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Telling Stories Using Data

The Case of "Know Your Course/Students" Report (KYCS)

By:

- Dimakatso Sebothoma
- Jaamia Galant

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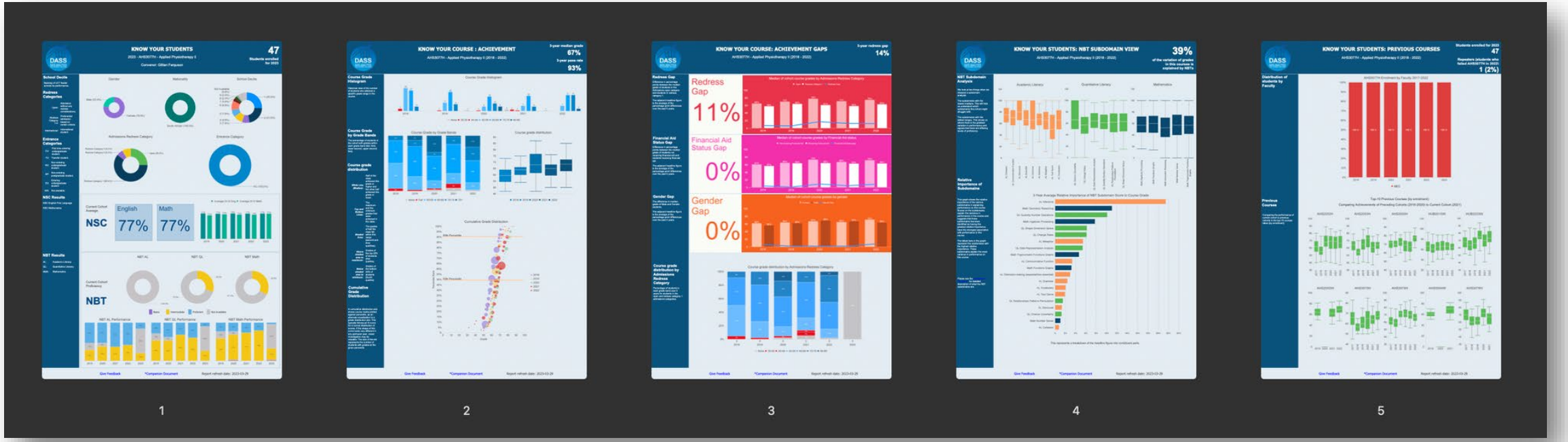
Know Your Course/Students Report (KYCS)



About DASS

- DASS: CHED, ICTS, IPD
- WIGs
- Meetings: DASS weekly and DASSC quarterly

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Development Phases of the Reports

- 2021: First report sent
- 2022: Achievement Gap
- Sem 2 2022: NBT diagnostics
- Sem 1 2023: A new postgraduate version

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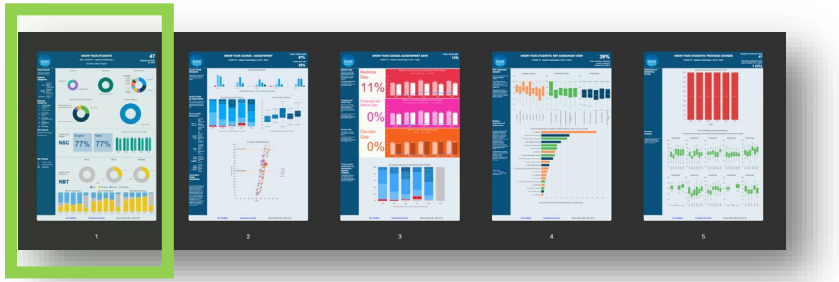
Feedback received

- Report Feedback Link
- Faculty Road Show (university wide visibility)
- Invited Visualisation Expert from Department of Computer Science (Prof. Michelle Kuttel)

- Future Plans

- Faculty dashboards



Know Your Students (p. 1)

