

First Year
Mathematics & Mathematical Studies (Science)
by Graham Ellis

First Year
Mathematics & Mathematical Studies (Science)
by Graham Ellis

- Mathematics -vs- Mathematical Studies (Science)

First Year
Mathematics & Mathematical Studies (Science)
by Graham Ellis

- Mathematics -vs- Mathematical Studies (Science)
- This year -vs- previous years

First Year
Mathematics & Mathematical Studies (Science)
by Graham Ellis

- Mathematics -vs- Mathematical Studies (Science)
- This year -vs- previous years
- University -vs- school

Mathematics -vs- Mathematical Studies (Science)

Mathematics -vs- Mathematical Studies (Science)

MA180 Mathematics is for

- those in BSc Science who want to keep a maths option open and have at least an **H5** or **O1** in LC maths,
- and for those in BSc Mathematical Science or BSc Financial Maths & Economics.

Mathematics -vs- Mathematical Studies (Science)

MA180 Mathematics is for

- those in BSc Science who want to keep a maths option open and have at least an **H5** or **O1** in LC maths,
- and for those in BSc Mathematical Science or BSc Financial Maths & Economics.

Choose *MA161 Mathematical Studies (Science)* if you are sure you won't continue with maths after 1st year or if you don't have an **H5** or **O1**.

Mathematics -vs- Mathematical Studies (Science)

MA180 Mathematics is for

- those in BSc Science who want to keep a maths option open and have at least an **H5** or **O1** in LC maths,
- and for those in BSc Mathematical Science or BSc Financial Maths & Economics.

Broad introduction to calculus and algebra with modern applications. 4 lectures and 1 staff-led tutorial per week.

*Choose MA161 Mathematical Studies (Science) if you are sure you won't continue with maths after 1st year or if you don't have an **H5** or **O1**.*

Mathematics -vs- Mathematical Studies (Science)

MA180 Mathematics is for

- those in BSc Science who want to keep a maths option open and have at least an **H5** or **O1** in LC maths,
- and for those in BSc Mathematical Science or BSc Financial Maths & Economics.

Broad introduction to calculus and algebra with modern applications. 4 lectures and 1 staff-led tutorial per week.

Choose MA161 Mathematical Studies (Science) if you are sure you won't continue with maths after 1st year or if you don't have an **H5** or **O1**.

Focused introduction to calculus and algebra. 4 lectures and 1 student-led tutorial per week.

Some GY301 Science Pathways

For a BSc in:	MA180	MA161	CS102	MP180
Mathematics	✓			
Mathematics & Computing	✓		✓	
Mathematics & Applied Mathematics	✓			✓
Math Studies & Computing		✓	✓	
Data Science	✓		✓	
Computing		✓		
Applied Mathematics				✓

This year -vs- previous years

This year -vs- previous years

- Syllabi for MA180 and MA161 *unchanged*.

This year -vs- previous years

- Syllabi for MA180 and MA161 *unchanged*.
- Quantity and nature of homeworks for MA180 and MA161 *unchanged*.

This year -vs- previous years

- Syllabi for MA180 and MA161 *unchanged*.
- Quantity and nature of homeworks for MA180 and MA161 *unchanged*.
- Weekly staff-led workshop (on campus) for MA180 *unchanged*.

This year -vs- previous years

- Syllabi for MA180 and MA161 *unchanged*.
- Quantity and nature of homeworks for MA180 and MA161 *unchanged*.
- Weekly staff-led workshop (on campus) for MA180 *unchanged*.
- Venues for the 4-weekly lectures for MA180 and MA161 *changed* from lecture theaters to live online delivery, recorded to allow for repeated viewing.

This year -vs- previous years

- Syllabi for MA180 and MA161 *unchanged*.
- Quantity and nature of homeworks for MA180 and MA161 *unchanged*.
- Weekly staff-led workshop (on campus) for MA180 *unchanged*.
- Venues for the 4-weekly lectures for MA180 and MA161 *changed* from lecture theaters to live online delivery, recorded to allow for repeated viewing.
- 2-hour end of semester exam for MA180 and MA161 *changed* to two 1-hour class quizzes.

This year -vs- previous years

- Syllabi for MA180 and MA161 *unchanged*.
- Quantity and nature of homeworks for MA180 and MA161 *unchanged*.
- Weekly staff-led workshop (on campus) for MA180 *unchanged*.
- Venues for the 4-weekly lectures for MA180 and MA161 *changed* from lecture theaters to live online delivery, recorded to allow for repeated viewing.
- 2-hour end of semester exam for MA180 and MA161 *changed* to two 1-hour class quizzes.
- Weekly student-led tutorial (on campus) for MA161 *may change* to a fortnightly tutorial.

University mathematics -vs- school mathematics

University mathematics -vs- school mathematics

- Class size is much larger, and the lecturer probably won't get to know your name!

University mathematics -vs- school mathematics

- Class size is much larger, and the lecturer probably won't get to know your name!
- But you can get some "school like" support from S.U.M.S.

