

## Bachelor of Mathematics (BMath)

If you are unable to access the information in this study plan, please email [enquire@science.uq.edu.au](mailto:enquire@science.uq.edu.au) for assistance.

### Bachelor of Mathematics (BMath)

Program Code: 2460

Duration: 3 years full time (or part-time equivalent)

Total Units: 48

Commencement:

Semester 1

Semester 2

Entry Requirements: Please refer to [BMath](#) future students page

### Key Program Information

- This is an AQF Level 7 program.
- Students in this program must complete a major.
- Students can choose to complete a minor in this program. Minors are optional.

### Important Notes

The information contained in this document is intended as general advice only.

Students must follow the program rules & requirements listed on the [Programs and Courses Website](#). This planner must be used in conjunction with your program duration course list and program rules.

Students need to check the prerequisites, incompatibilities and restrictions for all courses they select in their study plan. Future course offerings are subject to change.

This document is not intended as a progression or graduation check. For further information on progression or graduation checks, please contact the Faculty of Science.

### Further Assistance

Check out the [Frequently Asked Questions \(FAQ\)](#) page on this study planner document.

If you need further advice or have other questions, please contact:

[Faculty of Science](#)

Email: [enquire@science.uq.edu.au](mailto:enquire@science.uq.edu.au)

Phone: +61 7 3365 1888

## Contents

### Bachelor of Mathematics

#### Applied Mathematics Major

Semester 1 commencement	3
Semester 2 commencement	5

### Bachelor of Mathematics

#### Mathematical Artificial Intelligence Major

Semester 1 commencement	7
Semester 2 commencement	9

### Bachelor of Mathematics

#### Mathematical Physics Major

Semester 1 commencement	11
Semester 2 commencement	13

### Bachelor of Mathematics

#### Optimisation and Operations Research Major

Semester 1 commencement	15
Semester 2 commencement	18

### Bachelor of Mathematics

#### Pure Mathematics Major

Semester 1 commencement	21
Semester 2 commencement	23

### Bachelor of Mathematics

#### Statistics and Mathematical Data Science Major

Semester 1 commencement	25
Semester 2 commencement	27

Frequently Asked Questions (FAQ)	<u>29</u>
----------------------------------	-----------

## Bachelor of Mathematics (BMath) Applied Mathematics Major

Students must follow the program rules & requirements listed on the [Programs and Courses Website](#).

### Semester 1 commencement

**Step 1** Start with the base study plan outlining Core Courses and Major Courses.

Year 1				
1 <sup>st</sup> Semester (Feb – Jun) <i>Semester 1</i>	<b>MATH1051</b> <u>OR</u> <b>MATH1071 *</b>  2 units – Core Course	<b>MATH1081</b> Advanced Discrete Mathematics  2 units – Core Course	<b>Option</b>  2 units – Program Elective Course	<b>Option</b> Course coded neither MATH nor STAT  2 units – General Elective Course
2 <sup>nd</sup> Semester (July – Nov) <i>Semester 2</i>	<b>MATH1052</b> <u>OR</u> <b>MATH1072 *</b>  2 units – Core Course	<b>STAT1301</b> Advanced Analysis of Scientific Data  2 units – Core Course	<b>Option</b>  2 units – Program Elective Course	<b>Option</b> Course coded neither MATH nor STAT  2 units – General Elective Course
Year 2				
3 <sup>rd</sup> Semester (Feb – Jun) <i>Semester 1</i>	<b>MATH2400</b> <u>OR</u> <b>MATH2401 *</b> (Taken in 4 <sup>th</sup> Semester)  2 units – Core Course	<b>MATH2001</b> <u>OR</u> <b>MATH2901 *</b>  2 units – Major Course	<b>STAT2003</b> Mathematical Probability  2 units – Major Course	<b>Option</b> Course coded neither MATH nor STAT  2 units – General Elective Course
4 <sup>th</sup> Semester (July – Nov) <i>Semester 2</i>	<b>MATH2504</b> Programming of Simulation, Analysis, & Learning Systems  2 units – Core Course	<b>MATH2100</b> Applied Mathematical Analysis  2 units – Major Course	<b>Option</b>  2 units – General Elective Course	<b>Option</b> Course coded neither MATH nor STAT  2 units – General Elective Course
Year 3				
5 <sup>th</sup> Semester (Feb – Jun) <i>Semester 1</i>	<b>MATH3401</b> <u>OR</u> <b>MATH3901 *</b>  2 units – Major Course	<b>Option</b> Applied Mathematics Level 3 Elective Course  2 units – Major Course	<b>Option</b> Applied Mathematics Level 3 Elective Course  2 units – Major Course	<b>Option</b> MUST be a Level 2 or Level 3 course  2 units – General Elective Course
6 <sup>th</sup> Semester (July – Nov) <i>Semester 2</i>	<b>MATH3102</b> Methods & Models of Applied Mathematics  2 units – Major Course	<b>Option</b> Applied Mathematics Level 3 Elective Course  2 units – Major Course	<b>Option</b>  2 units – General Elective Course	<b>Option</b> MUST be a Level 2 or Level 3 course  2 units – General Elective Course

Students who have not achieved/completed a grade of C or higher in Queensland Year 12 Specialist Mathematics will need to complete MATH1050 in their 1<sup>st</sup> semester as a program elective course and move MATH1051 to their 2<sup>nd</sup> semester.

Continued next page

**Step 2** Decide on the courses that have an advanced course option, marked with a \* on the study planner.

Students may wish to commence their semester in an advanced course, and if needed, change to the non-advanced version before the end of Week 2. Students will be able to change their course enrolment themselves on SI-Net before the end of Week 2. After this, a late change to enrolment would need to be considered by the Associate Dean (Academic) via the [late addition of course process](#), and may not be approved (additional fees may apply).

Note: Students wishing to complete [MATH2401](#) (the advanced version of MATH2400), will need to move this course to 4<sup>th</sup> semester in their study plan.

**Step 3** Decide on your program elective courses or minor courses, noting semester offerings and prerequisites.

Program Electives are any courses listed on the BMath course list. It does not include general elective courses – which are not listed on the BMath course list.

Program elective courses [SCIE3050](#) and [SCIE3121](#) are recommended courses for students interested in placement and/or research.

Minor: Students choosing to complete a minor should plan their minor courses in their study plan at this step. Minor courses will replace 4 units of program elective courses and 4 units of general elective courses in the study planner above.

No Minor: Students who do not complete a minor must choose at least 4 units of program elective courses to put in their study plan. Students can choose further program elective courses in step 4.

Students can choose to, or may need to, swap the semester they complete their Major Level 3 Elective Courses, Minor courses and program/general electives depending on the semester offerings and prerequisites of their chosen courses. It is the student's responsibility to ensure they comply with the program rules and adhere to the number of units permitted for each section of the program.

**Step 4** Decide on your general elective courses and/or further program elective courses.

General electives can be chosen from any undergraduate program offered at UQ, across any Faculty. Students may wish to search for courses of interest in the UQ [Programs and Courses](#) page or select "Browse by Faculty" on this page to see courses listed in other undergraduate programs.

Students can choose to complete further program electives from the BMath course list if they choose.

Students need to follow the additional program rules when selecting program and general elective courses:

- Students must complete a minimum of 8 units of courses coded neither MATH nor STAT.
- Students can complete a maximum of 24 units of Level 1 courses across the total program, including core courses, major courses, minor courses, program and general electives.

**Step 5** Check prerequisites, incompatibilities, and restrictions for all courses you have selected in your study plan. You can click on the course codes above or find the course on the UQ [Programs and Courses](#) page. You may need to adjust courses in your study plan at this step.

Students will need to specifically check their general elective courses for semester offerings, course restrictions, prerequisites and incompatibilities. Students will be limited to courses available to them based on these requirements and the program rules.

Please refer to the [BMath](#) course list for full course options.

## Bachelor of Mathematics (BMath) Applied Mathematics Major

Students must follow the program rules & requirements listed on the [Programs and Courses Website](#).

### Semester 2 commencement

**Step 1** Start with the base study plan outlining Core Courses and Major Courses.

Year 1				
1 <sup>st</sup> Semester (July – Nov) <i>Semester 2</i>	<b>MATH1051 #</b> Calculus & Linear Algebra I  2 units – Core Course	<b>STAT1301</b> Advanced Analysis of Scientific Data  2 units – Core Course	<b>Option</b>  2 units – Program Elective Course	<b>Option</b> Course coded neither MATH nor STAT  2 units – General Elective Course
2 <sup>nd</sup> Semester (Feb – Jun) <i>Semester 1</i>	<b>MATH1052 #</b> Multivariate Calculus & Ordinary Differential Equations  2 units – Core Course	<b>MATH1081</b> Advanced Discrete Mathematics  2 units – Core Course	<b>Option</b>  2 units – Program Elective Course	<b>Option</b> Course coded neither MATH nor STAT  2 units – General Elective Course
Year 2				
3 <sup>rd</sup> Semester (July – Nov) <i>Semester 2</i>	<b>MATH2504</b> Programming of Simulation, Analysis, & Learning Systems  2 units – Core Course	<b>MATH2100</b> Applied Mathematical Analysis  2 units – Major Course	<b>Option</b>  2 units – General Elective Course	<b>Option</b> Course coded neither MATH nor STAT  2 units – General Elective Course
4 <sup>th</sup> Semester (Feb – Jun) <i>Semester 1</i>	<b>MATH2400 #</b> Mathematical Analysis  2 units – Core Course	<b>MATH2001</b> <u>OR</u> <b>MATH2901 *</b>  2 units – Major Course	<b>STAT2003</b> Mathematical Probability  2 units – Major Course	<b>Option</b> Course coded neither MATH nor STAT  2 units – General Elective Course
Year 3				
5 <sup>th</sup> Semester (July – Nov) <i>Semester 2</i>	<b>MATH3102</b> Methods & Models of Applied Mathematics  2 units – Major Course	<b>Option</b> Applied Mathematics Level 3 Elective Course  2 units – Major Course	<b>Option</b> Applied Mathematics Level 3 Elective Course  2 units – Major Course	<b>Option</b> MUST be a Level 2 or Level 3 course  2 units – General Elective Course
6 <sup>th</sup> Semester (Feb – Jun) <i>Semester 1</i>	<b>MATH3401</b> <u>OR</u> <b>MATH3901 *</b>  2 units – Major Course	<b>Option</b> Applied Mathematics Level 3 Elective Course  2 units – Major Course	<b>Option</b>  2 units – General Elective Course	<b>Option</b> MUST be a Level 2 or Level 3 course  2 units – General Elective Course

Students who have not achieved/completed a grade of C or higher in Queensland Year 12 Specialist Mathematics will need to complete MATH1050 in their 1<sup>st</sup> semester as a program elective course and move MATH1051 to their 2<sup>nd</sup> semester.

