitative methods that are used to address a wide variety of research questions in organizational studies. The course is organized around a model of research that illustrates the role of causal relationships in research and distinguishes between conceptual and measurement levels. We address various aspects of measurement (e.g., levels of measurement, reliability, and construct validity), design (e.g., design characteristics for experiments, quasi-experiments, field studies and surveys; challenges to valid inferences from designs), analysis (e.g., sampling distributions, statistical hypothesis testing, statistical power, confidence intervals), and research report writing/presentation. It is assumed that students enter the course with knowledge of introductory statistics.</p> <p>Prerequisites: MHR 700 & Gen Bus 704 or equivalent</p> |
| Curriculum and Instruction | |
| CURRIC 715: Design of Research in Curriculum and Instruction | <p>3 credits</p> <p>Introductory survey of empirical foundations of research. Development of methods and tools of research.</p> <p>Prerequisites: Grad st & cons inst.</p> |
| Educational Psychology | |
| ED PSYCH 762: Introduction to the Design of Educational Experiments | <p>3 credits</p> <p>Classical experimental designs and their application to educational research, factorial treatment arrangements, confounding, repeated measures design, and related topics.</p> <p>Prerequisites: Ed Psych 760, 761.</p> |
| ED PSYCH 763: The Design and Analysis of Research in Educational Psychology | <p>3 credits</p> <p>Various techniques. Methodology and data analysis with emphasis on verbal interpretation.</p> <p>Prerequisites: Ed Psych 762.</p> |
| ED PSYCH 861: Statistical Analysis and Design in Educational Research | <p>3 credits</p> <p>A non-parametric perspective of classical experimental designs and their application to educational research, factorial treatment arrangements, repeated measures designs, and related topics.</p> <p>Prerequisites: Ed Psych 760 or equiv.</p> |
| Industrial and Systems Engineering | |
| ISYE 610: Design of Program Evaluation Systems | <p>3 credits</p> <p>Design of systems for evaluating the effectiveness (efficiency, benefits, costs, resource utilization, contribution) of socio-technical systems. Measurement, analysis and interpretation of results including implications for engineering research. Extensive case studies.</p> <p>Prerequisites: Senior or grad student in industrial engineering or consent of instructor</p> |
| LaFollette School of Public Affairs | |
| PUB AFFR 818: Quantitative Tools for Public Policy Analysis | <p>3 credits</p> <p>This course provides an introduction to the statistical methods used in public policy. The course will cover the basics of probability, statistics, and quantitative methods in public policy analysis. The course stresses interpretation and presentation of data as well as theory.</p> <p>Prerequisites: Grad st.</p> |
| PUB AFFR 819: Quantitative Methods for Public Policy | <p>3 credits</p> <p>A review of intermediate statistics, and an introduction to analytical, quantitative and computer techniques applicable to the analysis of public policy.</p> <p>Prerequisites: Grad st & Pub Affr 818 or equiv, or cons inst.</p> |
| PUB AFFR 871: Public Program Evaluation | <p>3 credits</p> <p>Compares the conceptual, statistical, and ethical issues of experimental, quasi-experimental and non-experimental designs for program evaluation. Definitions of outcomes, sample size issues, statistical biases in measuring causal effects of programs, and the reliability of findings will be emphasized using case studies selected from current public programs.</p> <p>Prerequisites: Grad st & Pub Affr 818 or equiv, or cons inst.</p> |

