Name of Subject: Mathematics Pathways (Business or Industry)

Stage: 1 (Year 11)

General information: In the study of Mathematics students participate in a wide variety of problem-solving activities. The subject gives students the abilities and skills required in the workplace and in everyday life. They learn how to approach new challenges by investigating, modelling, reasoning, visualising, and problem-solving with the goal of communicating to others the relationships observed and the problems solved. It can be studied as a 10-credit subject or a 20-credit subject, however, if students plan to pursue Mathematics Pathways at Stage 2, then they must complete a full year of Mathematics at Stage One. Stage 1 Mathematics Pathways allows students to achieve the numeracy requirement in the SACE. Students who achieve a C grade or better in this subject meet the compulsory 10-credit numeracy requirement.

Content: Topics are developed around the interests and needs of the students. The focus engages students with learning in contexts that are relevant to them. Topics can be a combination of school-developed topics and topics chosen from those listed in the Stage 1 Mathematics Subject Outline. The structure, content and assessment may be negotiated with the students, and there may be different focuses within any group. At Samaritan College, a selection from the following topics is taught:

- Topic 1: Earning and Spending
- Topic 2: Measurement
- Topic 3: Data in Context
- Topic 4: Networks and Matrices
- Topic 5: Saving and Borrowing
- Topic 6: Simulating Random Processes
- Topic 7: Statistics
- Topic 8: Trigonometry

Assessments: The following assessment types enable students to demonstrate their learning in Stage 1 Mathematics Pathways:

- Assessment Type 1: Skills and Applications Tasks (Tests)
- Assessment Type 2: Folio (Investigations)

Students provide evidence of their learning through four or five assessments per semester. Each assessment type should have a weighting of at least 20%. Students undertake:

- at least three skills and applications tasks
- at least one investigation for the folio per semester

All assessments are school based and subject to moderation.

Special Information: Students will need to use electronic technology in this course. Graphics and/or scientific calculators (Texas Instruments) are available for purchase through the College at the end of the academic year.

Preferred prerequisites: Year 10 Mathematics or a minimum C grade for Year 10 Mathematics Pathways.