Continued next page

**Step 2** Decide on the course that has an advanced course option, marked with a \* on the study planner.

# *Note:* Due to sequencing and semester of offer of courses, students commencing in Semester 2 are not able to complete the advanced course version.

Students may wish to commence their semester in an advanced course, and if needed, change to the non-advanced version before the end of Week 2. Students will be able to change their course enrolment themselves on SI-Net before the end of Week 2. After this, a late change to enrolment would need to be considered by the Associate Dean (Academic) via the [late addition of course process](#), and may not be approved (additional fees may apply).

**Step 3** Decide on your program elective courses or minor courses, noting semester offerings and prerequisites.

Program Electives are any courses listed on the BMath course list. It does not include general elective courses – which are not listed on the BMath course list.

Program elective courses [SCIE3050](#) and [SCIE3121](#) are recommended courses for students interested in placement and/or research.

*Minor:* Students choosing to complete a minor should plan their minor courses in their study plan at this step. Minor courses will replace 4 units of program elective courses and 4 units of general elective courses in the study planner above.

*No Minor:* Students who do not complete a minor must choose at least 4 units of program elective courses to put in their study plan. Students can choose further program elective courses in step 4.

Students can choose to, or may need to, swap the semester they complete their Major Level 3 Elective Courses, Minor courses and program/general electives depending on the semester offerings and prerequisites of their chosen courses. It is the student's responsibility to ensure they comply with the program rules and adhere to the number of units permitted for each section of the program.

**Step 4** Decide on your general elective courses and/or further program elective courses.

General electives can be chosen from any undergraduate program offered at UQ, across any Faculty. Students may wish to search for courses of interest in the UQ [Programs and Courses](#) page or select "Browse by Faculty" on this page to see courses listed in other undergraduate programs.

Students can choose to complete further program electives from the BMath course list if they choose.

Students need to follow the additional program rules when selecting program and general elective courses:

- Students must complete a minimum of 8 units of courses coded neither MATH nor STAT.
- Students can complete a maximum of 24 units of Level 1 courses across the total program, including core courses, major courses, minor courses, program and general electives.

**Step 5** Check prerequisites, incompatibilities, and restrictions for all courses you have selected in your study plan. You can click on the course codes above or find the course on the UQ [Programs and Courses](#) page. You may need to adjust courses in your study plan at this step.

Students will need to specifically check their general elective courses for semester offerings, course restrictions, prerequisites and incompatibilities. Students will be limited to courses available to them based on these requirements and the program rules.

Please refer to the [BMath](#) course list for full course options.

## Bachelor of Mathematics (BMath) Mathematical Artificial Intelligence Major

Students must follow the program rules & requirements listed on the [Programs and Courses Website](#)  
Semester 1 commencement

**Step 1** Start with the base study plan outlining Core Courses and Major Courses.

Year 1				
1 <sup>st</sup> Semester (Feb – Jun) <i>Semester 1</i>	<b>MATH1051</b> <u>OR</u> <b>MATH1071 *</b> 2 units – Core Course	<b>MATH1081</b> Advanced Discrete Mathematics 2 units – Core Course	<b>Option</b> 2 units – Program Elective Course	<b>Option</b> Course coded neither MATH nor STAT 2 units – General Elective Course
2 <sup>nd</sup> Semester (July – Nov) <i>Semester 2</i>	<b>MATH1052</b> <u>OR</u> <b>MATH1072 *</b> 2 units – Core Course	<b>STAT1301</b> Advanced Analysis of Scientific Data 2 units – Core Course	<b>Option</b> 2 units – Program Elective Course	<b>Option</b> Course coded neither MATH nor STAT 2 units – General Elective Course
Year 2				
3 <sup>rd</sup> Semester (Feb – Jun) <i>Semester 1</i>	<b>MATH2400</b> <u>OR</u> <b>MATH2401 *</b> (Taken in 4 <sup>th</sup> Semester) 2 units – Core Course	<b>MATH2001</b> <u>OR</u> <b>MATH2901 *</b> 2 units – Major Course	<b>STAT2003</b> Mathematical Probability 2 units – Major Course	<b>Option</b> Course coded neither MATH nor STAT 2 units – General Elective Course
4 <sup>th</sup> Semester (July – Nov) <i>Semester 2</i>	<b>MATH2504</b> Programming of Simulation, Analysis, & Learning Systems 2 units – Core Course	<b>STAT2004</b> <u>OR</u> <b>STAT2904 *</b> 2 units – Major Course	<b>Option</b> 2 units – General Elective Course	<b>Option</b> Course coded neither MATH nor STAT 2 units – General Elective Course
Year 3				
5 <sup>th</sup> Semester (Feb – Jun) <i>Semester 1</i>	<b>MATH3204</b> Numerical Linear Algebra Research & Optimisation 2 units – Major Course	<b>STAT3006</b> Statistical Learning 2 units – Major Course	<b>Option</b> MUST be a Level 2 or Level 3 course 2 units – General Elective Course	<b>Option</b> MUST be a Level 2 or Level 3 course 2 units – General Elective Course
6 <sup>th</sup> Semester (July – Nov) <i>Semester 2</i>	<b>STAT3007</b> Deep Learning 2 units – Major Course	<b>STAT3008</b> Selected Topics in Statistical Learning 2 units – Major Course	<b>Option</b> Mathematical Artificial Intelligence Level 3 Elective Course 2 units – Major Course	<b>Option</b> MUST be a Level 2 or Level 3 course 2 units – General Elective Course

Students who have not achieved/completed a grade of C or higher in Queensland Year 12 Specialist Mathematics will need to complete MATH1050 in their 1<sup>st</sup> semester as a program elective course and move MATH1051 to their 2<sup>nd</sup> semester.

*Continued next page*



**Step 2** Decide on the courses that have an advanced course option, marked with a \* on the study planner.

Students may wish to commence their semester in an advanced course, and if needed, change to the non-advanced version before the end of Week 2. Students will be able to change their course enrolment themselves on SI-Net before the end of Week 2. After this, a late change to enrolment would need to be considered by the Associate Dean (Academic) via the [late addition of course process](#), and may not be approved (additional fees may apply).

Note: Students wishing to complete [MATH2401](#) (the advanced version of MATH2400), will need to move this course to 4<sup>th</sup> semester in their study plan.

**Step 3** Decide on your program elective courses or minor courses, noting semester offerings and prerequisites.

Program Electives are any courses listed on the BMath course list. It does not include general elective courses – which are not listed on the BMath course list.

Program elective courses [SCIE3050](#) and [SCIE3121](#) are recommended courses for students interested in placement and/or research.

Minor: Students choosing to complete a minor should plan their minor courses in their study plan at this step. Minor courses will replace 4 units of program elective courses and 4 units of general elective courses in the study planner above.

No Minor: Students who do not complete a minor must choose at least 4 units of program elective courses to put in their study plan. Students can choose further program elective courses in step 4.

Students can choose to, or may need to, swap the semester they complete their Major Level 3 Elective Courses, Minor courses and program/general electives depending on the semester offerings and prerequisites of their chosen courses. It is the student's responsibility to ensure they comply with the program rules and adhere to the number of units permitted for each section of the program.

**Step 4** Decide on your general elective courses and/or further program elective courses.

General electives can be chosen from any undergraduate program offered at UQ, across any Faculty. Students may wish to search for courses of interest in the UQ [Programs and Courses](#) page or select "Browse by Faculty" on this page to see courses listed in other undergraduate programs.

Students can choose to complete further program electives from the BMath course list if they choose.

Students need to follow the additional program rules when selecting program and general elective courses:

- Students must complete a minimum of 8 units of courses coded neither MATH nor STAT.
- Students can complete a maximum of 24 units of Level 1 courses across the total program, including core courses, major courses, minor courses, program and general electives.

**Step 5** Check prerequisites, incompatibilities, and restrictions for all courses you have selected in your study plan. You can click on the course codes above or find the course on the UQ [Programs and Courses](#) page. You may need to adjust courses in your study plan at this step.

Students will need to specifically check their general elective courses for semester offerings, course restrictions, prerequisites and incompatibilities. Students will be limited to courses available to them based on these requirements and the program rules.