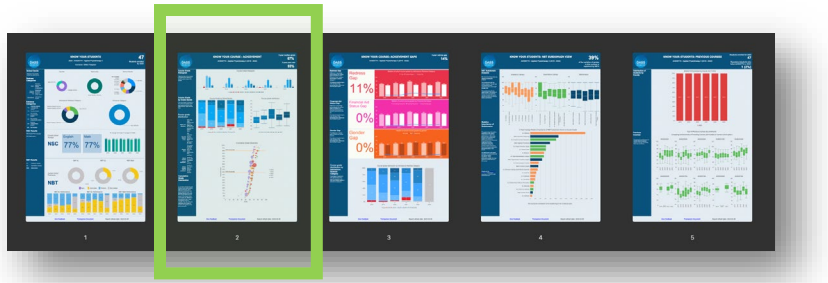
Gender, Nationality

School Decile

Redress Category

Entrance Category

NSC, NBT



Achievement (p. 2)

Course Grade Histogram

Course Grade by Grade Bands

Course Grade Distribution

Cumulative Grade Distribution

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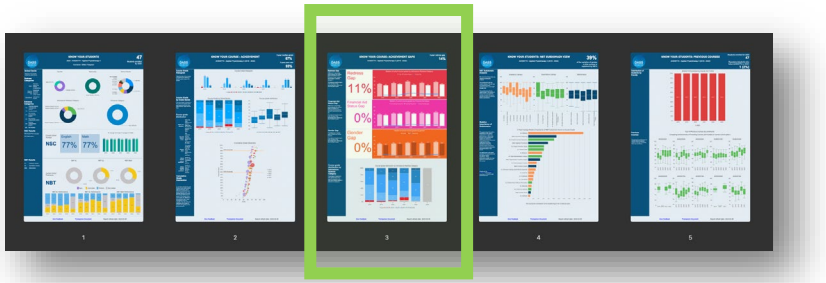

Achievement Gap (p. 3)

Redress Gap

Financial Aid Status Gap

Gender Gap

Course grade distribution by Admissions Redress Category

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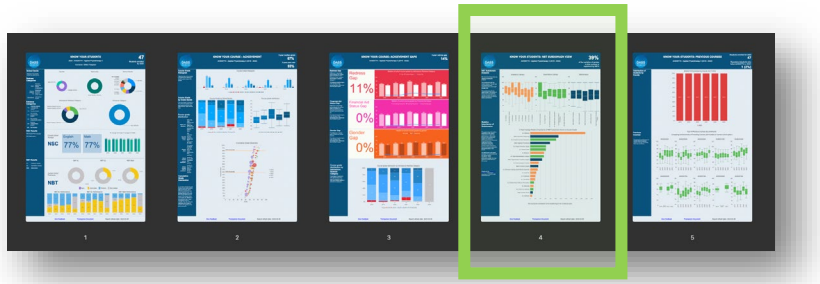

Diagnostics (p. 4)

Subdomain analysis of students' NBT results

Relative importance of subdomains

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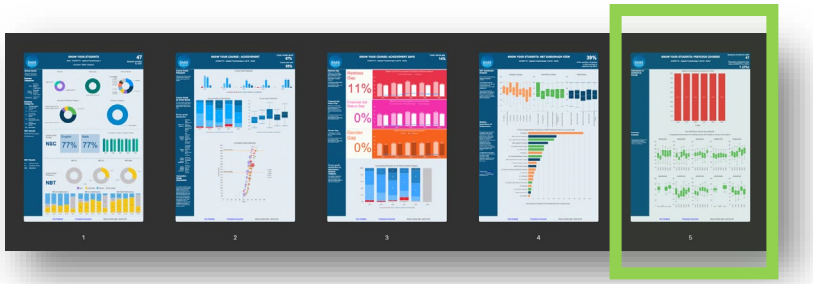


Previous Students (p. 5)

Distribution of students by faculty

Comparing the performance of previous cohorts

Know Your Students

KNOW YOUR STUDENTS
COM UG Course

1,051
Students enrolled for 2023

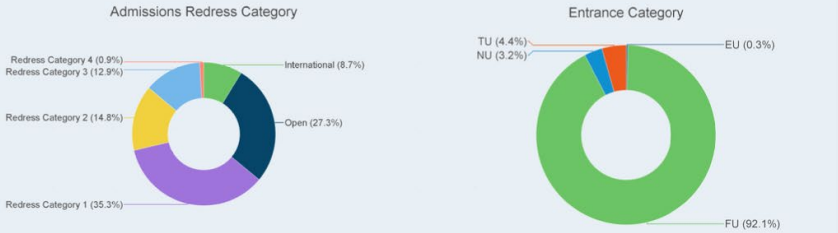
School Decile
Ranking of UCT feeder schools by performance.

