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| Course Title: | **Mathematics for Computing** |
| Course Code: | **MATH503** |
| Descriptor Start Date: | **01/01/2021** |
| Descriptor End Date: | **30/01/2023** |
| POINTS: | **15.00** |
| LEVEL: | **5** |
| PREREQUISITE/S: | **None** |
| COREQUISITE/S: | **None** |
| RESTRICTION/S: | **None** |

## LEARNING HOURS

Hours may include lectures, tutorials, online forums, laboratories. Refer to your timetable and course information in Canvas for detailed information.

**Total learning hours: 150**

## PRESCRIPTOR

Provides an introduction to the mathematical and statistical concepts required for an understanding of the analysis of data and applications in computing. Topics include sets, functions, relations, matrix operations, probability, probability distributions and statistical measures.

## LEARNING OUTCOMES

1. Define matrices and perform matrix operations.
2. Evaluate functions and relations.
3. Use sets to solve problems involving logical thinking.
4. Calculate probabilities involving counting and identify basic probability distributions.
5. Compute and interpret basic statistical measures.

## CONTENT

- Functions, relations and sets
- Matrices
- Matrix operations
- Basic probability
- Probability distributions
- Statistical measures

## LEARNING & TEACHING STRATEGIES

Lectures will be used to present the material, with computer labs to support individual and practical group exercises.

## ASSESSMENT PLAN

| Assessment Event | Weighting % | Learning Outcomes |
|---|---|---|
| Portfolio | 30.00 | 1,2,3,4,5 |
| Assignment | 25.00 | 1,2,3,4,5 |
| Problem-Solving Questionnaire | 45.00 | 1,2,3,4,5 |

**Grade Map** **MAP1**

A+ A A- Pass with Distinction
B+ B B- Pass with Merit
C+ C C- Pass
D Fail

**Overall requirement/s to pass the course:**

To pass the course, the student needs to obtain a minimum grade of C- overall and have attempted the Problem Solving Questionnaire assessment event.

## LEARNING RESOURCES

Recommended reading lists, including library resources, will be provided.

**For further information, contact:** Te Ara Auaha - Faculty of Design & Creative Technologies

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| Principal Programme: | **AK3697, Bachelor of Computer and Information Sciences** |
| Related Programme/s: | **AK3003**<br>**AK3706** |