

2022 Fogarty GID Postgraduate Web-Based Course: “Mixed-Methods Research for Infectious Diseases”

1. Course Description

One of the ways to address infectious diseases without overlooking the understanding of contexts, social dynamics, perceptions and social responses of different human groups in relation to their health is the use of data collection, analytic methods and approaches developed within different disciplinary fields. Undoubtedly, research as a process, increasingly requires the management of different methods and tools to conduct complex analyses in a practical way and, above all, in accordance with social and institutional realities and needs for new knowledge. The current global and local challenges require comprehensive perspectives that articulate diverse approaches and perspectives. Therefore, this inter-institutional and international course will explore and integrate qualitative and quantitative methods to address knowledge gaps in the prevention and control of infectious diseases.

This course will provide the participants with methodological and conceptual fundamentals of mixed-methods research. Modules will include: overview of mixed-methods research; developing a mixed-methods research question; strategies for integrating qualitative and quantitative research in mixed-methods study designs; instrument design for mixed-methods research; qualitative interview and focus group discussion; developing interview guides for qualitative research; qualitative data analysis; as well as quantitative, qualitative, and mixed-methods approaches to planning, implementing, and evaluating health interventions.

2. Target audience

This course is designed for:

- Students registered in a formal postgraduate program at national universities who will be assigned credits for their participation
- Postgraduate student without credits as complementary training to their academic process
- Research professors and faculty affiliated with post-graduate programs in health and social sciences of Colombian universities
- Investigators interested in implementation or mixed-methods research on infectious diseases

3. Course Objectives

This postgraduate course will introduce mixed-methods research as a strategy to understand infectious diseases in relation with social realities when implementing public health interventions in local and global contexts.

After completing this course, students will:

- Gain an overall understanding of mixed-methods for health research
- Understand the strengths and limitations of qualitative and quantitative data and how they can be integrated to more fully answer health research questions
- Understand the value of complementary methods and approaches for understanding infectious diseases in relation with social contexts

4. Methodology

The course methodology includes:

- **Weekly web-based lectures or workshops** on each topic presented by Colombian and international experts.
- **Lectures and workshops that will be delivered within a virtual** network of graduate programs in public health and biomedical sciences in Colombia, creating an “inter-institutional classroom.”
- **Videos and research articles** to illustrate the core concepts of the course to be reviewed by participants before each session to enrich the learning process

Students aiming to receive academic credits for the course must

- be sure their University assigns an institutional course coordinator
- confirm the number of credits to be assigned by the university for the course
- complete videos and/or reading assignments, as well as any additional activity assigned by their institutional course coordinator.
- participate in discussions, review research papers, complete homework assignments, etc., as determined by their institutional course coordinator.
- complete a final assessment (research protocol or concept note). The course coordinator at each institution will be responsible for grading his or her students work

Participating universities may include additional academic activities and define the criteria for the final grade of students in their graduate programs

5. Readings

- All readings for each lecture topic will be distributed via the [Moodle course platform](#)

6. Evaluation

- Attendance: 30%
- Knowledge evaluation: 30%
- Final assignment: 40%
- Note: For students receiving credits, evaluation may also include additional quizzes, additional homework, or brief reading reports prior to each lecture to be submitted to the institutional course coordinator. (To be defined with course coordinator).

7. **Credits:** For students registered in a formal postgraduate program. The number of credits should be assigned by each University. In this case Universities must assign a professor to assume the responsibility of institutional course coordinator

Estimated dedication:

- a. Lecturers: 2 hours per week, 17 weeks
- b. Independent study: 4 hours per week, 17 weeks.
- c. Postgraduate programs could include additional work sessions organized/ supervised by Institutional course coordinator

8. **Language:** English / Spanish

9. **Pre-requisites:** Undergraduate degree in a biomedical, public health, other health-related field or social sciences, or permission of one of the course coordinators.