Please refer to the [BMath](#) course list for full course options.



## Bachelor of Mathematics (BMath) Mathematical Artificial Intelligence Major

Students must follow the program rules & requirements listed on the [Programs and Courses Website](#).

### Semester 2 commencement

**Step 1** Start with the base study plan outlining Core Courses and Major Courses.

Year 1				
1 <sup>st</sup> Semester (July – Nov) <i>Semester 2</i>	<b>MATH1051 #</b> Calculus & Linear Algebra I  2 units – Core Course	<b>STAT1301</b> Advanced Analysis of Scientific Data  2 units – Core Course	<b>Option</b> Course coded neither MATH nor STAT  2 units – General Elective Course	<b>Option</b>  2 units – Program Elective Course
2 <sup>nd</sup> Semester (Feb – Jun) <i>Semester 1</i>	<b>MATH1052 #</b> Multivariate Calculus & Ordinary Differential Equations  2 units – Core Course	<b>MATH1081</b> Advanced Discrete Mathematics  2 units – Core Course	<b>STAT2003</b> Mathematical Probability  2 units – Major Course	<b>Option</b>  2 units – Program Elective Course
Year 2				
3 <sup>rd</sup> Semester (July – Nov) <i>Semester 2</i>	<b>MATH2504</b> Programming of Simulation, Analysis, & Learning Systems  2 units – Core Course	<b>STAT2004</b> <i>OR</i> <b>STAT2904 *</b>  2 units – Major Course	<b>MATH2001</b> <i>OR</i> <b>MATH2901 *</b> (Taken in 4 <sup>th</sup> Semester) 2 units – Major Course	<b>Option</b> Course coded neither MATH nor STAT  2 units – General Elective Course
4 <sup>th</sup> Semester (Feb – Jun) <i>Semester 1</i>	<b>MATH2400 #</b> Mathematical Analysis  2 units – Core Course	<b>MATH3204</b> Numerical Linear Algebra Research & Optimisation  2 units – Major Course	<b>STAT3006</b> Statistical Learning  2 units – Major Course	<b>Option</b> Course coded neither MATH nor STAT  2 units – General Elective Course
Year 3				
5 <sup>th</sup> Semester (July – Nov) <i>Semester 2</i>	<b>STAT3007</b> Deep Learning 2 units – Major Course	<b>STAT3008</b> Selected Topics in Statistical Learning  2 units – Major Course	<b>Option</b>  2 units – General Elective Course	<b>Option</b> MUST be a Level 2 or Level 3 course  2 units – General Elective Course
6 <sup>th</sup> Semester (Feb – Jun) <i>Semester 1</i>	<b>Option</b> Mathematical Artificial Intelligence Level 3 Elective Course  2 units – Major Course	<b>Option</b> Course coded neither MATH nor STAT  2 units – General Elective Course	<b>Option</b> MUST be a Level 2 or Level 3 course  2 units – General Elective Course	<b>Option</b> MUST be a Level 2 or Level 3 course  2 units – General Elective Course

Students who have not achieved/completed a grade of C or higher in Queensland Year 12 Specialist Mathematics will need to complete MATH1050 in their 1<sup>st</sup> semester as a program elective course and complete MATH1051 over Summer Semester. MATH1051 is a required prerequisite for STAT2003 so needs to be completed in Summer Semester for the progression of courses.

*Continued next page*

**Step 2** Decide on the courses that have an advanced course option, marked with a \* on the study planner.

# *Note:* Due to sequencing and semester of offer of courses, students commencing in Semester 2 are not able to complete the advanced course version.

Students may wish to commence their semester in an advanced course, and if needed, change to the non-advanced version before the end of Week 2. Students will be able to change their course enrolment themselves on SI-Net before the end of Week 2. After this, a late change to enrolment would need to be considered by the Associate Dean (Academic) via the [late addition of course process](#), and may not be approved (additional fees may apply).

**Step 3** Decide on your program elective courses or minor courses, noting semester offerings and prerequisites.

Program Electives are any courses listed on the BMath course list. It does not include general elective courses – which are not listed on the BMath course list.

Program elective courses [SCIE3050](#) and [SCIE3121](#) are recommended courses for students interested in placement and/or research.

*Minor:* Students choosing to complete a minor should plan their minor courses in their study plan at this step. Minor courses will replace 4 units of program elective courses and 4 units of general elective courses in the study planner above.

*No Minor:* Students who do not complete a minor must choose at least 4 units of program elective courses to put in their study plan. Students can choose further program elective courses in step 4.

Students can choose to, or may need to, swap the semester they complete their Major Level 3 Elective Courses, Minor courses and program/general electives depending on the semester offerings and prerequisites of their chosen courses. It is the student's responsibility to ensure they comply with the program rules and adhere to the number of units permitted for each section of the program.

**Step 4** Decide on your general elective courses and/or further program elective courses.

General electives can be chosen from any undergraduate program offered at UQ, across any Faculty. Students may wish to search for courses of interest in the UQ [Programs and Courses](#) page or select "Browse by Faculty" on this page to see courses listed in other undergraduate programs.

Students can choose to complete further program electives from the BMath course list if they choose.

Students need to follow the additional program rules when selecting program and general elective courses:

- Students must complete a minimum of 8 units of courses coded neither MATH nor STAT.
- Students can complete a maximum of 24 units of Level 1 courses across the total program, including core courses, major courses, minor courses, program and general electives.

**Step 5** Check prerequisites, incompatibilities, and restrictions for all courses you have selected in your study plan. You can click on the course codes above or find the course on the UQ [Programs and Courses](#) page. You may need to adjust courses in your study plan at this step.

Students will need to specifically check their general elective courses for semester offerings, course restrictions, prerequisites and incompatibilities. Students will be limited to courses available to them based on these requirements.

Please refer to the [BMath](#) course list for full course options.

## Bachelor of Mathematics (BMath) Mathematical Physics Major

Students must follow the program rules & requirements listed on the [Programs and Courses Website](#).

### Semester 1 commencement

**Step 1** Start with the base study plan outlining **Core Courses** and **Major Courses**.

Year 1				
1 <sup>st</sup> Semester (Feb – Jun) <i>Semester 1</i>	<b>MATH1051</b> <u>OR</u> <b>MATH1071 *</b>  2 units – Core Course	<b>MATH1081</b> Advanced Discrete Mathematics  2 units – Core Course	<b>Option</b>  2 units – Program Elective Course	<b>Option</b> Course coded neither MATH nor STAT  2 units – General Elective Course
2 <sup>nd</sup> Semester (July – Nov) <i>Semester 2</i>	<b>MATH1052</b> <u>OR</u> <b>MATH1072 *</b>  2 units – Core Course	<b>STAT1301</b> Advanced Analysis of Scientific Data  2 units – Core Course	<b>Option</b>  2 units – Program Elective Course	<b>Option</b> Course coded neither MATH nor STAT  2 units – General Elective Course
Year 2				
3 <sup>rd</sup> Semester (Feb – Jun) <i>Semester 1</i>	<b>MATH2400</b> <u>OR</u> <b>MATH2401 *</b> (Taken in 4 <sup>th</sup> Semester)  2 units – Core Course	<b>MATH2001</b> <u>OR</u> <b>MATH2901 *</b>  2 units – Major Course	<b>MATH2301</b> Linear & Abstract Algebra & Number Theory  2 units – Major Course	<b>Option</b> Course coded neither MATH nor STAT  2 units – General Elective Course
4 <sup>th</sup> Semester (July – Nov) <i>Semester 2</i>	<b>MATH2504</b> Programming of Simulation, Analysis, & Learning Systems  2 units – Core Course	<b>MATH2100</b> Applied Mathematical Analysis  2 units – Major Course	<b>Option</b>  2 units – General Elective Course	<b>Option</b> Course coded neither MATH nor STAT  2 units – General Elective Course
Year 3				
5 <sup>th</sup> Semester (Feb – Jun) <i>Semester 1</i>	<b>MATH3401</b> <u>OR</u> <b>MATH3901 *</b>  2 units – Major Course	<b>Option</b> Mathematical Physics Level 3 Elective Course  2 units – Major Course	<b>Option</b> Mathematical Physics Level 3 Elective Course  2 units – Major Course	<b>Option</b> MUST be a Level 2 or Level 3 course  2 units – General Elective Course
6 <sup>th</sup> Semester (July – Nov) <i>Semester 2</i>	<b>MATH3103</b> Algebraic Methods of Mathematical Physics  2 units – Major Course	<b>Option</b> Mathematical Physics Level 3 Elective Course  2 units – Major Course	<b>Option</b>  2 units – General Elective Course	<b>Option</b> MUST be a Level 2 or Level 3 course  2 units – General Elective Course

Students who have not achieved/completed a grade of C or higher in Queensland Year 12 Specialist Mathematics will need to complete MATH1050 in their 1<sup>st</sup> semester as a program elective course and move MATH1051 to their 2<sup>nd</sup> semester.

Continued next page

**Step 2** Decide on the courses that have an advanced course option, marked with a \* on the study planner.

Students may wish to commence their semester in an advanced course, and if needed, change to the non-advanced version before the end of Week 2. Students will be able to change their course enrolment themselves on SI-Net before the end of Week 2. After this, a late change to enrolment would need to be considered by the Associate Dean (Academic) via the [late addition of course process](#), and may not be approved (additional fees may apply).

