PSY 202 – Research Methods and Statistics for Psychology I

Course Syllabus – Spring Semester 2023 (Updated April)

Instructor: Dr Rob Booth   **Email**: robertbooth@sabanciuniv.edu   **Office**: Just email me!

Class Hours: Tue 11:40-13:30; Thu 11:40-12:30 (you also have one lab hour, on Fridays)

Teaching Assistants (Friday lab sections): Büşra Temur (busra.temur@sabanciuniv.edu)
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We may have to revise the course plan according to reassessments which may be made country-wide, regarding higher education, during the semester. 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.

Welcome! In this course, we will learn the basics of scientific method, and basic data analysis. I am not going to assume you know any science, any statistics, or even very much maths. By the end of the course, you should be able to plan, design, and execute simple research projects, and analyse your own data, with little or no supervision. We have students in this course from a variety of backgrounds, interests, and majors; the beauty of the scientific method and statistics is that they're always the same, no matter what you're studying. They also come in very handy in everyday life, especially in the business world, and some of the practical skills you will learn on this course can go right onto your CV.

Tentative schedule (Friday lab topic in parentheses)**:**

Week 1 – Introduction to the scientific method (entering data into SPSS)

Week 2 – Types of research, terminology, and experimental design (recoding and computing variables)

Week 3 – Types of variables, descriptive statistics, and the normal distribution (descriptive

statistics)

Week 4 – Introduction to null hypothesis significance testing, and the independent samples *t*-

test (independent samples *t*-test)

Week 5 – Between subjects vs. within subjects designs (paired samples *t*-test)

Week 6 – Between subjects one-way ANOVA, and revision for midterm

(between subjects one-way ANOVA)

Week 7 – MIDTERM EXAM (no lab this week)

Week 8 – Post hoc and a priori testing (post hoc and a priori testing)

Week 9 – Manipulation, measurement, and control (post hoc and a priori testing)

Week 10 – Repeated measures one-way ANOVA (one-way repeated measures ANOVA)

Week 11 – Research ethics (one-way repeated measures ANOVA)

Week 12 – Correlation (correlations)

Week 13 – Effect size, confidence intervals, and power (effect size and confidence intervals)

Week 14 – *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*. I shall use the standard Sabanci University grade catalogue, you can find a copy of this on the syllabus page of our SUCourse.

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 11:40 on 11th April.

The midterm will be conducted online, using the SUCourse platform. You will also join our regular Zoom class so that you can be proctored during the exam. The exam is closed-book, you may NOT use notes, the internet, or any other assistance. After the exam, I may ask you to attend a one-on-one oral exam over Zoom, to allow me to check your knowledge.

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 10 Research Points (1 Point equals up to 30 minutes of research participation). These 10 Research Points will be converted to 5 points added to your overall total at the end of the semester. More information on the available research projects will be provided during 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: Sabancı University Research Points System (Sona)*, available on the PSY202 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.