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| Nursing | |
| NURSING 700: Nursing Research I | 3 credits Techniques of data analysis, research design, tabulation and statistical computation, scale construction, coding and computer processing of data in nursing research. Prerequisites: Grad st or cons inst. |
| Pharmacy | |
| S&A PHM 711: Evaluation of Pharmaceutical Services, Programs and Policies | 3 credits Development of skills in the methods, techniques, and problems encountered in conducting evaluations of pharmaceutical services, programs, and policies. Prerequisites: Grad st or cons inst. |
| Population Health Sciences | |
| POP HLTH 796: Introduction to Health Services Research | 3 credits Introduces students to a variety of perspectives, substantive areas and methodological approaches to health services research that provide the foundation for understanding the structure, process and outcomes of the U.S. health care system. Prerequisites: Grad stdt in population health & Prev Med 795; or cons inst. |
| POP HLTH 800: Quantitative Methods in Population Health | 3 credits Topics include: Rates and risks, classical analysis techniques for epidemiologic studies, ordinary and logistic regression. Prerequisites: Grad stdt in population health and Stat 541 or equiv; or cons inst. |
| POP HLTH 876: Measuring Health Outcomes | 3 credits Provides a comprehensive understanding of health outcome measures, including generic health status measures, disease-specific measures, and consumer reports of the quality of care. Prerequisites: Grad stdt in population health & Prev Med 795, 797 & 800; or cons inst. |
| POP HLTH 900: Quantitative Methods in Population Health II | 3 credits Principles and applications of regression analysis of observational data with unequal variance, unequal sampling weights, missing observations, correlation between observations and non-normally distributed outcomes, and related statistical methods in population health. Examples use data sets from ongoing population health research. Prerequisites: Grad stdt in population health & Prev Med 795,797, 798, & 800; or cons inst. |
| Social Work | |
| SOC WORK 650: Methods of Social Work Research | 2-3 credits Social research and problems of project design and programming. Distinctive characteristics of investigations directed to planning, administrative, and scientific objectives. Prerequisites: Jr st, stat requirement filled, soc welfare major, BSW or MSW stdts. |
| SOC WORK 721: Methods of Planning Analysis (Crosslisted with Urb R PI) | 3 credits Research methods and statistics used in analyzing planning problems: conceptualization, design, and implementation of planning research; statistical methods for analyzing data including review of inferential statistics, analysis of variance, correlation, and multiple regression; use of computer; review of sources of planning data. Prerequisites: Grad st. |
| Sociology | |
| SOC 544: Introduction to Survey Research (Crosslisted with Journ, Poli Sci, Urb R PI) | 3 credits Theory and practice of survey research; planning, sampling, questionnaire construction, interviewing, content analysis, machine tabulation, analysis of data; two hours lecture; two hours lab or field work. Prerequisites: Jr st. |
| SOC 751: Survey Methods for Social Research | 3 credits Theoretical and practical issues involved in the design of surveys and their components. Students apply knowledge of survey research techniques to a specific and complete research project. Prerequisites: Grad st and Soc 361 or equiv. |

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| SOC 752: Measurement and Questionnaires for Survey Research | 3 credits Analysis and presentation of survey results through contingency table analysis. Techniques for assessing the quality of data produced by survey methods. Practical application of course material to a specific research problem through research reports and other exercises involving data analysis on a topic of the student's choice. Prerequisites: Soc 751 or permission of inst. |
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Urban and Regional Planning

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| URB R PLAN 721: Methods of Planning Analysis (Crosslisted with Soc Work) | 3 credits Research methods and statistics used in analyzing planning problems: conceptualization, design, and implementation of planning research; statistical methods for analyzing data including review of inferential statistics, analysis of variance, correlation, and multiple regression; use of computer; review of sources of planning data. Prerequisites: Grad st. |
| URB R PLAN 955: Practical Research Design and Methods of Empirical Inquiry (Crosslisted with DS, Forest) | 3 credits Provides a practical introduction to basic concepts of research question formulation, research designs and alternative methods of inquiry, implications for internal validity of the research and generalizability of the findings, operational definitions and measurement validity, reliability, utility and precision. Prerequisites: Grad st |

3. Qualitative Methods Relevant to Type 2 Translational Research

Anthropology

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| ANTHRO 909: Research Methods and Research Design in Cultural Anthropology | 3 credits Theoretical and practical aspects of ethnographic research; history of field research in anthropology; research design issues; writing proposals; the fieldwork experience; methods of field data collection; ethical issues; data interpretation and analysis; writing ethnography. Prerequisites: Grad st or cons inst. |
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Curriculum and Instruction

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| C&I 717: Introduction to Qualitative Research | 3 credits Provides an overview of qualitative inquiry, examining assumptions, standards, and methods for generating and communicating interpretations. Methodological and theoretical works illustrate case study, ethnography, narrative, and action research. This course does not include a field method component. Prerequisites: Grad st. |
| C&I 725: Ethnographic Methods in Curriculum and Instruction | 3 credits Introduction to ethnographic research methods, including their place in the general area of qualitative inquiry, its philosophical foundation in educational anthropology, and methods of data collection, analysis, and writing. Prerequisites: Grad st & cons inst. |
| C&I 726: Qualitative Methods of Studying Children and Contexts | 3 credits Examines the theoretical, methodological, and ethical issues in studying children from interpretive perspectives. A small group research project, focused on examination of an individual child and context, provides an introduction to qualitative methods within fieldwork. Prerequisites: Grad st. |

Educational Leadership and Policy Analysis

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| ELPA 824: Field Research Designs and Methodologies in Educational Administration | 3 credits This introduction to qualitative inquiry focuses on research design, the major qualitative methods and techniques used in field research, data analysis, communicating field research, ethical challenges, and trustworthiness in conducting qualitative research. Prerequisites: Ed Admin 725 or cons inst |
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Human Development and Family Studies