Note: Students wishing to complete [MATH2401](#) (the advanced version of MATH2400), will need to move this course to 4<sup>th</sup> semester in their study plan.

**Step 3** Decide on your program elective courses or minor courses, noting semester offerings and prerequisites.

Program Electives are any courses listed on the BMath course list. It does not include general elective courses – which are not listed on the BMath course list.

Program elective courses [SCIE3050](#) and [SCIE3121](#) are recommended courses for students interested in placement and/or research.

Minor: Students choosing to complete a minor should plan their minor courses in their study plan at this step. Minor courses will replace 4 units of program elective courses and 4 units of general elective courses in the study planner above.

No Minor: Students who do not complete a minor must choose at least 4 units of program elective courses to put in their study plan. Students can choose further program elective courses in step 4.

Students can choose to, or may need to, swap the semester they complete their Major Level 3 Elective Courses, Minor courses and program/general electives depending on the semester offerings and prerequisites of their chosen courses. It is the student's responsibility to ensure they comply with the program rules and adhere to the number of units permitted for each section of the program.

**Step 4** Decide on your general elective courses and/or further program elective courses.

General electives can be chosen from any undergraduate program offered at UQ, across any Faculty. Students may wish to search for courses of interest in the UQ [Programs and Courses](#) page or select "Browse by Faculty" on this page to see courses listed in other undergraduate programs.

Students can choose to complete further program electives from the BMath course list if they choose.

Students need to follow the additional program rules when selecting program and general elective courses:

- Students must complete a minimum of 8 units of courses coded neither MATH nor STAT.
- Students can complete a maximum of 24 units of Level 1 courses across the total program, including core courses, major courses, minor courses, program and general electives.

**Step 5** Check prerequisites, incompatibilities, and restrictions for all courses you have selected in your study plan. You can click on the course codes above or find the course on the UQ [Programs and Courses](#) page. You may need to adjust courses in your study plan at this step.

Students will need to specifically check their general elective courses for semester offerings, course restrictions, prerequisites and incompatibilities. Students will be limited to courses available to them based on these requirements and the program rules.

Please refer to the [BMath](#) course list for full course options.

## Bachelor of Mathematics (BMath) Mathematical Physics Major

Students must follow the program rules & requirements listed on the [Programs and Courses Website](#).

### Semester 2 commencement

**Step 1** Start with the base study plan outlining Core Courses and Major Courses.

Year 1				
1 <sup>st</sup> Semester (July – Nov) <i>Semester 2</i>	<b>MATH1051 #</b> Calculus & Linear Algebra I  2 units – Core Course	<b>STAT1301</b> Advanced Analysis of Scientific Data  2 units – Core Course	<b>Option</b>  2 units – Program Elective Course	<b>Option</b> Course coded neither MATH nor STAT  2 units – General Elective Course
2 <sup>nd</sup> Semester (Feb – Jun) <i>Semester 1</i>	<b>MATH1052 #</b> Multivariate Calculus & Ordinary Differential Equations  2 units – Core Course	<b>MATH1081</b> Advanced Discrete Mathematics  2 units – Core Course	<b>Option</b>  2 units – Program Elective Course	<b>Option</b> Course coded neither MATH nor STAT  2 units – General Elective Course
Year 2				
3 <sup>rd</sup> Semester (July – Nov) <i>Semester 2</i>	<b>MATH2504</b> Programming of Simulation, Analysis, & Learning Systems  2 units – Core Course	<b>MATH2100</b> Applied Mathematical Analysis  2 units – Major Course	<b>Option</b>  2 units – General Elective Course	<b>Option</b> Course coded neither MATH nor STAT  2 units – General Elective Course
4 <sup>th</sup> Semester (Feb – Jun) <i>Semester 1</i>	<b>MATH2400 #</b> Mathematical Analysis  2 units – Core Course	<b>MATH2001</b> <u>OR</u> <b>MATH2901 *</b>  2 units – Major Course	<b>MATH2301</b> Linear & Abstract Algebra & Number Theory  2 units – Major Course	<b>Option</b> Course coded neither MATH nor STAT  2 units – General Elective Course
Year 3				
5 <sup>th</sup> Semester (July – Nov) <i>Semester 2</i>	<b>MATH3103</b> Algebraic Methods of Mathematical Physics  2 units – Major Course	<b>Option</b> Mathematical Physics Level 3 Elective Course  2 units – Major Course	<b>Option</b> Mathematical Physics Level 3 Elective Course  2 units – Major Course	<b>Option</b> MUST be a Level 2 or Level 3 course  2 units – General Elective Course
6 <sup>th</sup> Semester (Feb – Jun) <i>Semester 1</i>	<b>MATH3401</b> <u>OR</u> <b>MATH3901 *</b>  2 units – Major Course	<b>Option</b> Mathematical Physics Level 3 Elective Course  2 units – Major Course	<b>Option</b>  2 units – General Elective Course	<b>Option</b> MUST be a Level 2 or Level 3 course  2 units – General Elective Course

Students who have not achieved/completed a grade of C or higher in Queensland Year 12 Specialist Mathematics will need to complete MATH1050 in their 1<sup>st</sup> semester as a program elective course and move MATH1051 to their 2<sup>nd</sup> semester.

Continued next page

**Step 2** Decide on the courses that have an advanced course option, marked with a \* on the study planner.

# *Note:* Due to sequencing and semester of offer of courses, students commencing in Semester 2 are not able to complete the advanced course version.

Students may wish to commence their semester in an advanced course, and if needed, change to the non-advanced version before the end of Week 2. Students will be able to change their course enrolment themselves on SI-Net before the end of Week 2. After this, a late change to enrolment would need to be considered by the Associate Dean (Academic) via the [late addition of course process](#), and may not be approved (additional fees may apply).

**Step 3** Decide on your program elective courses or minor courses, noting semester offerings and prerequisites.

Program Electives are any courses listed on the BMath course list. It does not include general elective courses – which are not listed on the BMath course list.

Program elective courses [SCIE3050](#) and [SCIE3121](#) are recommended courses for students interested in placement and/or research.

*Minor:* Students choosing to complete a minor should plan their minor courses in their study plan at this step. Minor courses will replace 4 units of program elective courses and 4 units of general elective courses in the study planner above.

*No Minor:* Students who do not complete a minor must choose at least 4 units of program elective courses to put in their study plan. Students can choose further program elective courses in step 4.

Students can choose to, or may need to, swap the semester they complete their Major Level 3 Elective Courses, Minor courses and program/general electives depending on the semester offerings and prerequisites of their chosen courses. It is the student's responsibility to ensure they comply with the program rules and adhere to the number of units permitted for each section of the program.

**Step 4** Decide on your general elective courses and/or further program elective courses.

General electives can be chosen from any undergraduate program offered at UQ, across any Faculty. Students may wish to search for courses of interest in the UQ [Programs and Courses](#) page or select "Browse by Faculty" on this page to see courses listed in other undergraduate programs.

Students can choose to complete further program electives from the BMath course list if they choose.

Students need to follow the additional program rules when selecting program and general elective courses:

- Students must complete a minimum of 8 units of courses coded neither MATH nor STAT.
- Students can complete a maximum of 24 units of Level 1 courses across the total program, including core courses, major courses, minor courses, program and general electives.

**Step 5** Check prerequisites, incompatibilities, and restrictions for all courses you have selected in your study plan. You can click on the course codes above or find the course on the UQ [Programs and Courses](#) page. You may need to adjust courses in your study plan at this step.

Students will need to specifically check their general elective courses for semester offerings, course restrictions, prerequisites and incompatibilities. Students will be limited to courses available to them based on these requirements and the program rules.

Please refer to the [BMath](#) course list for full course options.



## Bachelor of Mathematics (BMath) Optimisation and Operations Research Major

Students must follow the program rules & requirements listed on the [Programs and Courses Website](#).

### Semester 1 commencement

**Step 1** Start with the base study plan outlining **Core Courses** and **Major Courses**.

Year 1				
1 <sup>st</sup> Semester (Feb – Jun) <i>Semester 1</i>	<b>MATH1051</b> <i>OR</i> <b>MATH1071 *</b>  2 units – Core Course	<b>MATH1081</b> Advanced Discrete Mathematics  2 units – Core Course	<b>Option</b>  2 units – Program Elective Course	<b>Option</b> Course coded neither MATH nor STAT  2 units – General Elective Course
2 <sup>nd</sup> Semester (July – Nov) <i>Semester 2</i>	<b>MATH1052</b> <i>OR</i> <b>MATH1072 *</b>  2 units – Core Course	<b>STAT1301</b> Advanced Analysis of Scientific Data  2 units – Core Course	<b>Option</b>  2 units – Program Elective Course	<b>Option</b> Course coded neither MATH nor STAT  2 units – General Elective Course
Year 2				
3 <sup>rd</sup> Semester (Feb – Jun) <i>Semester 1</i>	<b>MATH2400</b> <i>OR</i> <b>MATH2401 *</b> (Taken in 4 <sup>th</sup> Semester)  2 units – Core Course	<b>MATH2001</b> <i>OR</i> <b>MATH2901 *</b>  2 units – Major Course	<b>STAT2003</b> Mathematical Probability  2 units – Major Course	<b>Option</b> Course coded neither MATH nor STAT  2 units – General Elective Course
4 <sup>th</sup> Semester (July – Nov) <i>Semester 2</i>	<b>MATH2504</b> Programming of Simulation, Analysis, & Learning Systems  2 units – Core Course	<b>MATH2302</b> Discrete Mathematics II  2 units – Major Course	<b>Option</b>  2 units – General Elective Course	<b>Option</b> Course coded neither MATH nor STAT  2 units – General Elective Course

Students who have not achieved/completed a grade of C or higher in Queensland Year 12 Specialist Mathematics will need to complete MATH1050 in their 1<sup>st</sup> semester as a program elective course and move MATH1051 to their 2<sup>nd</sup> semester.

