

## BIO3502 Introduction to Biostatistics

### Final Project (Mandatory)

**Project Description:** We will use a dataset collected by yourself or a large-scale published data for statistical analysis. In this data set, there are three types of data should be used at least. If you or your team decide to collect a set of local data, the topic need to be related with the daily life, such as study/work, of the students or teachers at SJTU. If you or your team decide to use a public dataset, the candidate paper list is attached, in which you may download the data according to the academic paper. Also, three types of data should be selected from the public dataset at least. **You are expected to use part of or whole data set to answer two biological questions using the statistical methods you have learned in our class. Descriptive statistics and two different hypothesis testing methods should be applied at least.**

Attached is a file of the candidate paper list. You may choose one of them for your project.

**Requirements for Submission:** The project report will include a written report (2-4 pages A4 size paper, a font size of 10pt, 1.5 spaced) and an oral report (<6 minutes recorded video). Source code is also required for validation purpose. The written report can be written in English or Chinese.

**Submission Deadline:** Submit your report, recorded video and source code through canvas. Submission is due at the end of week 18 (23:59 GMT+0800 January 15th, 2023). Submission is allowed to be overdue for up to 3 days (23:59 GMT+0800 January 18th, 2023) with a penalty of points.

**Grading:** Total grade of this project will be 100 points (60 pts for the written report, and 40 pts for the oral report).

**For the written report, the following factors will be considered:**

1. Biological question and the proposed hypothesis for testing
2. Suitable statistical methods
3. Results presentation
3. Writing
4. Discussion on results

**For the oral report, the following factors will be considered:**

1. Clarity of slides
2. Presentation
3. Interpretation of results

**Notes:** Students are encouraged to form a team of two or more members (at most three), and submit a report for the whole team instead of a report for each individual. However, you have to describe the contribution of each individual in the report if you choose to work as a team.

**Important Notice:**

Please do not duplicate complete sentence(s)/paragraph(s), figures, and tables from publicly available sources without citation, which would cause a potential risk of plagiarism. If it is necessary to do so, please mark the duplication and cite the source.