PSY 202 – Research Methods and Statistics for Psychology I

Course Syllabus – Fall 2023 *(Updated September)*

Instructor: Olesya Blazhenkova

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Office (1074B) hours: By appointment or Tuesday between 16:40 and 17:30.

Class Hours: Tue 10:40-12:30; Thu 12:40-13:30 (you also have one lab hour, on Fridays)

Teaching Assistants (Friday lab sections):

Büşra Temur (busra.temur@sabanciuniv.edu) – LAB Coordinator

Kerem Besim Durbin (besim.durbin@sabanciuniv.edu) – SU COURSE Coordinator

Ahmet Burhan Bağlar (burhan.baglar@sabanciuniv.edu) – EXAMS Coordinator

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Welcome! In this course, you will learn the basics of scientific methods, and basic data analysis. By the end of the course, you should be able to plan, design, and execute simple research projects, and analyze 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 – General course introduction. Introduction to the scientific method. Scientific study of behaviors. Entering data to the datafile. (Entering data to SPSS).

Week 2 – Types of research, 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 – MIDTERM EXAM 1. Between subjects vs. within subjects designs (Paired samples *t*-test).

Week 6 – Between subjects one-way ANOVA (Between subjects one-way ANOVA)

Week 7 – Post hoc and a priori testing (Post hoc and a priori testing)

Week 8 – Manipulation, measurement, and control (Post hoc and a priori testing)

Week 9 – MIDTERM EXAM 2. Repeated measures one-way ANOVA (One-way repeated measures ANOVA)

Week 10 – Research ethics (One-way repeated measures ANOVA)

Week 11 – Correlation (Correlations)

Week 12 – Effect size, confidence intervals, and power (Effect size and confidence intervals)

Week 13 – MIDTERM EXAM 3. (Individual Research Projects).

Week 14 – Individual Research Projects presentations (no lab this week).

Note: Course content, requirements and policies are subject to change at the discretion of the instructor. Changes will be posted on SU COURSE.

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 3 ways to earn points: exams, research presentations, and lab attendance. You can also earn bonus points by participating in staff research studies – these bonus points are called *Research Points*.

Exams (80%). There will be no final exam, instead, there will be 3 midterm exams (25, 25, 30 % each) – they will consist of short-answer questions. The midterms will happen in our regular class time, on Tuesdays. These exams are 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, to allow me to check your knowledge.* Students who fail to show up for any of the exams indicated in the Syllabus without a valid excuse and not taking the make-up examinations for such exams will receive N/A as their final grade. Make-up policy is strict. If you have an official excuse (e.g., medical) for missing an exam, present the report within a week after the exam. The format of make-up exams or assignments may or may not match the original exam. *All make-ups are given at the end of the semester (the date TBD).*

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.

Individual Research Projects (10%). You will conduct a simple research study related to your research interests, using statistical data analysis methods taught in the class. You will be able to get feedback and help from TAs during your research process and must present the results in the last week of classes.

Research Bonus Points (up to 5%). 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. *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.

Conversion to letter grades

A	93-100
A-	86-92
B+	80-85
B	75-79
B-	70-74
C+	65-69
C	60-64
C-	55-59
D+	50-54
D	45-49
F	0-44