*Continued next page*



Year 3				
5 <sup>th</sup> Semester (Feb – Jun) <i>Semester 1</i>	<b>MATH3202</b> Operations Research & Mathematical Planning  2 units – Major Course	<b>MATH3204</b> Numerical Linear Algebra & Optimisation  2 units – Major Course	<b>Option</b> Optimisation and Operations Research Level 3 Elective Course (Section 2)  Choose from: MATH3090, or semester 2 offered courses  0 – 2 units – Major Course	<b>Option</b> <i>MUST be a Level 2 or Level 3 course</i>  2 units – General Elective Course
	<b>Option</b> Optimisation and Operations Research Level 3 Elective Course (Section 1)  Choose from: MATH3205 and/or MATH3404  2 – 4 units – Major Course	<b>Option</b> Optimisation and Operations Research Level 3 Elective Course (Section 2)  Choose from: COSC3500, MATH3070, MATH3301, STAT3004 and/or semester 1 offered course  2 – 4 units – Major Course		

**Step 2** Decide on the courses that have an advanced course option, marked with a \* on the study planner.

Students may wish to commence their semester in an advanced course, and if needed, change to the non-advanced version before the end of Week 2. Students will be able to change their course enrolment themselves on SI-Net before the end of Week 2. After this, a late change to enrolment would need to be considered by the Associate Dean (Academic) via the [late addition of course process](#), and may not be approved (additional fees may apply).

Note: Students wishing to complete [MATH2401](#) (the advanced version of MATH2400), will need to move this course to 4<sup>th</sup> semester in their study plan.

**Step 3** Decide on your program elective courses or minor courses, noting semester offerings and prerequisites.

Program Electives are any courses listed on the BMath course list. It does not include general elective courses – which are not listed on the BMath course list.

Program elective courses [SCIE3050](#) and [SCIE3121](#) are recommended courses for students interested in placement and/or research.

Minor: Students choosing to complete a minor should plan their minor courses in their study plan at this step. Minor courses will replace 4 units of program elective courses and 4 units of general elective courses in the study planner above.

No Minor: Students who do not complete a minor must choose at least 4 units of program elective courses to put in their study plan. Students can choose further program elective courses in step 4.

Students can choose to, or may need to, swap the semester they complete their Major Level 3 Elective Courses, Minor courses and program/general electives depending on the semester offerings and prerequisites of their chosen courses. It is the student's responsibility to ensure they comply with the program rules and adhere to the number of units permitted for each section of the program.

*Continued next page*

**Step 4** Decide on your general elective courses and/or further program elective courses.

General electives can be chosen from any undergraduate program offered at UQ, across any Faculty. Students may wish to search for courses of interest in the UQ [Programs and Courses](#) page or select “Browse by Faculty” on this page to see courses listed in other undergraduate programs.

Students can choose to complete further program electives from the BMath course list if they choose.

Students need to follow the additional program rules when selecting program and general elective courses:

- Students must complete a minimum of 8 units of courses coded neither MATH nor STAT.
- Students can complete a maximum of 24 units of Level 1 courses across the total program, including core courses, major courses, minor courses, program and general electives.

**Step 5** Check prerequisites, incompatibilities, and restrictions for all courses you have selected in your study plan. You can click on the course codes above or find the course on the UQ [Programs and Courses](#) page. You may need to adjust courses in your study plan at this step.

Students will need to specifically check their general elective courses for semester offerings, course restrictions, prerequisites and incompatibilities. Students will be limited to courses available to them based on these requirements and the program rules.

Please refer to the [BMath](#) course list for full course options.

## Bachelor of Mathematics (BMath) Optimisation and Operations Research Major

Students must follow the program rules & requirements listed on the [Programs and Courses Website](#).

### Semester 2 commencement

**Step 1** Start with the base study plan outlining **Core Courses** and **Major Courses**.

Year 1				
1 <sup>st</sup> Semester (July – Nov) <i>Semester 2</i>	<b>MATH1051 #</b> Calculus & Linear Algebra I  2 units – Core Course	<b>STAT1301</b> Advanced Analysis of Scientific Data  2 units – Core Course	<b>Option</b> Course coded neither MATH nor STAT  2 units – General Elective Course	<b>Option</b>  2 units – Program Elective Course
2 <sup>nd</sup> Semester (Feb – Jun) <i>Semester 1</i>	<b>MATH1052 #</b> Multivariate Calculus & Ordinary Differential Equations  2 units – Core Course	<b>MATH1081</b> Advanced Discrete Mathematics  2 units – Core Course	<b>STAT2003</b> Mathematical Probability  2 units – Major Course	<b>Option</b>  2 units – Program Elective Course
Year 2				
3 <sup>rd</sup> Semester (July – Nov) <i>Semester 2</i>	<b>MATH2504</b> Programming of Simulation, Analysis, & Learning Systems  2 units – Core Course	<b>MATH2302</b> Discrete Mathematics II  2 units – Major Course	<b>Option</b> Course coded neither MATH nor STAT  2 units – General Elective Course	<b>Option</b> Course coded neither MATH nor STAT  2 units – General Elective Course
4 <sup>th</sup> Semester (Feb – Jun) <i>Semester 1</i>	<b>MATH2400 #</b> Mathematical Analysis  2 units – Core Course	<b>MATH2001</b> <u>OR</u> <b>MATH2901 *</b>  2 units – Major Course	<b>MATH3202</b> Operations Research & Mathematical Planning  2 units – Major Course	<b>Option</b> Course coded neither MATH nor STAT  2 units – General Elective Course

Students who have not achieved/completed a grade of C or higher in Queensland Year 12 Specialist Mathematics will need to complete MATH1050 in their 1<sup>st</sup> semester as a program elective course and complete MATH1051 over Summer Semester. MATH1051 is a required prerequisite for STAT2003 so needs to be completed in Summer Semester for the progression of courses.

*Continued next page*

Year 3				
5 <sup>th</sup> Semester (July – Nov) <i>Semester 2</i>	<b>Option</b> Optimisation and Operations Research Level 3 Elective Course (Section 1)  Choose from: MATH3205 and/or MATH3404  <i>2 – 4 units – Major Course</i>		<b>Option</b> Optimisation and Operations Research Level 3 Elective Course (Section 2)  Choose from: COSC3500, MATH3070, MATH3301, STAT3004 and/or semester 1 offered course  <i>2 – 4 units – Major Course</i>	
	<b>MATH3204</b> Numerical Linear Algebra & Optimisation  <i>2 units – Major Course</i>	<b>Option</b> Optimisation and Operations Research Level 3 Elective Course (Section 2)  Choose from: MATH3090 or semester 2 offered courses  <i>2 – 4 units – Major Course</i>	<b>Option</b> <i>MUST be a Level 2 or Level 3 course</i>  <i>2 units – General Elective Course</i>	<b>Option</b>   <i>2 units – General Elective Course</i>

**Step 2** Decide on the courses that have an advanced course option, marked with a \* on the study planner.

# *Note:* Due to sequencing and semester of offer of courses, students commencing in Semester 2 are not able to complete the advanced course version.

Students may wish to commence their semester in an advanced course, and if needed, change to the non-advanced version before the end of Week 2. Students will be able to change their course enrolment themselves on SI-Net before the end of Week 2. After this, a late change to enrolment would need to be considered by the Associate Dean (Academic) via the [late addition of course process](#), and may not be approved (additional fees may apply).

**Step 3** Decide on your program elective courses or minor courses, noting semester offerings and prerequisites.

Program Electives are any courses listed on the BMath course list. It does not include general elective courses – which are not listed on the BMath course list.

Program elective courses [SCIE3050](#) and [SCIE3250](#) are recommended courses for students interested in placement and/or research.

**Minor:** Students choosing to complete a minor should plan their minor courses in their study plan at this step. Minor courses will replace 4 units of program elective courses and 4 units of general elective courses in the study planner above.

**No Minor:** Students who do not complete a minor must choose at least 4 units of program elective courses to put in their study plan. Students can choose further program elective courses in step 4.

Students can choose to, or may need to, swap the semester they complete their Major Level 3 Elective Courses, Minor courses and program/general electives depending on the semester offerings and prerequisites of their chosen courses. It is the student's responsibility to ensure they comply with the program rules and adhere to the number of units permitted for each section of the program.

*Continued next page*

**Step 4** Decide on your general elective courses and/or further program elective courses.

General electives can be chosen from any undergraduate program offered at UQ, across any Faculty. Students may wish to search for courses of interest in the UQ [Programs and Courses](#) page or select “Browse by Faculty” on this page to see courses listed in other undergraduate programs.

Students can choose to complete further program electives from the BMath course list if they choose.

Students need to follow the additional program rules when selecting program and general elective courses:

- Students must complete a minimum of 8 units of courses coded neither MATH nor STAT.
- Students can complete a maximum of 24 units of Level 1 courses across the total program, including core courses, major courses, minor courses, program and general electives.

**Step 5** Check prerequisites, incompatibilities, and restrictions for all courses you have selected in your study plan. You can click on the course codes above or find the course on the UQ [Programs and Courses](#) page. You may need to adjust courses in your study plan at this step.