Redress Categories
- *Open:* Admission without any redress considerations.
- *Redress Category 1-4:* Preferential admission based on certain criteria.
- *International:* International student.

Entrance Categories
- *FU:* First time entering undergraduate student.
- *TU:* Transfer student.
- *NU:* Non-entering undergraduate student.
- *NP:* Non-entering postgraduate student.
- *EU:* Entering undergraduate student.
- *N/A:* Not available.

NSC Results
NSC English First Language
NSC Mathematics

NBT Results
- *AL:* Academic Literacy
- *QL:* Quantitative Literacy
- *Math:* Mathematics



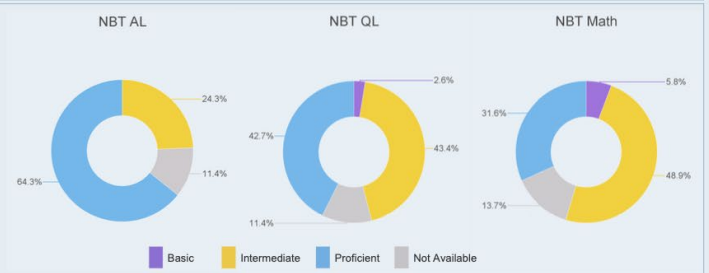
Current Cohort Average

NSC

English	Math
70%	74%

Current Cohort Proficiency

NBT



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KNOW YOUR STUDENTS
HUM UG Course

1,040
Students enrolled for 2023

School Decile
Ranking of UCT feeder schools by performance.

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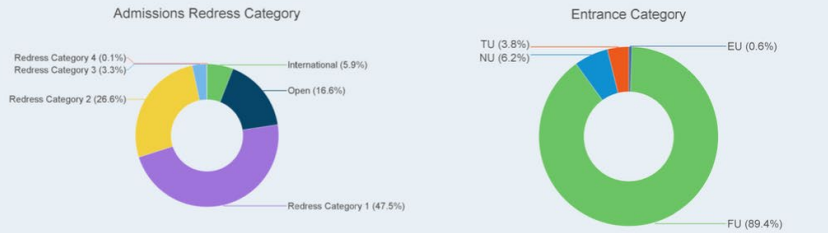
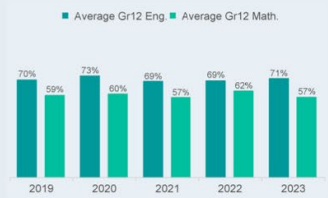


Current Cohort Average

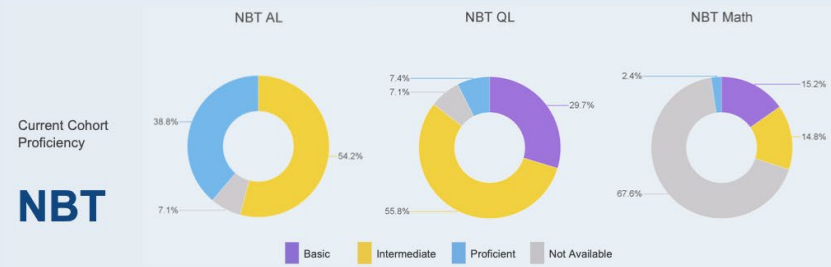
NSC

English	Math
71%	57%



Current Cohort Proficiency

NBT



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Know Your Course: Achievement

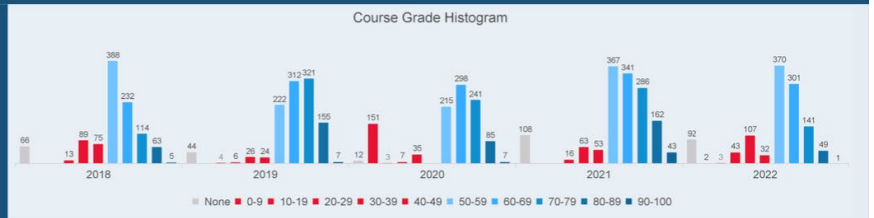
KNOW YOUR COURSE : ACHIEVEMENT

COM UG Course

3-year median grade
62%
3-year pass rate
80%

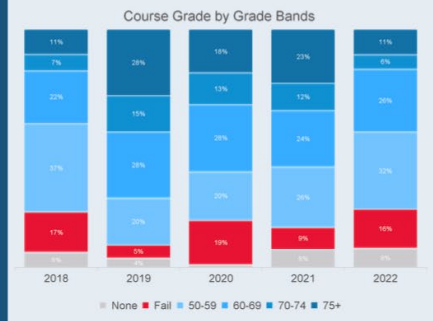
Course Grade Histogram

Historical view of the number of students who attained a specific grade range in the course.

