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# Mathematics Bridging Course Curriculum

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## **Module 1 – Introduction and overview**

Content:

- A brief general introduction into mathematics. Particularly concentrate on what makes mathematics at university different from the way mathematics is taught to students in school. Also clarifying important terms (definition, proof, theorem, ...)
- An overview of the various fields of mathematics; also why we chose the following topics.

Duration: Approximately 3 units (3x45 minutes)

## **Module 2 – Basic concepts**

Content:

- Logic and sets
- Geometry
- Vectors
- Linear and quadratic equations
- Introduction to functions

Duration: Approximately 7 units (7x45 minutes)

## **Module 3 – Functions**

Content:

- Linear and quadratic functions
- Exponential and logarithmic functions
- Trigonometric functions
- Limits, derivatives and integrals

Duration: Approximately 5 units (5x45 minutes)

## **Module 4 – Tools for real life**

Content:

- Probability
- Statistics

Duration: Approximately 3 units (3x45 minutes)