

## **Stats 3520b**

### **Topics to be covered for the week of 13 -17 January 2014**

For this week, we aim to cover the following theories/concepts:

1. Analysis of pay-offs for options
2. The law of one price via an example
3. How derivatives are employed in hedging, speculation and arbitrage.  
Some examples will include
  - (a) Use of futures/forwards for hedging
  - (b) Hedging strategies using options
  - (c) Speculation using options
  - (d) Demonstration of arbitrage strategy
4. Futures options

#### **Determination of forward and futures prices**

5. Forward prices for a security that provides no income
6. Forward prices for a security that provides a known cash income
7. Forward prices for a security that provides a known dividend yield

8. Valuing forward contracts
9. Stock index futures
10. Forwards and futures contracts on currencies
11. Futures on commodities
12. The cost of carry