Syllabus for MA3238/ST3236: Stochastic Processes I

- Lecture time: Tuesday, Friday 12:00–14:00
- Lecture venue: LT33
- Tutorial time: Thursday 9:00–10:00, 10:00–11:00
  Friday 16:00–17:00, 17:00–18:00
- Tutorial room: Block S17, 06–11

- Lecturer and tutor: Dr Wang Dong
- Office: Block S17, Room 06–20
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- Prerequsite: {MA1101 or MA1101R or MA1508 or GM1302} and {MA2216 or ST2131}
- This module introduces the concept of modelling dependence and focuses on discrete-time Markov chains.
- Major topics: discrete-time Markov chains, examples of discrete-time Markov chains, classification of states, irreducibility, periodicity, first passage times, recurrence and transience, convergence theorems and stationary distributions.
- Textbook:
  - R. Durrett, *Essentials of Stochastic Processes*, Springer, 2nd ed., 2012.
    (This book has a free version `http://www.math.duke.edu/~rtd/EOSP/eosp.html`).
- Assessment: Assessment of students will be based on
  - An in-class test during lecture time (*tentatively* on 7, March 2014), 35%
  - Homework and tutorial participation, 15%
  - Final examination, 50%

  Any student who is absent without a valid reason from an assessment will be given zero mark for that assessment.