

PSY 304 – Research Methods and Statistics for Psychology II

Course Syllabus – Spring Semester 2025

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Welcome back! In this course, we will take the basic concepts we learned in PSY202 and extend them to new situations. Things will not be more complicated as such, but they will be more generalised and flexible. In particular, we will take the concepts of ANOVA and correlation, and apply them to datasets with multiple variables. The idea is that, after completing this course (and ideally *Testing and Measurement* too), students will have the basic tools they need to complete a useful and meaningful Independent Study Project, or other project course: they will be able to design and plan a sound empirical study, and will have the basic skills they need to handle the most common data analysis situations in basic psychology research.

Tentative schedule (lab topic in parentheses):

No lab classes before 10th February!

Week 1 – Recap of Research Methods for Psychology - I (Recap)

Week 2 – Two-way between subjects ANOVA (Two-way between subjects ANOVA)

Week 3 – Sampling (Two-way between subjects ANOVA)

Week 4 – Two-way repeated measures ANOVA (Two-way repeated measures ANOVA)

Week 5 – Quasi-experiments, interventions, and longitudinal studies (Two-way repeated measures ANOVA)

Week 6 – Chi-square, and *revision for midterm* (Chi-square)

Week 7 – MIDTERM EXAM (no lab this week)

Week 8 – Higher-order designs (Three-way repeated measures ANOVA)

Week 9 – Survey design (Mixed ANOVA)

Week 10 – Qualitative methods (no labs this week, 23rd April)

Week 11 – Multiple regression (Multiple regression)

Week 12 – More concepts in multiple regression (Hierarchical regression)

Week 13 – Scientific writing (Moderated regression)

Week 14 (no class Monday, 19th May) – *Revision*

Assessment

Please note that the below information, regarding exams, is provisional and may change. I will send announcements before the exams to confirm the procedures and requirements.

There are three ways to earn points: midterm, final, and lab attendance. You can also earn bonus points by participating in staff research studies – these bonus points are called *Research Points*.

Midterm exam (40%) – this will consist of short-answer questions. It will cover topics from Week 1 to Week 6. The midterm will happen in our regular lecture time, in Week 7; i.e., at **10:40 on 24th March**.

Final exam (50%) – this will also consist of short-answer questions. It will cover topics from Week 8 to Week 14, but bear in mind that these topics are based on, and build upon, the earlier topics. The final will happen during the University's scheduled finals period.

Lab attendance (10%) – your attendance to your weekly lab session is mandatory; new information will be taught during lab sessions, and you will practice crucial computer

skills which we cannot assess during the exams. You therefore receive points based on your lab attendance.

Research Points – Students can optionally serve as participants in research that is run by Sabanci University researchers. By participating in research, you can get extra points. For this course, you will be able to earn up to 16 Research Points (1 Point equals up to 30 minutes of research participation). These 16 Research Points will be converted to 8 percentage points added to your overall total at the end of the semester.

You will be able to sign up for the experiments and get your research participation credits through the online Sona system at <http://sabanciuniv.sona-systems.com>. Please carefully read the *Guide for Students: Sabanci University Research Points System (Sona)*, available on the PSY304 SUCourse, on the ‘Syllabus’ page.

Study participation is entirely voluntary. Research Points are bonus points, you can still get 100% on your course without participating at all. If you wish to earn bonus points but do not want to participate in studies, each study has an alternative bonus homework assignment you can do, worth the same number of Research Points. Please ask the ‘PI’ (Principle Investigator) of that particular study for details. Each study’s PI is indicated on the Sona page for that study.