Students will need to specifically check their general elective courses for semester offerings, course restrictions, prerequisites and incompatibilities. Students will be limited to courses available to them based on these requirements.

Please refer to the [BMath](#) course list for full course options.

## Bachelor of Mathematics (BMath)

### Pure Mathematics Major

Students must follow the program rules & requirements listed on the [Programs and Courses Website](#).

#### Semester 1 commencement

**Step 1** Start with the base study plan outlining Core Courses and Major Courses.

Year 1				
1 <sup>st</sup> Semester (Feb – Jun) <i>Semester 1</i>	<b>MATH1051</b> <u>OR</u> <b>MATH1071 *</b>  2 units – Core Course	<b>MATH1081</b> Advanced Discrete Mathematics  2 units – Core Course	<b>Option</b>  2 units – Program Elective Course	<b>Option</b> Course coded neither MATH nor STAT  2 units – General Elective Course
2 <sup>nd</sup> Semester (July – Nov) <i>Semester 2</i>	<b>MATH1052</b> <u>OR</u> <b>MATH1072 *</b>  2 units – Core Course	<b>STAT1301</b> Advanced Analysis of Scientific Data  2 units – Core Course	<b>Option</b>  2 units – Program Elective Course	<b>Option</b> Course coded neither MATH nor STAT  2 units – General Elective Course
Year 2				
3 <sup>rd</sup> Semester (Feb – Jun) <i>Semester 1</i>	<b>MATH2400</b> <u>OR</u> <b>MATH2401 *</b> (Taken in 4 <sup>th</sup> Semester)  2 units – Core Course	<b>MATH2001</b> <u>OR</u> <b>MATH2901 *</b>  2 units – Major Course	<b>MATH2301</b> Linear & Abstract Algebra & Number Theory  2 units – Major Course	<b>Option</b> Course coded neither MATH nor STAT  2 units – General Elective Course
4 <sup>th</sup> Semester (July – Nov) <i>Semester 2</i>	<b>MATH2504</b> Programming of Simulation, Analysis, & Learning Systems  2 units – Core Course	<b>Option</b> Pure Mathematics Level 2 Elective Course  2 units – Major Course	<b>Option</b>  2 units – General Elective Course	<b>Option</b> Course coded neither MATH nor STAT  2 units – General Elective Course
Year 3				
5 <sup>th</sup> Semester (Feb – Jun) <i>Semester 1</i>	<b>MATH3401</b> <u>OR</u> <b>MATH3901 *</b>  2 units – Major Course	<b>MATH3303</b> Abstract Algebra & Number Theory  2 units – Major Course	<b>Option</b> Pure Mathematics Level 3 Elective Course  2 units – Major Course	<b>Option</b> MUST be a Level 2 or Level 3 course  2 units – General Elective Course
6 <sup>th</sup> Semester (July – Nov) <i>Semester 2</i>	<b>Option</b> Pure Mathematics Level 3 Elective Course  2 units – Major Course	<b>Option</b> Pure Mathematics Level 3 Elective Course  2 units – Major Course	<b>Option</b>  2 units – General Elective Course	<b>Option</b> MUST be a Level 2 or Level 3 course  2 units – General Elective Course

Students who have not achieved/completed a grade of C or higher in Queensland Year 12 Specialist Mathematics will need to complete MATH1050 in their 1<sup>st</sup> semester as a program elective course and move MATH1051 to their 2<sup>nd</sup> semester.

Continued next page

**Step 2** Decide on the courses that have an advanced course option, marked with a \* on the study planner.

Students may wish to commence their semester in an advanced course, and if needed, change to the non-advanced version before the end of Week 2. Students will be able to change their course enrolment themselves on SI-Net before the end of Week 2. After this, a late change to enrolment would need to be considered by the Associate Dean (Academic) via the [late addition of course process](#), and may not be approved (additional fees may apply).

Note: Students wishing to complete [MATH2401](#) (the advanced version of MATH2400), will need to move this course to 4<sup>th</sup> semester in their study plan.

**Step 3** Decide on your program elective courses or minor courses, noting semester offerings and prerequisites.

Program Electives are any courses listed on the BMath course list. It does not include general elective courses – which are not listed on the BMath course list.

Program elective courses [SCIE3050](#) and [SCIE121](#) are recommended courses for students interested in placement and/or research.

Minor: Students choosing to complete a minor should plan their minor courses in their study plan at this step. Minor courses will replace 4 units of program elective courses and 4 units of general elective courses in the study planner above.

No Minor: Students who do not complete a minor must choose at least 4 units of program elective courses to put in their study plan. Students can choose further program elective courses in step 4.

Students can choose to, or may need to, swap the semester they complete their Major Level 3 Elective Courses, Minor courses and program/general electives depending on the semester offerings and prerequisites of their chosen courses. It is the student's responsibility to ensure they comply with the program rules and adhere to the number of units permitted for each section of the program.

**Step 4** Decide on your general elective courses and/or further program elective courses.

General electives can be chosen from any undergraduate program offered at UQ, across any Faculty. Students may wish to search for courses of interest in the UQ [Programs and Courses](#) page or select "Browse by Faculty" on this page to see courses listed in other undergraduate programs.

Students can choose to complete further program electives from the BMath course list if they choose.

Students need to follow the additional program rules when selecting program and general elective courses:

- Students must complete a minimum of 8 units of courses coded neither MATH nor STAT.
- Students can complete a maximum of 24 units of Level 1 courses across the total program, including core courses, major courses, minor courses, program and general electives.

**Step 5** Check prerequisites, incompatibilities, and restrictions for all courses you have selected in your study plan. You can click on the course codes above or find the course on the UQ [Programs and Courses](#) page. You may need to adjust courses in your study plan at this step.

Students will need to specifically check their general elective courses for semester offerings, course restrictions, prerequisites and incompatibilities. Students will be limited to courses available to them based on these requirements and the program rules.

Please refer to the [BMath](#) course list for full course options.



## Bachelor of Mathematics (BMath) Pure Mathematics Major

Students must follow the program rules & requirements listed on the [Programs and Courses Website](#).

### Semester 2 commencement

**Step 1** Start with the base study plan outlining Core Courses and Major Courses.

Year 1				
1 <sup>st</sup> Semester (July – Nov) <i>Semester 2</i>	<b>MATH1051 #</b> Calculus & Linear Algebra I  2 units – Core Course	<b>STAT1301</b> Advanced Analysis of Scientific Data  2 units – Core Course	<b>Option</b>  2 units – Program Elective Course	<b>Option</b> Course coded neither MATH nor STAT  2 units – General Elective Course
2 <sup>nd</sup> Semester (Feb – Jun) <i>Semester 1</i>	<b>MATH1052 #</b> Multivariate Calculus & Ordinary Differential Equations  2 units – Core Course	<b>MATH1081</b> Advanced Discrete Mathematics  2 units – Core Course	<b>Option</b>  2 units – Program Elective Course	<b>Option</b> Course coded neither MATH nor STAT  2 units – General Elective Course
Year 2				
3 <sup>rd</sup> Semester (July – Nov) <i>Semester 2</i>	<b>MATH2504</b> Programming of Simulation, Analysis, & Learning Systems  2 units – Core Course	<b>Option</b> Pure Mathematics Level 2 Elective Course  2 units – Major Course	<b>Option</b>  2 units – General Elective Course	<b>Option</b> Course coded neither MATH nor STAT  2 units – General Elective Course
4 <sup>th</sup> Semester (Feb – Jun) <i>Semester 1</i>	<b>MATH2400 #</b> Mathematical Analysis  2 units – Core Course	<b>MATH2001</b> <u>OR</u> <b>MATH2901 *</b>  2 units – Major Course	<b>MATH2301</b> Linear & Abstract Algebra & Number Theory  2 units – Major Course	<b>Option</b> Course coded neither MATH nor STAT  2 units – General Elective Course
Year 3				
5 <sup>th</sup> Semester (July – Nov) <i>Semester 2</i>	<b>Option</b> Pure Mathematics Level 3 Elective Course  2 units – Major Course	<b>Option</b> Pure Mathematics Level 3 Elective Course  2 units – Major Course	<b>Option</b>  2 units – General Elective Course	<b>Option</b> MUST be a Level 2 or Level 3 course  2 units – General Elective Course
6 <sup>th</sup> Semester (Feb – Jun) <i>Semester 1</i>	<b>MATH3401</b> <u>OR</u> <b>MATH3901 *</b>  2 units – Major Course	<b>MATH3303</b> Abstract Algebra & Number Theory  2 units – Major Course	<b>Option</b> Pure Mathematics Level 3 Elective Course  2 units – Major Course	<b>Option</b> MUST be a Level 2 or Level 3 course  2 units – General Elective Course

Students who have not achieved/completed a grade of C or higher in Queensland Year 12 Specialist Mathematics will need to complete MATH1050 in their 1<sup>st</sup> semester as a program elective course and move MATH1051 to their 2<sup>nd</sup> semester.

Continued next page

**Step 2** Decide on the courses that have an advanced course option, marked with a \* on the study planner.

# *Note:* Due to sequencing and semester of offer of courses, students commencing in Semester 2 are not able to complete the advanced course version.

Students may wish to commence their semester in an advanced course, and if needed, change to the non-advanced version before the end of Week 2. Students will be able to change their course enrolment themselves on SI-Net before the end of Week 2. After this, a late change to enrolment would need to be considered by the Associate Dean (Academic) via the [late addition of course process](#), and may not be approved (additional fees may apply).

