

Year 1

CS132 Computer Organisation and Architecture
CS133 Professional Skills
CS139 Web Development Technologies
CS140 Computer Security
CS141 Functional Programming

MA133 Differential Equations
MA145 Mathematical Methods and Modelling 2
MA147 Mathematical Methods and Modelling 1

ST120 Introduction to Probability
ST121 Statistical Laboratory [made available for DM students starting 2024/2025]

Year 2

CS241 Operating Systems and Computer Networks
CS249 Digital Communications and Signal Processing
CS255 Artificial Intelligence
CS257 Advanced Computer Architecture
CS258 Database Systems
CS261 Software Engineering
CS262 Logic and Verification
CS263 Cyber Security

MA209 Variation Principles [discontinued starting 2023/24]
MA222 Metric Spaces (not for MEng)
MA243 Geometry
MA249 Algebra II: Groups and Rings [discontinued starting 2023/24]
MA250 Introduction to PDEs
MA251 Algebra I: Advanced Linear Algebra [discontinued starting 2023/24]
MA252 Combinatorial Optimization
MA254 Theory of ODEs
MA256 Introduction to Mathematical Biology
MA257 Introduction to Number Theory
MA259 Multivariable Calculus [discontinued starting 2023/24]
MA261 Differential Equations: Modelling and Numerics [discontinued starting 2023/24]
MA263 Multivariable Analysis [make available for DM students]
MA264 Mathematical Methods and Modelling 3
MA266 Multilinear Algebra [make available for DM students]
MA269 Asymptotics and Integral Transforms
MA2K4 Numerical Methods and Computing [make available for DM students]

ST202 Stochastic Processes [discontinued starting 2023/24]
ST227 Stochastic Processes
ST220 Introduction to Mathematical Statistics [discontinued starting 2023/24]
ST232 Introduction to Mathematical Statistics
ST221 Linear Statistical Modelling [discontinued starting 2023/24]
ST231 Linear Statistical Modelling with R
ST222 Games, Decisions and Behaviour [discontinued starting 2023/24]
ST234 Games and Decisions

Year 3

CS313 Mobile Robotics
CS324 Computer Graphics
CS325 Compiler Design
CS331 Neural Computing
CS342 Machine Learning
CS345 Sensor Networks and Mobile Data Communications
CS346 Advanced Databases
CS348 Social Informatics [made available for DM students starting 2024/2025]
CS349 Principles of Programming Languages
CS352 Project Management for Computer Scientists
CS355 Digital Forensics

MA359 Measure Theory [not allowed together with ST342]
MA377 Rings and Modules
MA390 Topics in Mathematical Biology
MA398 Matrix Analysis and Algorithms
MA3A6 Algebraic Number Theory
MA3B8 Complex Analysis
MA3D1 Fluid Dynamics
MA3D4 Fractal Geometry
MA3D5 Galois Theory
MA3D9 Geometry of Curves and Surfaces
MA3E1 Groups and Representations
MA3E7 Problem Solving [discontinued starting 2023/2024]
MA3K7 Problem Solving with Python [not yet available for DM students, cap of 80]
MA3F1 Introduction to Topology
MA3G1 Theory of PDEs
MA3G6 Commutative Algebra
MA3G7 Functional Analysis I
MA3G8 Functional Analysis II
MA3H0 Numerical Analysis and PDEs
MA3H2 Markov Processes and Percolation Theory
MA3H3 Set Theory

MA3H5 Manifolds
MA3H6 Algebraic Topology
MA3H7 Control Theory
MA3J2 Combinatorics II [not for MEng, as in core already]
MA3J3 Bifurcations, Catastrophes and Symmetry
MA3J4 Math Modelling and PDEs
MA3J9 Historical challenges in Maths [discontinued starting 2023/2024]
MA3K0 High-dimensional Probability
MA3K1 Mathematics of Machine Learning
MA3K4 Introduction to Group Theory
MA3K6 Boolean Functions

ST301 Bayesian Statistics and Decision Theory
ST305 Designed Experiments
ST318 Probability Theory
ST323 Multivariate Statistics
ST329 Topics in Statistics
ST332 Medical Statistics
ST333 Applied Stochastic Processes
ST337 Bayesian Forecasting and Intervention
ST341 Statistical Genetics
ST342 Mathematics of Random Events [not allowed together with MA359]
[ST342 will be renamed to ST350 Measure Theory for Probability starting in 2024/2025]
ST346 Generalised Linear Models for Regression and Classification
ST343 Topics in Data Science

Year 4

CS402 High Performance Computing
CS404 Agent Based Systems
CS409 Algorithmic Game Theory
CS412 Formal Systems Development
CS413 Image and Video Analysis
CS416 Optimisation Methods
CS418 Advanced Topics in Algorithms and Complexity [not available 2023/2024]
CS419 Quantum Computing
CS424 Computational Biology
CS429 Data Mining
CS430 Foundations of Data Analytics
CS435 Advanced Computer Security

MA424 Dynamical Systems
MA426 Elliptic Curves

MA427 Ergodic Theory
MA433 Fourier Analysis
MA442 Group Theory
MA448 Hyperbolic Geometry
MA453 Lie Algebras
MA473 Reflection Groups
MA482 Stochastic Analysis
MA4A2 Advanced PDEs
MA4A5 Algebraic Geometry
MA4A7 Quantum Mechanics: Basic Principles and Probabilistic Methods
MA4C0 Differential Geometry
MA4E0 Lie Groups
MA4E7 Population Dynamics: Ecology and Epidemiology
MA4F7 Brownian Motion
MA4H0 Applied Dynamical Systems
MA4H4 Geometric Group Theory
MA4H8 Ring Theory
MA4H9 Modular Forms
MA4J0 Advanced Real Analysis
MA4J1 Continuum Mechanics
MA4J3 Graph Theory
MA4J5 Structures of Complex Systems
MA4J7 Cohomology and Poincare Duality
MA4J8 Commutative Algebra II
MA4L0 Advanced Topics in Fluids
MA4L2 Statistical Mechanics [not available 2023/2024]
MA4L3 Large Deviation Theory
MA4L6 Analytic Number Theory
MA4L7 Algebraic Curves
MA4L9 Variational Analysis and Evolution Equations [not available 2023/2024]
MA4M1 Epidemiology by Example
MA4M2 Mathematics of Inverse Problems
MA4M4 Topics in Complexity Science [possibly not available 2023/2024]
MA4M5 Geometric Measure Theory [not available 2023/2024]
MA4M6 Category Theory
MA4M7 Complex Dynamics [not available 2023/2024]
MA4M8 Theory of Random Graphs
MA4M9 Mathematics of Neuronal Networks

ST403 Brownian Motion
ST405 Bayesian Forecasting and Intervention with Advanced Topics
ST406 Applied Stochastic Processes with Advanced Topics
ST407 Monte Carlo Methods
ST412 Multivariate Statistics with Advanced Topics

ST413 Bayesian Statistics and Decision Theory with Advanced Topics

ST419 Advanced Topics in Data Science [\[cannot be taken if ST343 is taken\]](#)

ST420 Statistical Learning and Big Data