The University of Auckland Planning Unit has conducted an analysis of the NCEA results of school leavers starting an undergraduate programme between 2014, Semester One and 2016, Semester One. With the curriculum changes introduced between 2011 and 2013, the mathematical preparation of school leavers arriving at the University of Auckland has become more diverse. Given the greater variety in preparation, a need was identified for extra guidance to ensure students select the Stage I Mathematics course for which they have the appropriate preparation. Too many students were selecting courses for which their preparation was inadequate, leading to higher failure rates that reflected incorrect choice of Stage I course rather than student intellectual capacity.

The aim of the analysis was to identify which Level 3 NCEA achievement standards were key indicators of success in Stage I Mathematics courses. The grade achieved in these standards was also important, with students requiring a Merit or Excellence grade to ensure at least an 80% chance of success. This does not mean that the content covered in the internally assessed achievement standards is in any way regarded as irrelevant for future studies at University. However, the distribution of results in Level 3 internally assessed standards did not provide any indication of likely performance in Stage I Mathematics courses.

The pathway diagram guides students through their choice of Stage I Mathematics courses dependent on their NCEA Level 3 studies and their overall Rank Score.

**Rank Score** – is calculated from a student’s best 80 credits with Excellence credits worth four points, Merit worth three points and Achieved worth two points. The minimum recommended Rank Score for those taking MATHS 108/110 is 210.

www.rankscorecalculator.auckland.ac.nz

MATHS 102 is intended for students whose mathematical preparation or confidence is insufficient to prepare them for MATHS 108, MATHS 110 or MATHS 150.

MATHS 108 is intended for students interested in Commerce or the computational sciences (e.g. Economics, Finance, Statistics, Computer Science).

MATHS 110 is intended for students interested in the natural sciences (e.g. Chemistry, Biology, Food Science and Nutrition).

MATHS 150 is intended for students interested in Applied Mathematics, Mathematics and/or Physics. Students interested in other majors but with the mathematical preparation for MATHS 150, should take MATHS 150 instead of MATHS 108/110. This course covers similar topics to MATHS 108/110, while giving students a stronger mathematical training and more options for further study.
MATHS 102 is intended for students whose mathematical preparation or confidence is insufficient to prepare them for MATHS 108, MATHS 110 or MATHS 150.

MATHS 108 is intended for students interested in Commerce or the computational sciences (e.g. Economics, Finance, Statistics, Computer Science)

MATHS 110 is intended for students interested in the natural sciences (e.g. Chemistry, Biology, Food Science and Nutrition)

MATHS 150 is intended for students interested in Applied Mathematics, Mathematics and/or Physics.

Passed both AS 3.6 (91578) and AS 3.7 (91579)

Passed AS 3.6 (91578) with Merit or Excellence grade

Rank score ≥ 210

Level 3 credits in Maths?

Rank score ≥ 250

Maths achievement standard pathways for success in Stage I University of Auckland Mathematics Courses.

POSSIBLE DEGREES – Arts, Commerce, Engineering and Science

Degree programme entry requirements also need to be met. For further advice please email ugadvice@math.auckland.ac.nz