

IMPLEMENTATION SCIENCE (IMPLMT SCI)

IMPLMT SCI 241 Designs for Intervention Research in Real-World Settings (2 Units)

Offered In: Spring

Instructor(s): Starley Shade, Joelle Brown

Prerequisite(s): Some familiarity with study designs

Restrictions: none

Activities: Lecture, Project

Provides a foundation of the main components of alternatives to individual randomized control trials that can be used to evaluate interventions placed in real world settings. For each design covered in the class—randomized (cluster-randomized, stepped-wedge randomized trials) and quasi-experimental designs (pre-post and interrupted time series) students will assess: what are the key features, common pitfalls, and strategies to improve internal and external validity. Cross-listed as IMS 241.

School: Graduate Division

Department: Clinical and Epidemiological Research Program

May the student choose the instructor for this course? No

Does enrollment in this course require instructor approval? No

Course Grading Convention: Letter Grade, P/NP (Pass/Not Pass) or S/U (Satisfactory/Unsatisfactory)

Graduate Division course: Yes

Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? Yes

Repeat course for credit? No

IMPLMT SCI 242 Program Evaluation to Enhance Implementation and Adaptation (2 Units)

Offered In: Winter

Instructor(s): Priya Shete

Prerequisite(s): None

Restrictions: Enrollment is not permitted if the cross-listed course MPLMT SCI 242 or EPIDEMIOLOG 242 has been taken and passed.

This course will familiarize students with approaches to evaluating an evidence-informed health program or intervention using an implementation science lens. Learners will develop an evaluation plan that uses appropriate evaluation frameworks to guide the systematic collection of data to: 1) understand if and how a program/implementation strategy is meeting its stated goals and objectives; 2) improve program/implementation strategy effectiveness; and/or 3) make decisions about future programming

School: Graduate Division

Department: Epidemiology And Translational Sciences Program

May the student choose the instructor for this course? No

Does enrollment in this course require instructor approval? No

Course Grading Convention: Letter Grade, P/NP (Pass/Not Pass) or S/U (Satisfactory/Unsatisfactory)

Graduate Division course: Yes

Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD) enroll in this course? Yes

Repeat course for credit? No

IMPLMT SCI 243 Human Centered Design (2 Units)

Offered In: Fall

Instructor(s): Meghana Gadgil

Prerequisite(s): Training or experience in public health, quality improvement, or health care organization leadership. Exceptions for these prerequisites may be made with the consent of the course director.

Restrictions: Enrollment is not permitted if the cross-listed course IMPLMT SCI 243 or EPIDEMIOLOG 243 have been taken and passed.

Activities: Fieldwork, Project

Human-centered design is a discipline incorporating the human needs perspective to solve problems in public health and medicine. As an introduction to the practice, learners will follow a service design process applying methods focused on building empathy, translating needs into solution requirements, creative ideation, prototype development and testing, and planning for implementation. Broad implementation science principles and approaches will be overlaid to show intersection points.

School: Graduate Division

Department: Epidemiology And Translational Sciences Program

May the student choose the instructor for this course? No

Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/Unsatisfactory)

Graduate Division course: Yes

Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? Yes

Repeat course for credit? No

IMPLMT SCI 245 Introduction to Implementation Science: Theory and Design (2 Units)

Offered In: Fall, Spring

Instructor(s): Adithya Cattamanchi, Andrew Kerkhoff

Prerequisite(s): Training or experience in clinical research, public health, quality improvement or health care organization leadership. Exceptions for these prerequisites may be made with the consent of the course director.

Restrictions: The course cannot be repeated for credit - enrollment is not permitted if the in-person version of the course (cross-listed as EPIDEMIOLOG 245 or IMPLMT SCI 245) has been taken and passed.

Activities: Project

This online course provides a foundation for designing and evaluating strategies to accelerate the translation of evidence into practice, policy, and public health. Concepts introduced include community engagement, behavior change theory, and implementation strategy design and evaluation frameworks, and study design. In addition to didactic work, scholars are guided through the creation of a protocol aimed towards facilitating uptake of their chosen health intervention.

School: Graduate Division

Department: Epidemiology And Translational Sciences Program

May the student choose the instructor for this course? No

Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/Unsatisfactory)

Graduate Division course: Yes

Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD)

enroll in this course? Yes

Repeat course for credit? No

IMPLMT SCI 246 Designing Individual-Level Implementation Strategies (2 Units)

Offered In: Winter

Instructor(s): Matthew Spinelli

Prerequisite(s): Training or experience in clinical research, public health, quality improvement, or health care organization leadership. Exceptions for these prerequisites may be made with the consent of the course director

Restrictions: The course cannot be repeated for credit - students who take and pass EPIDEMIOLOG 246 are not permitted to take this course.

Activities: Project

This course trains students to design interventions for individual health behavior change while targeting multiple determinants: interpersonal and system/community/structural levels. Students apply behavior change theories and implementation frameworks to their own work. Assignments include case studies and discussions with class colleagues, focusing on real-world applications to enhance understanding. Graduate Division students may take this course for a letter grade or P/NP.

School: Graduate Division

Department: Epidemiology And Translational Sciences Program

May the student choose the instructor for this course? No

Does enrollment in this course require instructor approval? No

Course Grading Convention: Letter Grade, P/NP (Pass/Not Pass) or S/U (Satisfactory/Unsatisfactory)

Graduate Division course: Yes

Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD) enroll in this course? Yes

Repeat course for credit? No

IMPLMT SCI 247 Designing Interventions to Change Organizational Behavior (2 Units)

Offered In: Spring

Instructor(s): Laura Schmidt

Prerequisite(s): Experience working/volunteering within an organization. Ideally, this will be a healthcare organization you work in now or if not, then in the past.