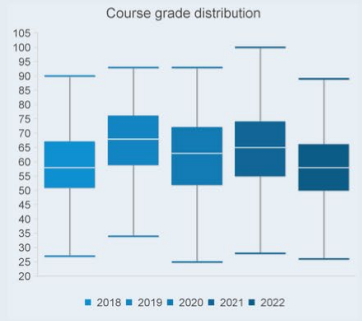


Course Grade by Grade Bands

The percentage of students in the cohort with grades within each grade band (fail, third, lower second, upper second, first).



Course grade distribution



White Line (Median): Half of the class achieved this grade or higher and the other half achieved this grade or lower.

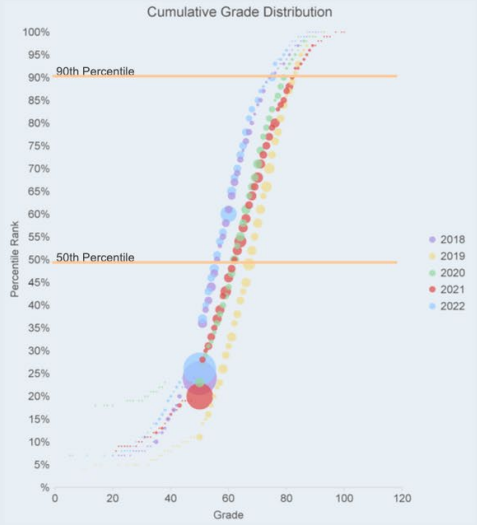
Top and Bottom Lines: The maximum and the minimum grades that were achieved in the class.

Shaded Area: The grades of half the class fall within this range (second and third quartiles).

Above shaded area to maximum: Grades of the top 25% of students (first quartile).

Below shaded area to minimum: Grades of the bottom 25% of students (fourth quartile).

Cumulative Grade Distribution



A cumulative distribution plot shows course marks plotted against percentile, as an alternate visualization to a grade distribution plot. This typically follows an S-curve for a normal distribution of scores. If the shape of this curve looks very different in any particular year, closer investigation may be valuable. The size of the dot represents the number of students with grades at the given percentile.

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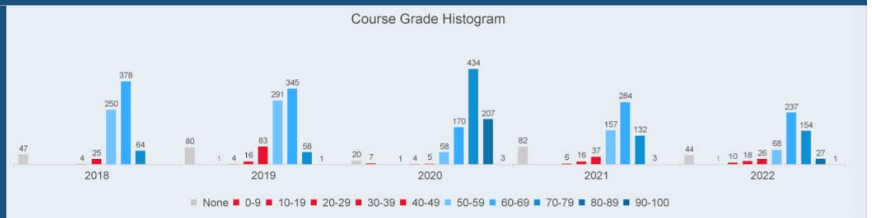
KNOW YOUR COURSE : ACHIEVEMENT

HUM UG Course

3-year median grade
68%
3-year pass rate
86%

Course Grade Histogram

Historical view of the number of students who attained a specific grade range in the course.



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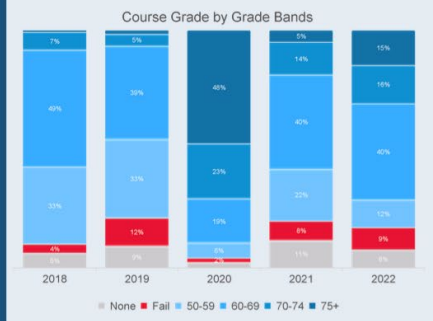
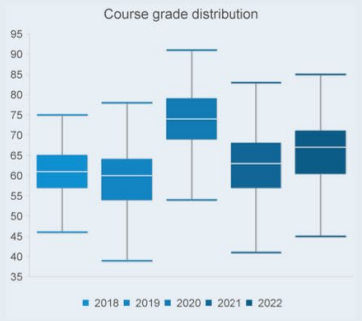


Course grade distribution



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Know Your Course: Achievement Gap

