**Statistics-I**. First Continuous Evaluation, 2021/2022

A group of researchers wanted to examine whether wearing sunglasses in a picture makes the individuals less trustworthy and whether this effect differs for men and women. To test this issue, the researchers recruited 200 university students. Randomly, 100 participants (50 identified as men and 50 as women) were presented with a man wearing a sunglasses profile. The other 100 (50 identified as men and 50 as women) were presented with the profile of the same individual wearing regular glasses. The researchers measured the degree of trustworthiness of the individual in the profile on a 1-10 Likert scale.

Question 1

(a) Which are the independent and dependent variables in the study? Justify your answer.

(b) How many rows and columns will we have in the JASP file?

Question 2

(a) Is this a between-subjects design, a within-subject design, or a mixed design? Justify your answer.

(b) Let’s assume that the individuals wearing sunglasses were rated as less trustworthy than those wearing regular glasses. Can you think of a follow-up study to further study this issue? Justify your choice.

We have the following data file (<https://www.uv.es/mperea/rLAS.jasp>) in which several psychological and demographic variables of the participants of a study (extroversion in two sessions, friendliness, age, sincerity, type of high-school [public, religious]) are collected.

QUESTION 3. We want to know which cutoff separates the 15% of students with a very high level of neuroticism—note that this information may be important for psychological counseling. Which one is this cutoff? Justify your answer (Copy/Paste from JASP)

QUESTION 4. We want to do run the following analysis **only** with those students older than 15 y.o. Is the remaining sample well balanced in terms of the students coming from “public” vs. “religious” centers? Justify your answer (Copy/Paste from JASP)