

Year 12 Advanced Mathematics Problem Solving Course 2025/2026.

Course aims and description.

- This long running year 12 mathematics problem solving course is intended for students whose extant enthusiasm, engagement and ability with the subject is already at a high level.
- The primary aim of this course is the further development of such students' mathematical insight, thinking and problem-solving strategies.
- Participation in this course will enhance such student's preparation for the MAT, AEA and STEP and similar examinations.
- The problems in the calculator free course are unstructured and challenging and largely based on the y12 pure mathematics course.
- The course consists of 12 classes each of 1.5 hours duration (4.30 to 6 pm on a Monday), in university venues, between October 2025 and May 2026.
- There is no course fee.
- Prior study materials are provided to prepare students for each problems class.
- Students who attend regularly will obtain a School of Computing and Mathematical Sciences Certificate of Participation. Students who attend regularly and are successful in the course assignment will obtain a School of Computing and Mathematical Sciences Certificate of Achievement.
- The course has a maximum intake of 25 students. There is an application process with an entrance test. Students who obtain the top 25 marks will obtain a place on the course.
- Should email mathsor@le.ac.uk for the application form.

Course schedule

1. Algebra 1 Sept 29
2. Coordinate Geometry 1 Oct 13
3. Series 1 Nov 10
4. Calculus 1 Nov 24
5. Algebra 2 Dec 15
6. Coordinate Geometry 2 Jan 26
7. Series 2 Feb 2
8. Trigonometry Feb 23
9. Logarithms March 9
10. Integration March 16
11. Optimisation April 20
12. Roots of polynomial equations April 27