University mathematics -vs- school mathematics

- Class size is much larger, and the lecturer probably won't get to know your name!
- But you can get some "school like" support from S.U.M.S.
- The algebra topics will be very new to you.

University mathematics -vs- school mathematics

- Class size is much larger, and the lecturer probably won't get to know your name!
- But you can get some "school like" support from S.U.M.S.
- The algebra topics will be very new to you.
- You'll have met the calculus topics in school - but they'll be covered more rigorously in university, and with more applications.

University mathematics -vs- school mathematics

- Class size is much larger, and the lecturer probably won't get to know your name!
- But you can get some "school like" support from S.U.M.S.
- The algebra topics will be very new to you.
- You'll have met the calculus topics in school - but they'll be covered more rigorously in university, and with more applications.
- *MA161 Mathematical Studies* only covers mathematical topics needed in other Science pathways.

University mathematics -vs- school mathematics

- Class size is much larger, and the lecturer probably won't get to know your name!
- But you can get some "school like" support from S.U.M.S.
- The algebra topics will be very new to you.
- You'll have met the calculus topics in school - but they'll be covered more rigorously in university, and with more applications.
- *MA161 Mathematical Studies* only covers mathematical topics needed in other Science pathways.
- *MA180 Mathematics* covers similar topics in a more rigorous fashion, and is aimed at students who eventually want to learn about current research in mathematics.

A Taste of MA180 Algebra

A Taste of MA180 Algebra

What do the following have to do with algebra?



ISBN

$$1x_1 + 2x_2 + 3x_3 + 4x_4 + 5x_5 + 6x_6 + 7x_7 + 8x_8 + 9x_9 + 10x_{10}$$

ISBN

$$1x_1 + 2x_2 + 3x_3 + 4x_4 + 5x_5 + 6x_6 + 7x_7 + 8x_8 + 9x_9 + 10x_{10}$$

$$1 \times 8 + 2 \times 1 + 3 \times 7 + 4 \times 5 + 5 \times 2 + 6 \times 5 + 7 \times 7 + 8 \times 6 + 9 \times 6 + 10 \times 0$$

ISBN

$$1x_1 + 2x_2 + 3x_3 + 4x_4 + 5x_5 + 6x_6 + 7x_7 + 8x_8 + 9x_9 + 10x_{10}$$
$$1 \times 8 + 2 \times 1 + 3 \times 7 + 4 \times 5 + 5 \times 2 + 6 \times 5 + 7 \times 7 + 8 \times 6 + 9 \times 6 + 10 \times 0$$

is zero on an 11-hour clock

ISBN

$$1x_1 + 2x_2 + 3x_3 + 4x_4 + 5x_5 + 6x_6 + 7x_7 + 8x_8 + 9x_9 + 10x_{10}$$
$$1 \times 8 + 2 \times 1 + 3 \times 7 + 4 \times 5 + 5 \times 2 + 6 \times 5 + 7 \times 7 + 8 \times 6 + 9 \times 6 + 10 \times 0$$

is zero on an 11-hour clock

UDC

$$3x_1 + x_2 + 3x_3 + x_4 + 3x_5 + x_6 + 3x_7 + x_8 + 3x_9 + x_{10} + 3x_{11} + x_{12}$$

ISBN

$$1x_1 + 2x_2 + 3x_3 + 4x_4 + 5x_5 + 6x_6 + 7x_7 + 8x_8 + 9x_9 + 10x_{10}$$
$$1 \times 8 + 2 \times 1 + 3 \times 7 + 4 \times 5 + 5 \times 2 + 6 \times 5 + 7 \times 7 + 8 \times 6 + 9 \times 6 + 10 \times 0$$

is zero on an 11-hour clock

UDC

$$3x_1 + x_2 + 3x_3 + x_4 + 3x_5 + x_6 + 3x_7 + x_8 + 3x_9 + x_{10} + 3x_{11} + x_{12}$$
$$3 \times 0 + 2 + 3 \times 2 + 3 + 3 \times 3 + 4 + 3 \times 5 + 4 + 3 \times 5 + 4 + 3 \times 5 + 3$$

ISBN

$$1x_1 + 2x_2 + 3x_3 + 4x_4 + 5x_5 + 6x_6 + 7x_7 + 8x_8 + 9x_9 + 10x_{10}$$
$$1 \times 8 + 2 \times 1 + 3 \times 7 + 4 \times 5 + 5 \times 2 + 6 \times 5 + 7 \times 7 + 8 \times 6 + 9 \times 6 + 10 \times 0$$

is zero on an 11-hour clock

UDC

$$3x_1 + x_2 + 3x_3 + x_4 + 3x_5 + x_6 + 3x_7 + x_8 + 3x_9 + x_{10} + 3x_{11} + x_{12}$$
$$3 \times 0 + 2 + 3 \times 2 + 3 + 3 \times 3 + 4 + 3 \times 5 + 4 + 3 \times 5 + 4 + 3 \times 5 + 3$$

is zero on a 10-hour clock.