

# VOLUNTEER LECTURER PROGRAM

## National Autonomous University of Honduras (UNAH)

### AUTHOR/PROJECT TEAM

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### CONTEXT

In Honduras and the wider Central American region, research and graduate-level training in mathematics face structural challenges that affect both continuity and quality of training opportunities. Limited availability of specialized courses, constrained access to recent literature and advanced training experiences, and uneven opportunities for international collaboration can slow the development of research capacity, especially for early-career researchers and students.

### CDC SUPPORTED ACTIVITY

Prof. Fabrizio Ruggeri (Consiglio Nazionale delle Ricerche - Istituto di Matematica Applicata e Tecnologie Informatiche, Italy) has taught a course in 2017, 2018 and 2022 on Time Series and Nonparametric Statistics.

Prof. Raymond Greenwell (USA) taught a 4-week course on Nonparametric Statistics at the Universidad Nacional Autónoma de Honduras from Feb. 6, 2023-March 2, 2023.

### IMPACT

The VLP courses contributed to strengthening participants' understanding of advanced mathematical/statistical tools and their application in research.

Hosting the VLP lecturers strengthened local capacity to deliver high-level instruction. Faculty and teaching staff gained experience in course structure, lesson planning, pedagogy and conferences in advanced topics.

By bringing advanced topics to local audiences and encouraging interaction among participants, the VLP contributed to strengthening scholarly ties within the region. Such networking supports future joint activities, including seminars, co-advising, and collaborative research proposals.

Both VLP-supported topics—Nonparametric Statistics (2017, 2023) and Time Series (2018, 2022)—were delivered as specialized training that improved students' conceptual foundations and analytical skills. This supported their readiness to engage in research, coursework advancement, and thesis-related work.

### OUTCOMES AND ACHIEVEMENTS

CDC VLP courses hosted by UNAH:

- Nonparametric Statistics — Prof. Fabrizio Ruggeri (Italy), Period: February - March 2017
- Time Series — Prof. Fabrizio Ruggeri (Italy), Period: September 2018
- Time Series — Prof. Fabrizio Ruggeri (Italy), Period: September - October 2022
- Nonparametric Statistics — Prof. Raymond N. Greenwell (USA), Period: February 2023



### REFLECTIONS

The CDC VLP activities at Universidad Nacional Autónoma de Honduras provided targeted, high-level mathematical training in key areas, strengthening local capacity for teaching, research, and supervision. By improving access to specialized expertise in Time Series and Nonparametric Statistics, the program supported students and early-career researchers and helped foster academic collaboration pathways. Overall, these outcomes contributed to building more robust mathematical capabilities in the country and to enhancing long-term opportunities for mathematical collaboration in the region.

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