

Quantitative Research: A Hands-On Preparation

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M 01:10-04:10P

Honors College Seminar Room E128

College Ave Campus

Quantitative research uses measurable data to formulate facts and uncover patterns in research, and is the standard in most scientific disciplines. Content courses help students generate research ideas, but do not teach them how to convert ideas into actual experiments. This course offers students the unique opportunity to gain hands-on experience on how to design, conduct, and analyze quantitative experiments. How do I create stimuli? How do I collect data? What statistical analyses should I run? How do I run them? To cover these and other useful topics, the course combines applied lectures with real data collection (e.g., students will learn to use an eye-tracker), and hands-on statistical laboratory sessions, and will include professional talks, guest speakers, and guided tours to laboratories employing cutting-edge methodologies in cognitive science.

This course is aimed at undergraduate students with interests in cognitive psychology, linguistics, or language acquisition, but students from any sciences relying on quantitative data, including social and behavioral sciences, are welcome. Previous knowledge in math, statistics, or programming is not required.

NURIA SAGARRA is Associate Professor of Linguistics in the Department of Spanish and Portuguese at Rutgers University. Her research straddles the domains of cognitive science, linguistics, and second language acquisition, seeking to identify what factors explain adults' difficulty learning morphosyntax in a foreign language, with the aim of informing linguistic and cognitive models, as well as instructional practices. She investigates these topics using self-paced reading, eyetracking, and more recently, event-related potentials. She is the recipient of a National Science Foundation grant, and has published in notable journals, including *Applied Psycholinguistics*, *Bilingualism: Language and Cognition*, *Language Learning*, *Lingua*, and *Studies in Second Language Acquisition*.