**Step 3** Decide on your program elective courses or minor courses, noting semester offerings and prerequisites.

Program Electives are any courses listed on the BMath course list. It does not include general elective courses – which are not listed on the BMath course list.

Program elective courses [SCIE3050](#) and [SCIE3121](#) are recommended courses for students interested in placement and/or research.

*Minor:* Students choosing to complete a minor should plan their minor courses in their study plan at this step. Minor courses will replace 4 units of program elective courses and 4 units of general elective courses in the study planner above.

*No Minor:* Students who do not complete a minor must choose at least 4 units of program elective courses to put in their study plan. Students can choose further program elective courses in step 4.

Students can choose to, or may need to, swap the semester they complete their Major Level 3 Elective Courses, Minor courses and program/general electives depending on the semester offerings and prerequisites of their chosen courses. It is the student's responsibility to ensure they comply with the program rules and adhere to the number of units permitted for each section of the program.

**Step 4** Decide on your general elective courses and/or further program elective courses.

General electives can be chosen from any undergraduate program offered at UQ, across any Faculty. Students may wish to search for courses of interest in the UQ [Programs and Courses](#) page or select "Browse by Faculty" on this page to see courses listed in other undergraduate programs.

Students can choose to complete further program electives from the BMath course list if they choose.

Students need to follow the additional program rules when selecting program and general elective courses:

- Students must complete a minimum of 8 units of courses coded neither MATH nor STAT.
- Students can complete a maximum of 24 units of Level 1 courses across the total program, including core courses, major courses, minor courses, program and general electives.

**Step 5** Check prerequisites, incompatibilities, and restrictions for all courses you have selected in your study plan. You can click on the course codes above or find the course on the UQ [Programs and Courses](#) page. You may need to adjust courses in your study plan at this step.

Students will need to specifically check their general elective courses for semester offerings, course restrictions, prerequisites and incompatibilities. Students will be limited to courses available to them based on these requirements and the program rules.

Please refer to the [BMath](#) course list for full course options.

## Bachelor of Mathematics (BMath)

### Statistics and Mathematical Data Science Major

Students must follow the program rules & requirements listed on the [Programs and Courses Website](#).

#### Semester 1 commencement

**Step 1** Start with the base study plan outlining **Core Courses** and **Major Courses**.

Year 1				
1 <sup>st</sup> Semester (Feb – Jun) <i>Semester 1</i>	<b>MATH1051</b> <i>OR</i> <b>MATH1071 *</b>  2 units – Core Course	<b>MATH1081</b> Advanced Discrete Mathematics  2 units – Core Course	<b>Option</b>  2 units – Program Elective Course	<b>Option</b> Course coded neither MATH nor STAT  2 units – General Elective Course
2 <sup>nd</sup> Semester (July – Nov) <i>Semester 2</i>	<b>MATH1052</b> <i>OR</i> <b>MATH1072 *</b>  2 units – Core Course	<b>STAT1301</b> Advanced Analysis of Scientific Data  2 units – Core Course	<b>Option</b>  2 units – Program Elective Course	<b>Option</b> Course coded neither MATH nor STAT  2 units – General Elective Course
Year 2				
3 <sup>rd</sup> Semester (Feb – Jun) <i>Semester 1</i>	<b>MATH2400</b> <i>OR</i> <b>MATH2401 *</b> (Taken in 4 <sup>th</sup> Semester)  2 units – Core Course	<b>MATH2001</b> <i>OR</i> <b>MATH2901 *</b>  2 units – Major Course	<b>STAT2003</b> Mathematical Probability  2 units – Major Course	<b>Option</b> Course coded neither MATH nor STAT  2 units – General Elective Course
4 <sup>th</sup> Semester (July – Nov) <i>Semester 2</i>	<b>MATH2504</b> Programming of Simulation, Analysis, & Learning Systems  2 units – Core Course	<b>STAT2004</b> <i>OR</i> <b>STAT2904 *</b>  2 units – Major Course	<b>Option</b>  2 units – General Elective Course	<b>Option</b> Course coded neither MATH nor STAT  2 units – General Elective Course
Year 3				
5 <sup>th</sup> Semester (Feb – Jun) <i>Semester 1</i>	<b>STAT3001</b> Mathematical Statistics  2 units – Major Course	<b>STAT3006</b> Statistical Learning  2 units – Major Course	<b>Option</b> Statistics and Mathematical Data Science Level 3 Elective Course  2 units – Major Course	<b>Option</b> MUST be a Level 2 or Level 3 course  2 units – General Elective Course
6 <sup>th</sup> Semester (July – Nov) <i>Semester 2</i>	<b>STAT3004</b> Probability Models & Stochastic Processes  2 units – Major Course	<b>STAT3500</b> Problems & Applications in Modern Statistics  2 units – Major Course	<b>Option</b>  2 units – General Elective Course	<b>Option</b> MUST be a Level 2 or Level 3 course  2 units – General Elective Course

Students who have not achieved/completed a grade of C or higher in Queensland Year 12 Specialist Mathematics will need to complete MATH1050 in their 1<sup>st</sup> semester as a program elective course and move MATH1051 to their 2<sup>nd</sup> semester.

*Continued next page*

**Step 2** Decide on the courses that have an advanced course option, marked with a \* on the study planner.

Students may wish to commence their semester in an advanced course, and if needed, change to the non-advanced version before the end of Week 2. Students will be able to change their course enrolment themselves on SI-Net before the end of Week 2. After this, a late change to enrolment would need to be considered by the Associate Dean (Academic) via the [late addition of course process](#), and may not be approved (additional fees may apply).

Note: Students wishing to complete [MATH2401](#) (the advanced version of MATH2400), will need to move this course to 4<sup>th</sup> semester in their study plan.

**Step 3** Decide on your program elective courses or minor courses, noting semester offerings and prerequisites.

Program Electives are any courses listed on the BMath course list. It does not include general elective courses – which are not listed on the BMath course list.

Program elective courses [SCIE3050](#) and [SCIE3121](#) are recommended courses for students interested in placement and/or research.

Minor: Students choosing to complete a minor should plan their minor courses in their study plan at this step. Minor courses will replace 4 units of program elective courses and 4 units of general elective courses in the study planner above.

No Minor: Students who do not complete a minor must choose at least 4 units of program elective courses to put in their study plan. Students can choose further program elective courses in step 4.

Students can choose to, or may need to, swap the semester they complete their Major Level 3 Elective Courses, Minor courses and program/general electives depending on the semester offerings and prerequisites of their chosen courses. It is the student's responsibility to ensure they comply with the program rules and adhere to the number of units permitted for each section of the program.

**Step 4** Decide on your general elective courses and/or further program elective courses.

General electives can be chosen from any undergraduate program offered at UQ, across any Faculty. Students may wish to search for courses of interest in the UQ [Programs and Courses](#) page or select "Browse by Faculty" on this page to see courses listed in other undergraduate programs.

Students can choose to complete further program electives from the BMath course list if they choose.

Students need to follow the additional program rules when selecting program and general elective courses:

- Students must complete a minimum of 8 units of courses coded neither MATH nor STAT.
- Students can complete a maximum of 24 units of Level 1 courses across the total program, including core courses, major courses, minor courses, program and general electives.

**Step 5** Check prerequisites, incompatibilities, and restrictions for all courses you have selected in your study plan. You can click on the course codes above or find the course on the UQ [Programs and Courses](#) page. You may need to adjust courses in your study plan at this step.

Students will need to specifically check their general elective courses for semester offerings, course restrictions, prerequisites and incompatibilities. Students will be limited to courses available to them based on these requirements and the program rules.

Please refer to the [BMath](#) course list for full course options.

## Bachelor of Mathematics (BMath)

### Statistics and Mathematical Data Science Major

Students must follow the program rules & requirements listed on the [Programs and Courses Website](#).

#### Semester 2 commencement

**Step 1** Start with the base study plan outlining Core Courses and Major Courses.

Year 1				
1 <sup>st</sup> Semester (July – Nov) <i>Semester 2</i>	<b>MATH1051 #</b> Calculus & Linear Algebra I  2 units – Core Course	<b>STAT1301</b> Advanced Analysis of Scientific Data  2 units – Core Course	<b>Option</b>  2 units – General Elective Course	<b>Option</b>  2 units – Program Elective Course
2 <sup>nd</sup> Semester (Feb – Jun) <i>Semester 1</i>	<b>MATH1052 #</b> Multivariate Calculus & Ordinary Differential Equations  2 units – Core Course	<b>MATH1081</b> Advanced Discrete Mathematics  2 units – Core Course	<b>STAT2003</b> Mathematical Probability  2 units – Major Course	<b>Option</b>  2 units – Program Elective Course
Year 2				
3 <sup>rd</sup> Semester (July – Nov) <i>Semester 2</i>	<b>MATH2504</b> Programming of Simulation, Analysis, & Learning Systems  2 units – Core Course	<b>STAT2004</b> <i>OR</i> <b>STAT2904 *</b>  2 units – Major Course	<b>MATH2001</b> Calculus & Linear Algebra II  2 units – Major Course	<b>Option</b> <i>Course coded neither MATH nor STAT</i>  2 units – General Elective Course
4 <sup>th</sup> Semester (Feb – Jun) <i>Semester 1</i>	<b>MATH2400 #</b> Mathematical Analysis  2 units – Core Course	<b>STAT3001</b> Mathematical Statistics  2 units – Major Course	<b>Option</b> <i>Course coded neither MATH nor STAT</i>  2 units – General Elective Course	<b>Option</b> <i>Course coded neither MATH nor STAT</i>  2 units – General Elective Course
Year 3				
5 <sup>th</sup> Semester (July – Nov) <i>Semester 2</i>	<b>STAT3004</b> Probability Models & Stochastic Processes  2 units – Major Course	<b>STAT3500</b> Problems & Applications in Modern Statistics  2 units – Major Course	<b>Option</b> <i>Course coded neither MATH nor STAT</i>  2 units – General Elective Course	<b>Option</b> <i>MUST be a Level 2 or Level 3 course</i>  2 units – General Elective Course
6 <sup>th</sup> Semester (Feb – Jun) <i>Semester 1</i>	<b>Option</b> Statistics and Mathematical Data Science Level 3 Elective Course  2 units – Major Course	<b>STAT3006</b> Statistical Learning  2 units – Major Course	<b>Option</b>  2 units – General Elective Course	<b>Option</b> <i>MUST be a Level 2 or Level 3 course</i>  2 units – General Elective Course

