

**Sabancı University**  
**Faculty of Arts & Social Sciences**  
**PSY 503: Data Analysis for Psychological Sciences II**  
**Spring 2023**

*Please note that we may have to revise the course plan according to the countrywide reassessment to be made regarding higher education. This is expected to happen at the beginning of April. The content to be delivered is certain but the method of course delivery, the number and dates of exams, and some other details are subject to change.*

**Instructor:** Emre Selçuk

**Course Description:** PSY 503 is the second of a two-part series surveying common data analytic approaches in psychology research. The course will build on PSY 502 and mostly focus on mixed-effects models. We will also discuss evolving best practices in methods and data analysis.

**Course Plan:** You can find a tentative list of topics below. The course will include a mix of video lectures, readings, in-class assignments, and discussions. Video lectures and readings will be posted on SUCourse on a weekly basis, depending on our pace. You are expected to watch the video lectures and read the assigned papers before the meetings which will be on Tuesdays from 08:40 to 11:30. The meetings will largely focus on in-class exercises on mixed-effects models but may also include additional lecture, Q & As, and discussion of assigned readings. I will be at FASS 1097 during the meeting time. You can access live broadcast via <https://sabanciuniv.zoom.us/j/92231429964?pwd=Tmp0Ty83QUdZYTNsRjJ0QUlOUURpUT09>

**Course Assessment:** The in-class assignments will make up 50% of your course grade. You can earn points from the assignments only if you attend the class. Assignments submitted without attending the class will not be graded and will not receive any feedback. The remaining 50% of your grade will be based on an in-class exam. The exam will be held on May 23<sup>rd</sup>. Note that the university currently plans to hold all exams in-person on campus. If there are changes in the plan, the university will notify all of us.

**Grades:** The following grading scheme is used to assign the final grade for the course. No changes can be made to your final grade unless there has been an arithmetical error.

<b>A</b>	100-90	<b>B</b>	79.99-75	<b>C</b>	64.99-60	<b>D</b>	49.99-45
<b>A-</b>	89.99-85	<b>B-</b>	74.99-70	<b>C-</b>	59.99-55	<b>F</b>	44.99-0
<b>B+</b>	84.99-80	<b>C+</b>	69.99-65	<b>D+</b>	54.99-50		

**Make-up for missed assignments and exams:** In order to be eligible to take a make-up exam or assignment, you should have a valid and documented excuse.

**Academic Integrity:** Every student is expected to abide by the Sabancı University Academic Integrity Statement. Please see <https://www.sabanciuniv.edu/en/academic-integrity-statement>

## **Tentative List of Topics**

*Please note that the emphasis is on tentative. We will try to cover as much as we can during the semester. We may add or remove topics depending on our progress. The goal is to make sure that you master each topic we cover. Remember that we will go as far as you take us!*

Introductory concepts on mixed-effects models

Fixed vs. random effects

Partitioning random variation to sources

Random intercept & random slope models

Hierarchical linear models

Growth curve models

Cross-classified models

Factor analysis (Bonus topic after the exam)