# Honours Course Selection 2011

**List A:** Choose at least three courses from list A

- **Applied Mathematics Topic A**  
  Advanced Continuum Mechanics with applications to finite elasticity and granular materials

- **Applied Mathematics Topic B**  
  Mathematical Epidemiology: Stochastic models and their Statistical Calibration

- **Applied Mathematics Topic C**  
  System Modelling and Simulation

- **Applied Mathematics Topic D**  
  Chaotic Dynamical Systems

- **Applied Mathematics Topic E**  
  Model Emergent Dynamics in Complex Systems

- **Pure Mathematics Topic A**  
  Lie groups and Lie algebras

- **Pure Mathematics Topic B**  
  Differential Geometry

- **Pure Mathematics Topic D**  
  Topics in Algebra

**List B:** Level III courses, assessed at Honours Level - Choose at most one course from list B

- Mathematical Modelling in Nanotechnology III
- Stochastic Decision Theory III
- Geometry of surfaces III

**List C:** Approved AMSI courses - Choose at most one course from list C

- Geometric, combinatorial, asymptotic and statistical group theory
- Numerical Analysis with Applications
- Monte Carlo Methods
- Geometric Measure theory

**List D:** Level III courses offered within the School and assessed at Level III - Choose at most one course from list D

- Applied Probability III
- Random Processes III
- Topology and Analysis III

- Computational Mathematics
- Waves III
- Biostatistics III

- Differential Equations III
- Coding and Cryptology III
- Logic and Computability III

- Financial Modelling: Tools & Techniques
- Complex Analysis III
- Mathematical Statistics III

- Fluid Mechanics III
- Fields and Geometry III
- Sampling Theory and Practice III

- Optimisation III
- Groups and Rings III
- Statistical Modelling III

- Integration and Analysis III
- Time Series III

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PLEASE RETURN THIS FORM TO THE HONOURS COORDINATOR