Students who have not achieved/completed a grade of C or higher in Queensland Year 12 Specialist Mathematics will need to complete MATH1050 in their 1<sup>st</sup> semester as a program elective course and complete MATH1051 over Summer Semester. MATH1051 is a required prerequisite for STAT2003 so needs to be completed in Summer Semester for the progression of courses.

*Continued next page*

**Step 2** Decide on the courses that have an advanced course option, marked with a \* on the study planner.

# *Note:* Due to sequencing and semester of offer of courses, students commencing in Semester 2 are not able to complete the advanced course version.

Students may wish to commence their semester in an advanced course, and if needed, change to the non-advanced version before the end of Week 2. Students will be able to change their course enrolment themselves on SI-Net before the end of Week 2. After this, a late change to enrolment would need to be considered by the Associate Dean (Academic) via the [late addition of course process](#), and may not be approved (additional fees may apply).

**Step 3** Decide on your program elective courses or minor courses, noting semester offerings and prerequisites.

Program Electives are any courses listed on the BMath course list. It does not include general elective courses – which are not listed on the BMath course list.

Program elective courses [SCIE3050](#) and [SCIE3121](#) are recommended courses for students interested in placement and/or research.

*Minor:* Students choosing to complete a minor should plan their minor courses in their study plan at this step. Minor courses will replace 4 units of program elective courses and 4 units of general elective courses in the study planner above.

*No Minor:* Students who do not complete a minor must choose at least 4 units of program elective courses to put in their study plan. Students can choose further program elective courses in step 4.

Students can choose to, or may need to, swap the semester they complete their Major Level 3 Elective Courses, Minor courses and program/general electives depending on the semester offerings and prerequisites of their chosen courses. It is the student's responsibility to ensure they comply with the program rules and adhere to the number of units permitted for each section of the program.

**Step 4** Decide on your general elective courses and/or further program elective courses.

General electives can be chosen from any undergraduate program offered at UQ, across any Faculty. Students may wish to search for courses of interest in the UQ [Programs and Courses](#) page or select "Browse by Faculty" on this page to see courses listed in other undergraduate programs.

Students can choose to complete further program electives from the BMath course list if they choose.

Students need to follow the additional program rules when selecting program and general elective courses:

- Students must complete a minimum of 8 units of courses coded neither MATH nor STAT.
- Students can complete a maximum of 24 units of Level 1 courses across the total program, including core courses, major courses, minor courses, program and general electives.

**Step 5** Check prerequisites, incompatibilities, and restrictions for all courses you have selected in your study plan. You can click on the course codes above or find the course on the UQ [Programs and Courses](#) page. You may need to adjust courses in your study plan at this step.

Students will need to specifically check their general elective courses for semester offerings, course restrictions, prerequisites and incompatibilities. Students will be limited to courses available to them based on these requirements and the program rules.

Please refer to the [BMath](#) course list for full course options.



## Frequently Asked Questions (FAQ)

### Program Information

#### Can I study this program part-time?

International students on a student visa must study this program full-time, as per their visa conditions.

Domestic students may choose to complete the program part-time. Part-time students are required to develop their own study plan, however, if you would like assistance with this, please contact the [Faculty of Science](#).

#### Can I study the Bachelor of Mathematics online?

No, this program requires mandatory in person attendance at the University of Queensland St Lucia campus.

#### I have completed study at another university, can I be awarded credit towards this program?

Students who have completed study at another institute, at the equivalent level (AQF Level 7) may be eligible for credit towards this program. Students can utilise the [UQ Credit Precedent Database](#) (CPD) to see if their prior completed study has been previously assessed for credit. Please note that the UQ CPD is a guide ONLY and does not guarantee credit will be awarded.

Students can apply for credit via an [online application](#) form which will be processed by the Faculty of Science.

For further information on the credit Policy and Procedures, please refer to [UQ PPL Recognition of Prior Learning](#).

#### What are the key semester dates for study in this program?

Please refer to the [Academic Calendar](#) for key dates throughout the year.

#### Do I have to complete a major?

Yes. Completing a major is a compulsory part of this program and all students are required to complete a major.

#### Do I have to complete a minor?

No. Minors are optional in the BMath program. Students can add or remove minors at any stage provided they have enough room in their program to complete the remaining courses required without exceeding the 48 unit program allowance.

#### Can I change my major after I have commenced the program?

Students who are in their first or second year of study can usually change their major without impact to their graduation time. However, some majors with a more structured progression may require students to extend their studies by a semester or two. If you have concerns about changing your major, please contact the [Faculty of Science](#).

#### Can I complete two majors or two minors in the program?

It may be possible for students to complete two majors, or one major and two minors. Please contact the [Faculty of Science](#) for further advice on these and other plan combinations.



## Course Information

### What is a course profile?

Please refer to: [What is a course profile?](#)

### Where can I find the electronic course profile?

Please refer to: [Where do I find the course profile for my course?](#)

### Where can I find the course coordinator?

The course coordinator can be found on the course profile. Please refer to question “Where can I find the course profile?”.

### How do I enrol in courses?

Please refer to [Enrolment and class allocation](#) for detailed instructions on enrolling in courses for the upcoming semester.

### What is a prerequisite?

Please refer to: [What does ‘prerequisite’ mean in a course profile?](#)

### Do I need to complete the prerequisites for a course before I take it?

Some courses will have a block which will not allow students to enrol in the course before they have completed the prerequisite course. Other courses may list a prerequisite but will not block students from enrolling without it. It is the student’s responsibility to check the prerequisites listed and complete the prerequisites before enrolling in the course.

Students who choose to take a course without completing the listed prerequisites first, take responsibility for their success in the course. There will be no special dispensation given to students who enrol in a course before completing the prerequisites listed, including (but not limited to) – extension to assessments, deferred exams, extension to CoE, program variation, removal of course.

### What is a recommended prerequisite, and do I need to complete it first?

Recommended prerequisites are courses that are suggested you complete before enrolling in a course, however, are not required to be able to complete the course. It is at the student’s discretion as to whether they would like to complete the recommended prerequisites before the course they are interested in enrolling.

### Can I change to/from an advanced courses?

Students may wish to commence their semester in an advanced course, and if needed, change to the non-advanced version (or vice versa) before the end of Week 2. Students will be able to change their course enrolment themselves on SI-Net before the end of Week 2. After this, a late change to enrolment would need to be considered by the Associate Dean (Academic) via the [late addition of course process](#), and may not be approved (additional fees may apply).

## Study Planner

### Can I enrol in a Level 2 or 3 course sooner than is in the study plan if it doesn't have any prerequisites?

Yes, you can enrol in a Level 2 or 3 prerequisite course that has no prerequisites listed. You may wish to view the course profile to see if any prior knowledge/assumed background is required for the course.

Students should be mindful that UQ courses are coded according to their year level. For example, BIOL1020 is a first-year course because the first number in the course code is a 1. BIOL2006 is a second-year course as the first number in the code is a 2. Level 2 and 3 courses (including those without any prerequisites) will involve a greater level of knowledge and work and therefore, it is not recommended students complete these courses in their first year of study.

Students who choose to take a higher-level course earlier in their program take responsibility for their success in the course. There will be no special dispensation given to students who enrol in a course earlier than the coded course year, including (but not limited to) – extension to assessments, deferred exams, extension to CoE, program variation, removal of course.

## General Electives

### A course I want to study as a general elective has a restriction, can I still enrol?

You will need to request permission from the school running the course. See which school is listed for the course on the UQ [Programs and Courses](#) page and contact them for permission.

### A general elective course I want to study is not offered in the semester I need it, what can I do?

Unfortunately, courses are only available in the semesters on offer as per the UQ website. If a course is not offered in the semester that you have space for it, you will need to select a different course.

### Is there a list of general electives I can view?

No. As UQ has so many courses available for students to choose for general electives, there is not a single list of all general elective courses. Students may wish to search for courses in areas of interest in the UQ [Programs and Courses](#) page or select "Browse by Faculty" on this page to see courses listed in other undergraduate programs.

## Timetable

### How can I find out when my classes will be on?

Students can view the [2026 Public Timetable](#) online to see what the available classes will be on offer for the upcoming semester. Please see the question below for student's personal timetable.

### How do I select my class times?

When the timetabling system is open for students to preference their classes, they can use the Timetable system via their [my.UQ dashboard](#). Please refer to [Enrolment and class allocation](#).