

## "B" Series 2024-2025

### MODULE 1: LAYING THE FOUNDATION

Dates: 9/26, 10/10, 10/24

At the early stages of our study design we need to ask: What has been done before in this area? What methods of study have been used? What are the gaps in the literature? In this module we will cover:

- **Conducting an efficient review of literature** to inform your study design,
- **Designing your study** to be high quality & produce valid inferences,
- Understanding elements of **human subjects protection**
- Navigating the HMS and BIDMC **human subjects review** process

### MODULE 2: COLLECTING HIGH QUALITY QUALITATIVE DATA

Dates: 11/7, 11/21, 12/5

In this module we will hone our skills on different types of qualitative data collection. We will cover:

- **Facilitating focus groups** – moderating groups in person & on Zoom
- **Collecting observational data** – creating data collection forms and conducting observations
- **Conducting consensus research** – implementing Delphi studies

### MODULE 3: INCORPORATING THEORY INTO YOUR RESEARCH

Dates: 1/16, 1/30

Incorporating theory into your initial design and in the introduction and discussion sections of your manuscript is a challenge for many medical education researchers. We will review common theories that are used in research and evaluation, and help you identify theories that fit with your work. Sessions will cover:

- Getting started with understanding theories: Learning theories and behavior change theories
- Incorporating some theoretical models into your study design and manuscript: some hands-on practice

### MODULE 4: MIXED METHODS RESEARCH

Dates: 2/13, 2/27

Mixing qualitative and quantitative methods can be an effective way to understand the depth and breadth of your topic of interest. This module will include:

- **How, when, and why** to use mixed methods (e.g., surveys and focus groups), crafting research questions for mixed methods studies
- Understanding **concurrent & sequential designs**; analyzing mixed methods data and reporting findings

### MODULE 5: PROJECT SHARING AND FEEDBACK

Dates: 3/13, 3/27

The best way to learn research methods is to apply them and receive feedback from your peers and instructors! In this module we will have an opportunity to discuss each other's projects and "workshop" portions that you would like help with (e.g., study design, survey, focus group guide, manuscript). You can sign up in the fall to share your work in progress. We will also schedule 1:1 consulting time for anyone interested in more individual feedback.

### MODULE 6: INTRODUCTION TO CURRICULUM DESIGN & ASSESSMENT

Dates: 4/10, 5/8, 5/22

How do you design effective learning experiences and measure their success? In this module, we will explore different curriculum frameworks and evaluation models that can guide our program development and generate publishable scholarship. We will:

- Align objectives, instructional activities, and assessments to create cohesive learning experiences for adult learners
- Map assessment methods to learning objectives
- Learn to select the right evaluation model to match targeted program goals
- Explore digital tools and approaches designed for common instructional needs in medical education

## Planned sessions for 2025-2026 (subject to change)

### MODULE A1: INTRODUCTION TO EDUCATIONAL RESEARCH DESIGN

1. Getting started: formulating research questions, deciding on quantitative, qualitative, or mixed methods
2. Educational research design, constructs, and outcome measures
3. Identifying suitable quantitative and qualitative methods: A study design for your research question

### MODULE A2: SURVEY DESIGN & IMPLEMENTATION

4. Fundamentals of survey design: steps in survey development; survey items, response types; measuring knowledge/attitudes/skills/behaviors
5. Evidence-based survey practices: survey flow, sampling, cognitive interviewing, pilot testing, creating survey items, choosing response types
6. Sources of bias in survey research; threats to validity; survey implementation & optimizing response rates

### MODULE A3: SURVEY DATA ANALYSIS & REPORTING

7. Statistics 101: variable types; analyzing survey data using statistical software
8. Statistics 101: Descriptive statistics; power & sample size determination; reporting results

### MODULE A4: QUALITATIVE RESEARCH DESIGN, IMPLEMENTATION, ANALYSIS, & REPORTING

9. Overview of different qualitative approaches in education research: grounded theory, phenomenology, ethnography, narrative approaches, case studies, participatory action research
10. Interview and focus groups; developing interview guides, conducting interviews & focus groups
11. Choosing your analytic method for interview/focus group data; Introduction to content analysis & thematic analysis and deductive vs inductive coding
12. Qualitative validity and trustworthiness; writing up your qualitative analysis using reporting guides

### MODULE A5: EDUCATIONAL LEARNING THEORIES & METHODS

13. Clinical reasoning skills and metacognition research
14. Learning with others: Learning environment research and social approaches to learning theories
15. Using AI in educational research and methods