

**MKT 70300**  
**Research Methods III: Quantitative Research in Marketing**  
Tue 11:00 AM – 1:00 PM  
VC 12 – 223  
Spring 2023

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The goal of this module is to teach students techniques to run important tests in behavioral sciences, including moderation, mediation, and a combination thereof. Students will also learn how to apply these models on peculiar datasets collected from secondary sources (e.g., social media data, nationwide surveys) or field studies, learning how to properly treat their idiosyncratic characteristics, including non-normal distributions (e.g., likes on Facebook, number of products purchased) and nested structures (e.g., multiple observations per individual, individuals nested in cities or countries).

This is a practice-oriented course; this means that although some statistical background will be covered during the semester, the ultimate goal of the class is to help students acquire a proficiency in running tests and interpreting outputs of the different techniques that will be covered during the semester.

### **Learning Outcomes**

Upon successfully completing the course, the student will

1. Understand how to prepare data for analysis.
2. Understand the concept of mediation and moderation, and know how to test a combination of different mediation and moderation models.
3. Be able to choose and apply the correct parametric statistical test given the characteristic of the data.
4. Feel comfortable in using both SPSS and R to analyze data.
5. Be able to interpret the outputs from both SPSS and R.
6. Understand how to identify and avoid major pitfalls in behavioral data analysis.

### **Learning approach**

This is a practice-oriented course. Students should bring computers to the classroom so they can practice the analyses in class. There will be home assignments every week. At the end of the program, students will be given an in-loco exam where they will be asked to perform a data analysis and report it in a paper/study format to demonstrate mastery over the techniques learned in class.

## Course grading

- Home assignments.....60%  
Home assignments have to be delivered by the beginning of each class electronically (by email). Assignments will be graded binomially; this means that either they will be accepted or not, following the general guidance below:
  - Not delivered or not acceptable (0): the exercise was not delivered on time or is not acceptable for one of the following reasons: (a) student did not apply the technique or analysis learned in class; (b) student did not attempt to interpret output properly.
  - Pass (1): the student made an honest attempt to solve the exercise using the knowledge or techniques learned in class (this means that the answer may not be correct, but the student made an honest attempt to get it right).
- Final exam.....40%  
The final exam will receive a regular grade from 0 to 100. The student receives 100 if (s)he prepared properly the data for analysis, analyzed the data using the right technique, and reported the results properly.

## Preliminary course planning (subject to change)

Week	Topic
1	Review of basic statistical concepts and tests
2	Data preparation in R
3	Review of basic statistical tests using SPSS and R
4	Moderation analysis using SPSS and R
5	Moderation analysis using SPSS and R
6	Mediation analysis using SPSS and R
7	Mediation analysis using SPSS and R
8	Moderated mediation using SPSS (PROCESS) and R
9	Moderated mediation using SPSS (PROCESS) and R
10	Creating indexes and checking for independence of constructs/common method bias
11	Non-normal outcomes: Binary regression and Generalized Linear Models
12	Non-normal outcomes: Binary regression and Generalized Linear Models
13	Advanced topics
14	Exam