

Module Brief- Additional Information (YSS3336)

Note:

Please note that the information in this brief is tentative as faculty could still be in the process of developing or refining their module details.

Module Code and Title	YSS3336 - Quantitative Methods in Global Affairs
Module Description <i>The 100 word course description from Course Catalogue will be made available to students. Please provide additional information if you wish.</i>	The specific contents of this module will be flexible and subject to further changes to accommodate students' learning needs and quantitative background.
Learning Objectives	By the end of this course, students should be able to conduct empirical quantitative analysis utilizing advanced methodologies to answer their research questions. Students will be familiar with a wide range of quantitative analytical tools and select the most appropriate one to address the question at hand, based on their understandings of the underlying statistical theories and the availability of data sources.
Modes of Learning & Teaching <i>Please provide details of the learning activities learners will participate in etc.</i>	<ul style="list-style-type: none"> - Reviews on empirical research design and methodology (5%) - Challenges in making causal inferences using observational data and the potential outcomes framework (5%) - Basic statistical concepts: sampling, uncertainty, probability, hypothesis testing, etc. (10%) - Regression analysis and adjustments, with implementation in R (10%) - Basic statistical learning techniques in R (10%) - Experimental methods and implementation in R (20%) - Quasi-experimental methods and implementation in R (20%) - Potential biases in measurements and data sources (10%) - Data management and manipulation (10%)
Assessment Criteria <i>Please provide details of the assessment methods or what proportion of the overall grade is composed by each component of assessment</i>	Class Participation: 10% In-class quizzes (4): 20% (4 x 5%) Problem sets (4): 40% (4 x 10%) Final paper project: 30%
Required Reading List	Angrist, Joshua D., and Jörn-Steffen Pischke. <i>Mostly harmless econometrics</i> . Princeton university press, 2008. (https://press.princeton.edu/books/paperback/9780691120355/mostly-harmless-econometrics) Imai, Kosuke. <i>Quantitative social science: an introduction</i> . Princeton University Press, 2018. (https://press.princeton.edu/books/hardcover/9780691167039/quantitative-social-science)

	<p>Cunningham, Scott. <i>Causal Inference</i>. Yale University Press, 2021. https://yalebooks.yale.edu/book/9780300251685/causal-inference</p> <p>Gerber, Alan S., and Donald P. Green. <i>Field experiments: Design, analysis, and interpretation</i>. WW Norton, 2012. https://wwwnorton.com/books/9780393979954</p>
Reading List (additional/supplementary)	<p>Li, Quan. <i>Using R for Data Analysis in Social Sciences: A Research Project-oriented Approach</i>. Oxford University Press, 2018.</p> <p>King, Gary, Robert O. Keohane, and Sidney Verba. <i>Designing social inquiry</i>. Princeton university press, 2021 (new edition)</p>
Any other Information	<p>Only parts of the required reading list will be covered in class. Additional readings are for students' own reference.</p>