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| HDFS 773: Analytic Approaches in Qualitative Research | 3 credits Provides an overview of different analytic approaches to conducting qualitative research about individuals, families, and communities. |
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Nursing

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| NURSING 701: Interpretive Research in Health Care Settings | 3 credits This course is designed to introduce graduate students to a variety of interpretive research methods and to explore how these methods have been/could be used to examine health care in general and nursing care in particular. Prerequisites: Master's level or above. |
| NURSING 801: Grounded Theory Methodology: Foundations and Practice | 3 credits This course is designed to explore the intellectual roots of the grounded theory method, its recent evolution, and provide the student hands-on practice designing a study and collecting and analyzing data. Prerequisites: P: Nursing 701 or equiv & experience conducting field research. Stdts must have access to ongoing data collection. |

Sociology

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| SOC 545: Ethnomethodology | 3 credits Study of how people, in their everyday lives, assign sense to the world and thereby assemble society's prominent features. Examination of conversational and other interactive practices. |
| SOC 754: Qualitative Research Methods in Sociology | 3 credits This course teaches how qualitative research can be used to advance sociological theory. Topics include inductive and deductive research designs in qualitative research, conducting and analyzing interviews, content analysis, conducting observations, focus groups and data management in qualitative research. Prerequisites: Grad st in Soc/Rural Soc or cons inst. |
| SOC 755: Methods of Qualitative Research (Crosslisted with Ed Pol, Rur Soc) | 3 credits Introduces qualitative, or ethnographic, research methods, emphasizing those suitable for educational and other organizational settings. Considers strengths and limitations of qualitative approaches in relation to varied research problems. Explores methodological procedures from entry into the field through writing. Prerequisites: Cons inst. |
| SOC 955: Seminar-Qualitative Methodology (Crosslisted with Ed Pol) <i>Last offered spring 2009</i> | 3 credits An intensive, practice-oriented exploration of one qualitative research method such as participant-observation, interviewing, narrative analysis, oral history or ethnography. Treatment of the method includes: logics of inquiry, analysis of data obtained through the method, and uses of the method. Prerequisites: Grad st; soc, educ, or related soc sci background & cons inst. |

Social Work

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| Soc Work 949: Qualitative Methods for Social Science Research | 1-3 credits Proseminar Prerequisites: Cons inst. |
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4. Integrated—Quantitative and Qualitative Methods Relevant to Type 2 Translational Research

Business

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| MHR 836: Research Methods in Management 2 (Second of a two-course sequence.) | 3 credits Design of research. Replication, validity extension, structured observation, triangulation of methods, sampling, case studies, one group studies, static comparisons, experimental designs, quasi-experimental designs, simulation, correlational designs, change, and applied data analysis. Upon completion of this course, the Ph.D. student should have the research methods background necessary for the design of a dissertation project. Prerequisites: Gen Bus 704 & MHR 835. |
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| Curriculum and Instruction | |
| C&I 714: Research and Evaluation Paradigms in Curriculum and Instruction | 3 credits An analysis of differing orientations to evaluation and research. Emphasis on assumptions, attitudes, and expectations of what constitutes scientific knowledge and explanation; relationship of research orientation, methods of inquiry, theory, and practice. |
| Educational Leadership and Policy Analysis | |
| ELPA 725: Research Methods and Procedures in Educational Administration | 3 credits Introduction to the research process. Role of theory and hypothesis testing in research. Introduction to research problems, questions, hypotheses, variables, constructs, definitions, measurement, research and experimental designs, sampling, descriptive statistics, proposal writing, types of research and statistical computing. Critical analysis of published research. Prerequisites: Grad st. |
| ELPA 826: Evaluation for Administrative Decision Making in Education (Dr. Allan Knox). | This course covers qualitative and quantitative methods for evaluating educational programs. |
| Sociology | |
| SOC 750: Research Methods in Sociology (Crosslisted with Rur Soc) | 3 credits Application of scientific methods to the analysis of social phenomena; methodological orientations in sociology; types of research procedure: nature of sociological variables; lectures and lab. Prerequisites: Grad st, Soc 357 and 362 or equiv. |
| Women's Studies | |
| 900: Approaches to Research in Women's Studies | 3 credits Transdisciplinary approaches to women's studies/gender studies. Emphasizes theoretical and methodological issues, the nature of interdisciplinary work, and the relationship to traditional disciplines, with an international and multicultural focus. Prerequisites: Grad standing |

Certificate Contact

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