What to read

Reading instructions will be updated after the lectures to reflect what really went down.

- Lecture 1: Integration and probability theory. Chapters 1-4.1 in the lecture notes, most of which is assumed to be known. Chapter 1 of the lecture notes in SF2940 (found on the homepage of that course).
- Lecture 2: Conditional expectation. Section 4.2 in the lecture notes, most of which is assumed to be known. Chapter 3 of the lecture notes in SF2940 (found on the homepage of that course).
- Lecture 3: Martingales. Chapter 5, and 6.1 (just to get a feeling) in the lecture notes.
- Lecture 4: Stopping times and optional stopping. Chapter 7 in the lecture notes.
- Lecture 5: Discrete stochastic integrals. Chapter 8 and 9 in the lecture notes.
- Lecture 6: Discrete Brownian motion and change of measure. Chapter 10 in the lecture notes.
- Lecture 7: The Girsanov Theorem in discrete time. Same material as for the previous lecture.
- Lecture 8: Continuous time martingales. Chapter 11 in the lecture notes.
- Lecture 9: Brownian motion. Chapter 12 in the lecture notes.
- Lecture 10: The Itô integral. Chapter 13 in the lecture notes.
- Lecture 11: Stochastic differential equations and the Itô formula. Chapter 16 and 14 in the lecture notes.
- Lecture 12: Stochastic differential equations and the Itô formula. Chapter 16 and 14 in the lecture notes.
- Lecture 13: Martingale properties of Itô diffusions. Chapter 18 in the lecture notes.
- Lecture 14: Martingale representation. Chapter 15 in the lecture notes.
- Lecture 15: Stopping times and optional stoppning. Chapter 19 in the lecture notes.
- Lecture 16: Stochastic control. Extra material to be handed out.
- Lecture 17: Stochastic control. Extra material to be handed out.
- Lecture 18: Stochastic control. Extra material to be handed out.