10. **Course Schedule** (Tuesdays 10 am -12 noon)

No	Date	Topics	Lecturers
Module 1. Introduction and Overview of Mixed-Methods Research			
1	August 9	Overview of mixed-methods in health research	Leslie Curry (Yale University)
2	August 16	Introduction to mixed-methods research design, a mixed-methods research experience	Mari Armstrong-Hough (New York University)
Module 2. Overview of Qualitative methods for health Research			
3	August 23	Qualitative research approaches	Diana Rubio (Universidad Javeriana Bogotá)
4	August 30	Field work and community engagement in qualitative research	Diana Castro (Universidad de Antioquia/ CIDEIM)
5	September 6	Developing semi-structured interviews and focus group discussion	Lauretta Grau (Yale University)
6	September 13	Data analysis in qualitative research – Understanding of qualitative data	Diana Rubio (U. Javeriana) & Diana Castro (U. de Antioquia / CIDEIM)
7	September 20	Workshop 1: Case study in qualitative research	
Module 3. Overview of Quantitative Methods for Health Research			
8	September 27	Creating structured surveys and assessing psychometric properties	Javier Mignone (Manitoba University)

9	October 4	Common quantitative methods, sampling, and data collection approaches in mixed-methods research	Juan Carlos Quintero (Universidad de Antioquia)
10	October 11	Data analysis in quantitative research	Maria Patricia Arbeláez (Universidad de Antioquia)
Quiz			
Module 4. Mixed-Methods Research, from theory to design			
11	October 18	Problem statement: Developing an appropriate mixed-methods research question	Ellen Mitchell (Institute of Tropical Medicine in Belgium)
12	October 25	Basic mixed-methods research designs	Claudia Marcela Vélez (Universidad de Antioquia)
13	November 1	Data analysis in mixed-methods research	Ellen Mitchell (Institute of Tropical Medicine in Belgium)
14	November 8	Writing up the results and knowledge translation: using research insights to advocate for change	Claudia Marcela Vélez (Universidad de Antioquia)
15	November 15	Writing qualitative and mixed methods papers	Lauretta Grau (Yale University)
16	November 22	Discussion panel & workshop: mixed-methods in infectious diseases research	
Final assignment (due date Nov 29)			

11. Course coordinators

- CIDEIM:
 - Coordinator: Dr. Diana María Castro Arroyave, PhD, Social Scientist- CIDEIM, Research Associate at the Universidad de Antioquia
 - Co-coordinador: María Isabel Echavarría, MPH Global Health, SIH and IR Training coordinator CIDEIM
- Yale University
 - Dr. Lauretta Grau PhD Research Scientist in Epidemiology Yale University School of Public Health

12. Institutional course coordinators

COLOMBIA

Medellin	Universidad de Antioquia	Carlos Rojas Profesor Titular Coordinador Grupo Epidemiología/Programa de becas TDR/Programa Manitoba Facultad Nacional de Salud Pública carlos.rojas@udea.edu.co
		Sara Robledo Profesora titular Facultad de Medicina Coordinadora Desarrollo y Servicios para productos Biotecnológicos Universidad de Antioquia sara.robledo@udea.edu.co
Cali	Universidad del Valle	Gloria Inés Palma Profesora Titular Escuela de Ciencias Básicas gloria.palma@correounivalle.edu.co
	Universidad Libre	Robinson Pacheco Director Maestría en Epidemiología robinson.pachecol@unilibre.edu.co
	Universidad San Martín	Juan De Dios Villegas Decano de Facultad de Salud juan.villegas@sanmartin.edu.co
Bogotá	Universidad del Bosque	Yamileth Ortiz Directora Doctorado en Salud Pública Facultad de Medicina oyamileth@unbosque.edu.co
	Pontificia Universidad Javeriana	Juan Carlos Ulloa Profesor Asociado, Departamento de Microbiología, Laboratorio de Virología Grupo de Enfermedades Infecciosas Facultad de Ciencias julloa@javeriana.edu.co
Bucaramanga	Universidad Industrial de Santander	Oscar Leonel Rueda Profesor Posgrados Departamento de Ciencias Básicas orueda@uis.edu.co
Santa Marta	Universidad de Magdalena	Vivian Villalba Profesora Maestría en Epidemiología vitalvivi@hotmail.com
Caribe	SUE Caribe (Sistema de Universidades Estatales del Caribe)	Doris Gómez Directora Regional Doctorado en Medicina Tropical - SUE Caribe degomez@hotmail.com

	Colombiano – Doctorado de Medicina Tropical)	
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ARGENTINA

Puerto Iguazú	INMeT	Mariela Martínez Instituto Nacional de Medicina Tropical marielafmartinez@gmail.com
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BOLIVIA

La Paz	IINSAD	Eddy Martínez Responsable Unidad de Parasitología, Medicina Tropical y Medio Ambiente - IINSAD eddy.martinez@umsalud.ed
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Contact:

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