KNOW YOUR COURSE: ACHIEVEMENT GAPS

COM UG Course

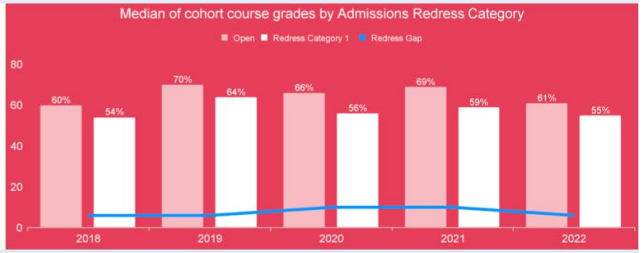
9%
3-year redress gap

Redress Gap

Difference in percentage points between the median grade of students in the Admissions open category and students in redress category 1.

The adjacent headline figure is the average of the percentage point differences over the past 5 years.

Redress Gap **8%**

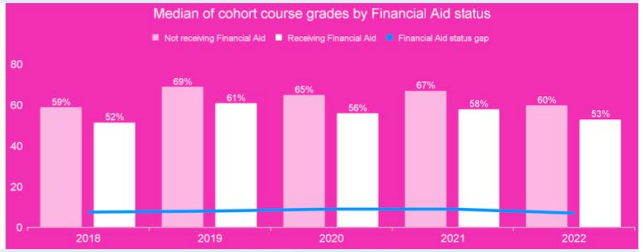


Financial Aid Status Gap

Difference in percentage points between the median grade of students not receiving financial aid and students receiving financial aid.

The adjacent headline figure is the average of the percentage point differences over the past 5 years.

Financial Aid Status Gap **8%**

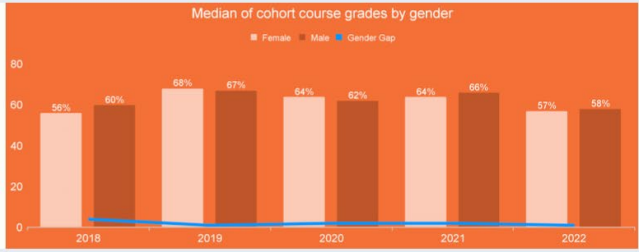


Gender Gap

The difference in median grade of Male and Female students.

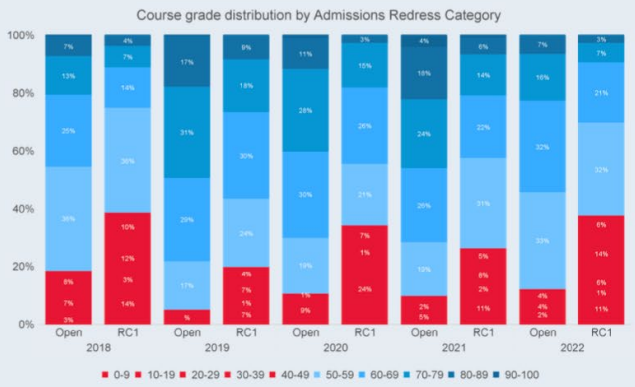
The adjacent headline figure is the average of the percentage point differences over the past 5 years.

Gender Gap **2%**



Course grade distribution by Admissions Redress Category

Percentage of students in each grade band over 5 years for students in the open and redress category 1 admissions categories.



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KNOW YOUR COURSE: ACHIEVEMENT GAPS

HUM UG Course

5%
3-year redress gap

Redress Gap

Difference in percentage points between the median grade of students in the Admissions open category and students in redress category 1.

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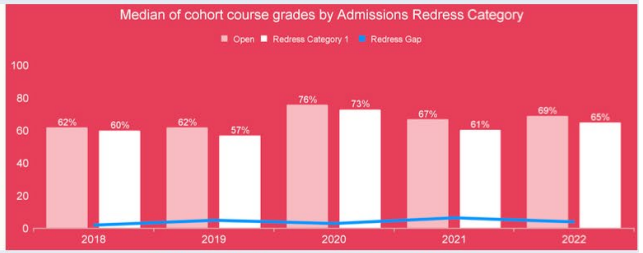
Redress Gap **4%**



Financial Aid Status Gap

Difference in percentage points between the median grade of students not receiving financial aid and students receiving financial aid.

