# Bachelor of Mathematical Sciences (Advanced)

<table>
<thead>
<tr>
<th>Year 1</th>
<th>Year 2</th>
<th>Year 3</th>
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<tbody>
<tr>
<td>S 1</td>
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<tr>
<td>MATHS 1011 Maths IA</td>
<td>MATHS 2101 Multivariable &amp; Complex Calculus II</td>
<td>MATHS 3025 Professional Practice III</td>
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<tr>
<td>ENG 1002 Programming (Matlab and C)</td>
<td>MATHS 2102 Differential Equations II</td>
<td>Level III Mathematical Sciences Elective</td>
</tr>
<tr>
<td>MATHS 1015 Advanced Mathematical Perspectives I</td>
<td>MATHS 2103 Probability &amp; Statistics II</td>
<td>Level III Mathematical Sciences Elective</td>
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<td>Level I or II or III Elective</td>
<td>Level II Elective</td>
<td>Level III Mathematical Sciences Elective</td>
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<td>S 2</td>
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<tr>
<td>MATHS 1012 Maths IB</td>
<td>STATS 1005 Statistical Analysis &amp; Modelling I</td>
<td>MATHS 3020 Advanced Mathematical Perspectives III</td>
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<tr>
<td>MATHS 2100 Real Analysis II</td>
<td>MATHS 2203 Advanced Mathematical Perspectives II</td>
<td>Level III Elective</td>
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<tr>
<td>Level I Elective</td>
<td>STATS 2107 Statistical Modelling and Inference II</td>
<td>Level III Elective</td>
</tr>
<tr>
<td>Level I or II or III Elective</td>
<td>Level II Elective</td>
<td>Level III Elective</td>
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* Electives may be chosen from courses offered by the School of Mathematical Sciences, School of Computer Sciences or other courses offered by the University of Adelaide. Students will need to satisfy any specified course eligibility requirements. In particular, students should pay attention to any incompatibilities, restrictions, pre-requisites or assumed knowledge which is listed on Course Planner.

The following electives do not satisfy the program rules for this program: STATS 1000, STATS 1004, STATS 1504, ECON 1008, ECON 1010, ECON 2503 & ECON 2504 cannot be presented as electives toward the BMaSc (Adv).

How to choose an elective course in your area of interest? Please refer to the steps via the link: [https://ecms.adelaide.edu.au/study-with-us/student-support/enrolment](https://ecms.adelaide.edu.au/study-with-us/student-support/enrolment)

**Further Information and Enrolment Advice**
Faculty of Engineering, Computer and Mathematical Sciences
Email: askecms@adelaide.edu.au
[www.ecms.adelaide.edu.au](http://www.ecms.adelaide.edu.au)
# Electives Table

<table>
<thead>
<tr>
<th>Choose from the Following Applied Mathematics Electives</th>
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<tbody>
<tr>
<td>APP MTH 2105 Optimisation and Operations Research II</td>
</tr>
<tr>
<td>APP MTH 3001 Applied Probability III</td>
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<tr>
<td>APP MTH 3002 Fluid Mechanics III</td>
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<tr>
<td>APP MTH 3014 Optimisation III</td>
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<tr>
<td>APP MTH 3016 Random Processes III</td>
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<tr>
<td>APP MTH 3020 Stochastic Decision Theory III</td>
</tr>
<tr>
<td>APP MTH 3021 Modelling with Ordinary Differential Equations III</td>
</tr>
<tr>
<td>APP MTH 3022 Optimal Functions and Nanomechanics III</td>
</tr>
<tr>
<td>APP MTH 3023 Partial Differential Equations and Waves III</td>
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<tr>
<th>Choose from the Following Mathematics Sciences Electives</th>
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<tbody>
<tr>
<td>MATHS 1004 Mathematics for Data Science</td>
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<tr>
<td>MATHS 2104 Numerical Methods II</td>
</tr>
<tr>
<td>MATHS 3012 Financial Modelling: Tools &amp; Techniques III</td>
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<tr>
<td>MATHS 3026 Cryptography III</td>
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<tr>
<th>Choose from the Following Pure Mathematics Electives</th>
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<tbody>
<tr>
<td>PURE MTH 2106 Algebra II</td>
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<tr>
<td>PURE MTH 3002 Topology and Analysis III</td>
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<tr>
<td>PURE MTH 3007 Groups and Rings III</td>
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<tr>
<td>PURE MTH 3009 Integration and Analysis III</td>
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<tr>
<td>PURE MTH 3019 Complex Analysis III</td>
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<tr>
<td>PURE MTH 3022 Geometry of Surfaces III</td>
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<tr>
<td>PURE MTH 3023 Fields and Modules III</td>
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<table>
<thead>
<tr>
<th>Choose from the Following Statistics Electives</th>
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<tbody>
<tr>
<td>STATS 3001 Statistics Modelling III</td>
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<tr>
<td>STATS 3005 Time Series III</td>
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<tr>
<td>STATS 3006 Mathematical Statistics III</td>
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