

Module Café

How to use this document: It can be difficult to sort out module choices, particularly for third year. Below you'll find a list of most second and third-year maths modules (and some fourth-year modules accessible to third years) followed by a list of names. All the people here are happy to discuss any of the modules they're listed on. Feel free to message them any questions about these modules as well as any questions about module choices in general. For any general questions or for modules not listed below, feel free to message either academic support officer (Gianni Prenol and James Jones).

Second Year Modules

Module	Students
Geometry	Gianni Prenol, James Jones, Itamar Aharoni, Blaine van Rensburg, Luca Seemungal
Combinatorics	Itamar Aharoni, Sean Middlehurst
PDEs	Gianni Prenol, Sophie Battrick, Blaine van Rensburg, Luca Seemungal
Number Theory	Gianni Prenol, James Jones, Blaine van Rensburg, Itamar Aharoni
Intro to math stat	Blaine van Rensburg
Theory of ODEs	Gianni Prenol, Sophie Battrick, Blaine van Rensburg
Introduction to systems bio	Blaine van Rensburg
Stochastic Processes	Itamar Aharoni
Combinatorial optimization	Itamar Aharoni
Differential Equations	See academic supports
Variational Principles	Gianni Prenol, James Jones, Sophie Battrick, Blaine van Rensburg
Programming for Scientists	Itamar Aharoni
Physics of Fluids	Sophie Battrick
Methods of Mathematical Physics	John Toop-Rose
Quantitative Economics	Itamar Aharoni
Stars	Fiona Stanley
Language Modules	Sean Middlehurst

Third Year (contact academic supports for missing modules)

Module	Students
Galois Theory	Gianni Prenol, Sophie Battrick, Rahul Rohatgi
Functional Analysis 1	James Jones, Sophie Battrick, Rahul Rohatgi, Blaine van Rensburg, Fiona Stanley
Measure Theory	Gianni Prenol, James Jones, Blaine van Rensburg, Kian Hatamieh, Rahul Rohatgi
Rings and Modules	Gianni Prenol, James Jones
Topics in math bio	Blaine van Rensburg
Matrix Analysis and Algorithms	Finlay Poole
Algebraic Number Theory	Sophie Battrick, Jonny Dowie
Geometry of Curves and Surfaces	Jonny Dowie
Intro to Topology	Gianni Prenol, James Jones
Set Theory	Jonny Dowie, Sean Middlehurst
Manifolds	Gianni Prenol, James Jones, Blaine van Rensburg
Bifurcations, Catastrophes, and Symmetries	Lucy McArthur
Math Modelling and PDEs	Blaine van Rensburg, Rahul Rohatgi
Machine Learning	Fiona Stanley
Complex Analysis	Rahul Rohatgi, Jonny Dowie, Finlay Poole
Fluid Dynamics	Sophie Battrick
Fractal Geometry	Sean Middlehurst
Groups and Representations	Gianni Prenol, James Jones
Problem Solving	Fiona Stanley
Theory of PDEs	Blaine van Rensburg, Rahul Rohatgi
Commutative algebra	Gianni Prenol, James Jones, Sophie Battrick, Sean Middlehurst
Functional Analysis II	Blaine van Rensburg, Finlay Poole, Rahul Rohatgi
Control Theory	John Toop-Rose
Combinatorics II	Sean Middlehurst
Historical Challenges in Mathematics (NOT the same as History of Maths)	Sophie Battrick, Jonny Dowie
Algebraic Topology	Gianni Prenol, James Jones
Probability Theory	Kian Hatamieh
Weather and the Environment	Sophie Battrick
Physics of Medicine	Sophie Battrick
Chaos and nonlinearity	Sophie Battrick
Third Year Essay	Lucy McArthur
Scientific Computing	Fiona Stanley
Principles of Programming	Fiona Stanley
Computer Graphics	Fiona Stanley

Fourth Year Modules (predominantly those accessible to third years)

Module	Students
Group Theory	Gianni Prenol, James Jones, Jonny Dowie
Dynamical Systems	Jonny Dowie
Applied Dynamical Systems	Finlay Poole
Graph Theory	Sean Middlehurst
Elliptic Curves	Jonny Dowie, Sean Middlehurst
Geometric Group Theory	Sean Middlehurst
Ergodic Theory	Kian Hatamieh
Population Dynamics	Finlay Poole, Jonny Dowie
Mathematics and Biophysics of Cell Dynamics	Blaine van Rensburg
Maths in Action Project	Jonny Dowie, Sean Middlehurst