

## **2704 Project Proposal**

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**Dataset:** <https://www.kaggle.com/datasets/steve1215rogg/student-lifestyle-dataset>

**GitHub Repository:** <https://github.com/Taryn-Cail/Python-Group-Project-2704>

**Background:** Students' academic success (GPA) is linked to various features such as the amount of studying (hours per week) they perform. We wish to prove that students that study more have a higher academic performance.

**Null Hypothesis:** There is no correlation between students' amount of studying and their academic performance.

**Alternative Hypothesis:** The higher the amount of studying, the higher the student's academic performance will be.

**Plan for Testing the Hypothesis:** Based on the dataset, we will construct various graphs and visuals to correlate the level of academic performance (GPA) and how they relate to studying (hours per day). This will include a correlation graph, a heatmap, a histogram and other various graphs. We will also conduct a P-Value test to determine whether our hypothesis is accepted or rejected. A predictive model will also be constructed in order to feed it future data and predict possible academic performance based on the students studying time.