

IMPLEMENTATION SCIENCE (IMP)

IMP 6000 Foundations in Implementation Science

The purpose of this course is to introduce participants to the foundations of implementation science (i.e., terminology, conceptual models and frameworks, study design). Participants will develop an in-depth understanding of the historical and theoretical underpinnings of implementation science, preparing them to describe the positionality of their research within the broader field. Relevant theories and frameworks will be addressed in the context of multiple disciplines, such as healthcare, social work, education, and criminal justice. Significant group work will prepare participants to evaluate the appropriate usage of frameworks, theories, and models in the design and execution of IS research. This course is available to anyone outside of the Implementation program with permission from the program coordinator. This course may also be of interest to students with a major in Health Policy Research, Medicine, Nursing, Social Work, or Education. **There are two alternate completion pathways for IMP 6000; participants may take the summer 4-day virtual Implementation Science Institute (HPR 6110) for 0.5 CU and complete an additional 0.5 CU elective, OR participants may enroll in HPR 6200: Implementation Science in Health and Healthcare.

Fall

1 Course Unit

IMP 6100 Ethics and Equity in Implementation Science

Implementation science introduces a host of issues related to the ethics and equity in care delivery and the conduct of research. We will use case examples from ongoing trials to demonstrate and work through these concepts, including (1) pragmatic tradeoffs (e.g., acceptability and effectiveness) in study design and execution; (2) sustainability and health system integration as up-front considerations; (3) unintended consequences with implications for health equity; and (4) consent in implementation research, considering organizational power and hierarchical relationships. We will highlight future directions for empirical work at the intersection of bioethics and implementation science. We will encourage students to work through these issues in their own research.

Prerequisite: IMP 6000, HPR 6110 (Penn Implementation Science Institute) or HPR 6200

Fall

Prerequisite: HPR 6110 OR IMP 6000 OR HPR 6200

1 Course Unit

IMP 6200 Mixed Methods in Implementation Science

The focus of this course is applying and integrating mixed methods in implementation research/science, with a particular emphasis on incorporating qualitative and mixed methods to design and evaluate implementation trials equitably and sustainably. This course will provide an overview of different ways in which mixed methods can be used across implementation and dissemination research using readings, lectures, case studies, and group discussions. Trainees will gain basic skills in collecting and analyzing qualitative and mixed methods data, ways in which mixed methods can be integrated into different study designs (e.g., pragmatic trials) and innovative approaches such as rapid ethnography and configurational comparative methods. The course will also cover philosophical and theoretical foundations and tensions in the field. At the end of the course, trainees will be able to: 1. Design and plan a mixed methods implementation research project. 2. Identify different forms of mixed methods analysis and how to integrate into study designs. 3. Critically evaluate the use of methodological paradigms and theoretical models to ensure alignment with implementation targets and strategies. 4. Identify different ways mixed methods can be incorporated across the implementation process from contextual inquiry to implementation trials to policy change. Prerequisite: IMP 6000, HPR 6110 (Penn Implementation Science Institute), or HPR 6200 Prior coursework or training in qualitative research is strongly suggested. Training or experience in public health, epidemiology, quality improvement or health care organization leadership is preferred.

Spring

Prerequisite: IMP 6000 OR HPR 6110 OR HPR 6200

1 Course Unit

IMP 6300 Project Development in Implementation Sciences

This course offers an opportunity for trainees to apply competencies acquired through the certificate program to address questions related to implementation research and practice. Students will meet weekly as a group to receive guidance and hands-on experience in developing individual proposals in their topical area of interest. At the conclusion of the course, students will have workshoped a proposal suitable for submission, so preference for enrollment will be given to trainees who plan to submit grants within the next year Prerequisite: IMP 6000, HPR 6110, or HPR 6200

Fall, Spring, and Summer Terms

Prerequisite: HPR 6110 OR IMP 6000 OR HPR 6200

0.5 Course Units

IMP 6400 Practicum in Implementation Science

This course offers an opportunity for trainees to apply competencies in implementation research and practice. Through mentorship from course directors, trainees will receive guidance as they execute individual projects. Prerequisite: IMP 6000, HPR 6110, or HPR 6200

Fall, Spring, and Summer Terms

Prerequisite: HPR 6110 OR IMP 6000 OR HPR 6200

0.5 Course Units