



University of Cape Town Students Marks Analysis

This detailed analysis examines the academic performance of students at the University of Cape Town, providing insights and recommendations to help improve student success rates.

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A man with a beard and glasses is sitting at a desk, working on a laptop. The background is a dark, stylized illustration of an office or data center. There are various charts and graphs floating in the air, including a pie chart, a bar chart, and a line graph. A potted plant is on the desk to the left of the man. The overall color scheme is dark blue and black with white text.

Data Cleaning and Column Renaming

The analysis begins with a thorough data cleaning process, ensuring accurate representation of the university's student performance data. Key steps include renaming columns to improve clarity and addressing any missing or inconsistent values.

Total Number and Percentage of Passing Students

1

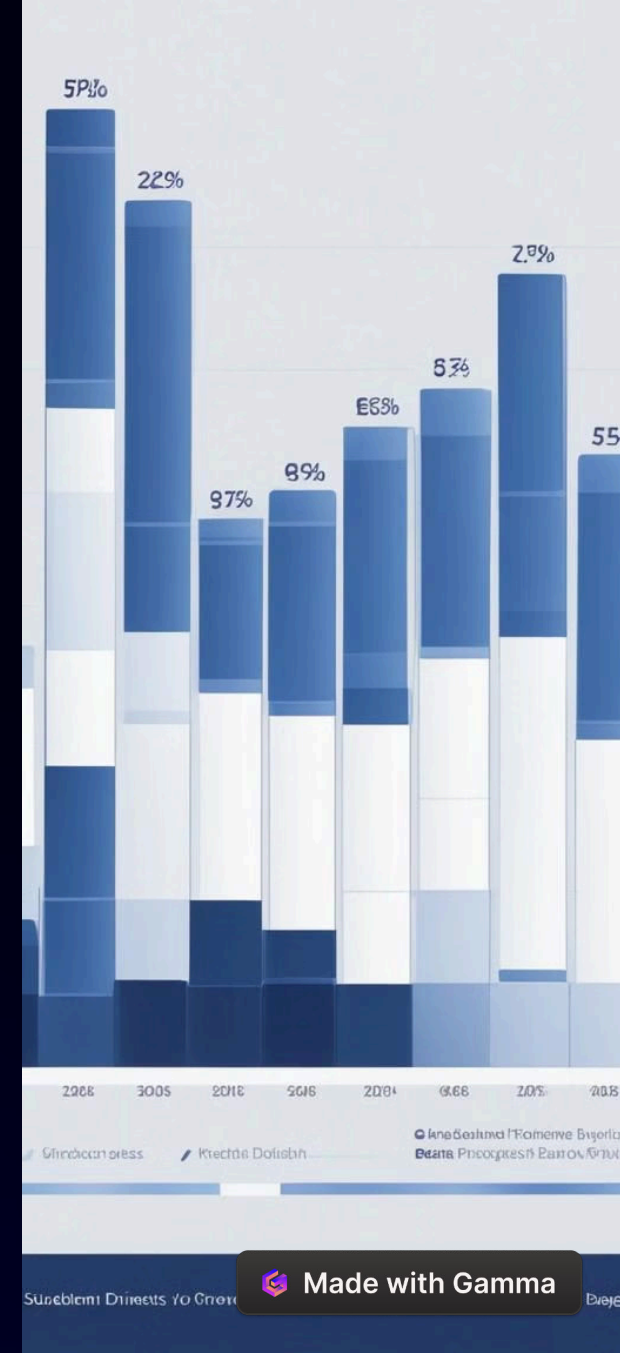
2015-2019

The analysis reveals a declining trend in the percentage of students passing both 1st and 2nd-year courses in the same year, dropping from 80.73% in 2015 to 68.25% in 2019.

2

2020-2022

In 2020, the pass rate increased significantly to 83.59%, but then dropped sharply to just 43.48% in 2021 before recovering to 64.58% in 2022.



Pass Rate for 1st and 2nd Year Courses

1st Year Courses

The pass rates for 1st-year courses have fluctuated, ranging from a high of 81.67% in 2015 to a low of 50% in 2021.

2nd Year Courses

The pass rates for 2nd-year courses have been more consistent, with a high of 85.08% in 2020 and a low of 37.94% in 2021.

Comparison

The data suggests that students tend to perform better in 1st-year courses compared to 2nd-year courses, indicating potential challenges in the transition to more advanced material.

Students Failing B1 Despite Passing A1 or A2

1 Passing A1 or A2, Failing B1

The analysis reveals that 422 students passed their 1st-year courses (A1 or A2) but then failed the 2nd-year course B1.

2 Potential Reasons

This suggests a disconnect between the skills and knowledge required for 1st-year and 2nd-year courses, which should be further investigated.

3 Need for Intervention

Identifying the root causes and implementing targeted support for these students could significantly improve their overall academic performance.

Minimum Marks for Passing B1

Recommendation

Based on the analysis, the minimum marks required in 1st-year courses (A1 and A2) to successfully pass B1 is an average of 74%.

Rationale

This recommendation is derived from the performance of students who passed both their 1st-year and 2nd-year courses, providing a benchmark for future students.

Implications

Implementing this minimum mark requirement could help improve student success rates and better prepare them for the challenges of the 2nd year.



Minimum Marks for Passing B2

1

B1 Performance

The analysis indicates that students need an average of 67% in B1 to successfully pass B2.

2

Progression

This suggests that building a strong foundation in the 2nd-year courses is crucial for advancing to the 3rd year.

3

Recommendation

The university should consider implementing this minimum mark requirement to support student success in the later stages of their studies.

Prospects for Students with Supplementary Exams



15 Students

The analysis found that 15 students who had supplementary exams in their 1st-year courses were still able to progress to the 2nd year without failing B1 or B2.



Opportunity

This suggests that there is hope for students who struggle in their initial 1st-year courses, and that with the right support, they can still succeed in their studies.



Further Analysis

The university should continue to monitor the progress of students with supplementary exams and explore ways to provide targeted assistance to help them overcome academic challenges.