Restrictions: Enrollment is not permitted if IMPLMT SCI 247 or EPIDEMIOLOG 247 has been taken and passed.

Activities: Lecture, Project

This course surveys a range of translational tools at the health care system level to promote the adoption of evidence-based medicine by providers and delivery systems. You will learn strategies for change in the broader context of sociological theories of organizational behavior and policy implementation. You will also focus your learning on translational tools used by stakeholders outside of health care organizations to promote the adoption of clinical innovations within organizations.

School: Graduate Division

Department: Clinical and Epidemiological Research Program

May the student choose the instructor for this course? No

Does enrollment in this course require instructor approval? No

Course Grading Convention: Letter Grade, P/NP (Pass/Not Pass) or S/U (Satisfactory/Unsatisfactory)

Graduate Division course: Yes

Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD) enroll in this course? Yes

Repeat course for credit? No

IMPLMT SCI 248 Community-Engaged Research (2 Units)

Offered In: Fall

Instructor(s): Sara Ackerman

Prerequisite(s): Training or experience in public health, quality improvement or health care organization leadership. Exceptions for these prerequisites may be made with the consent of the course director.

Restrictions: Enrollment is not permitted if EPIDEMIOL 248 has been taken and passed.

Activities: Project

This course provides training in the theory and practice of collaborating with patients, members of the public, and community-based organizations in health research, intervention design and implementation. Multiple engagement strategies are introduced through readings, guest speakers, case studies, and online discussions. Participatory research methods will be applied to trainees' ongoing or planned projects in order to adapt health interventions to real-world contexts.

School: Graduate Division

Department: Epidemiology And Translational Sciences Program

May the student choose the instructor for this course? No

Does enrollment in this course require instructor approval? No

Course Grading Convention: P/NP (Pass/Not Pass) or S/U (Satisfactory/Unsatisfactory)

Graduate Division course: Yes

Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD) enroll in this course? Yes

Repeat course for credit? Yes

IMPLMT SCI 249 Translating Evidence Into Policy (2 Units)

Offered In: Spring

Instructor(s): Beth Griffiths

Prerequisite(s): The course is focused on domestic (US) health policy and requires a basic understanding of government organizational structures (executive, legislative and judicial branches)

Restrictions: Enrollment is not permitted if the cross-listed course EPIDEMIOL 249 or MPLMT SCI 249 have been taken and passed.

Activities: Lecture, Discussion

This course will focus on the policy process and strategies for collecting and disseminating research findings to inform and influence that process. The course will be taught through a series of videos and guided readings delivered by faculty with extensive experience at the federal, state, and local level in health care policy.

School: Graduate Division

Department: Epidemiology And Translational Sciences Program

May the student choose the instructor for this course? No

Does enrollment in this course require instructor approval? No

Course Grading Convention: Letter Grade, P/NP (Pass/Not Pass) or S/U (Satisfactory/Unsatisfactory)

Graduate Division course: Yes

Is this a web-based online course? No

Is this an Interprofessional Education (IPE) course? No

May students in the Graduate Division (i.e. pursuing Master or PhD) enroll in this course? Yes

Repeat course for credit? No

IMPLMT SCI 250 Mixed Methods Research (2 Units)

Offered In: Spring

Instructor(s): Patience Afulani, Alison El Ayadi**Prerequisite(s):** At least one prior introductory qualitative methods course and one prior quantitative methods course are strongly recommended, for example: IMPLMT SCI 267 and BIOSTAT 200.**Restrictions:** None**Activities:** Lecture, Project, Discussion

This course covers general principles of mixed methods research designs through readings, lectures, case studies, and online discussion. Trainees are oriented to diverse mixed methods designs and strategies for integrating quantitative and qualitative study components, application of theoretical frameworks, benefits and challenges of mixed methods research, and key design and methodological considerations. They gain hands-on experience by designing and planning a mixed methods research project.

School: Medicine**Department:** Epidemiology And Biostatistics**May the student choose the instructor for this course?** No**Does enrollment in this course require instructor approval?** No**Course Grading Convention:** Letter Grade, P/NP (Pass/Not Pass) or S/U (Satisfactory/Unsatisfactory)**Graduate Division course:** No**Is this a web-based online course?** No**Is this an Interprofessional Education (IPE) course?** No**May students in the Graduate Division (i.e. pursuing Master or PhD) enroll in this course?** Yes**Repeat course for credit?** No**IMPLMT SCI 267 Qualitative Methods (2 Units)**

Offered In: Winter

Instructor(s): Sara Ackerman, Kim Koester**Prerequisite(s):** Training or experience in public health, epidemiology, clinical research, quality improvement or health care organization leadership. Exceptions for these prerequisites may be made with the consent of the course director.**Restrictions:** None**Activities:** Lecture, Project

This course provides training in the use of qualitative methods in clinical, health services and implementation research. Through readings, lectures, case studies, and online discussions, students will gain basic skills in conducting interviews, focus groups, observations, and qualitative data analysis. The course will also cover sampling and recruitment strategies, working with theoretical frameworks, and publishing qualitative and mixed methods findings. Cross-listed as EPIDEMIOLOG 267.

School: Graduate Division**Department:** Epidemiology And Translational Sciences Program**May the student choose the instructor for this course?** No**Does enrollment in this course require instructor approval?** No**Course Grading Convention:** Letter Grade, P/NP (Pass/Not Pass) or S/U (Satisfactory/Unsatisfactory)**Graduate Division course:** Yes**Is this a web-based online course?** No**Is this an Interprofessional Education (IPE) course?** No**May students in the Graduate Division (i.e. pursuing Master or PhD) enroll in this course?** Yes**Repeat course for credit?** No