

STAT 870 Outline

Course outline

Motivating example: the Lions Gate Bridge.

Basics of probability (2 weeks):

- Events, probability laws, etc.
- Independence
- Conditioning
- Expectations.
- Conditional Expectations.

Course outline continued:

Introductions (\approx 1 week each) to:

- Markov Chains
- Poisson Processes
- Point Processes
- Birth and Death Processes
- Queuing Theory
- Brownian motion and diffusions
- Simulation

Student presentations (one week)