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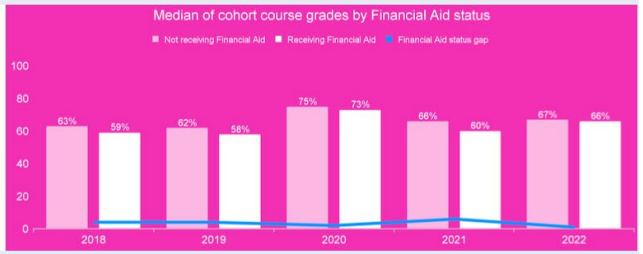
Financial Aid Status Gap **3%**

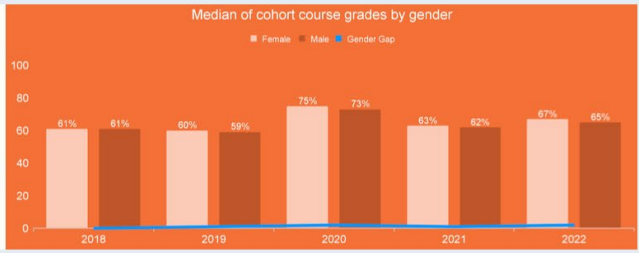


Gender Gap

The difference in median grade of Male and Female students.

The adjacent headline figure is the average of the percentage point differences over the past 5 years.

Gender Gap **1%**



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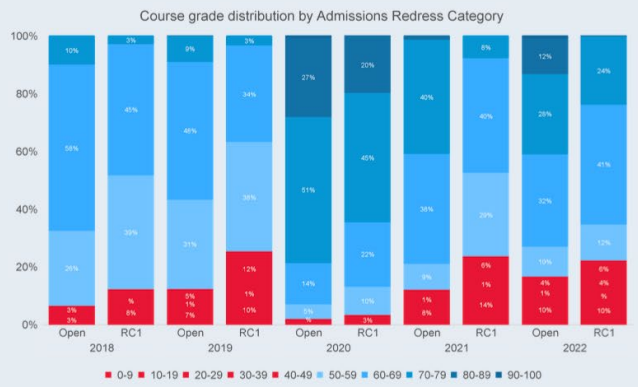

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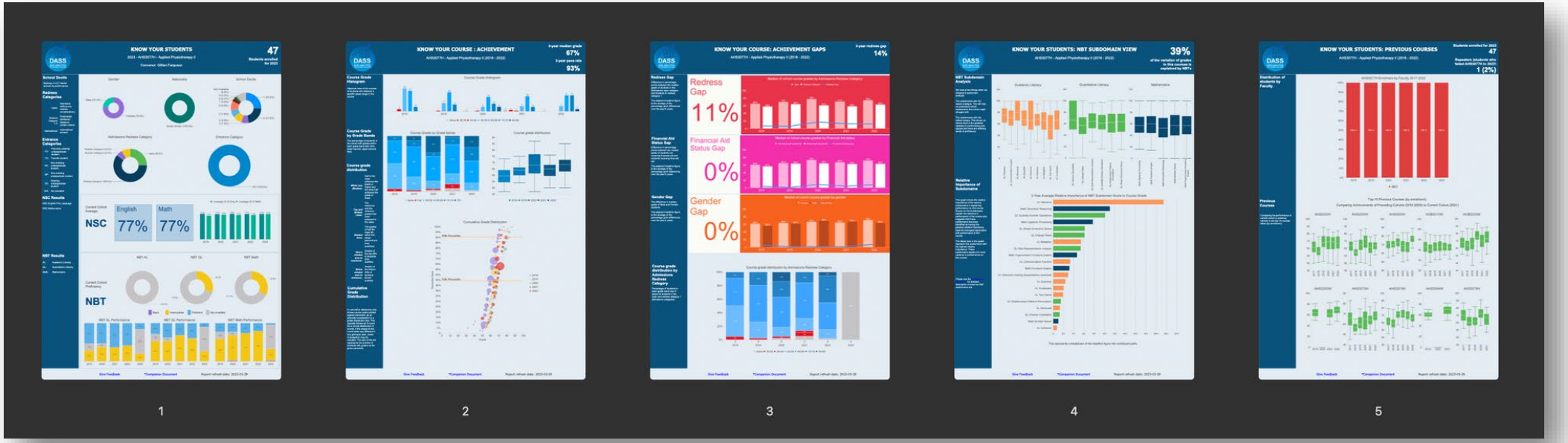
Thank You

dass@uct.ac.za



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