Models in Financial Mathematics 2

Topics for the test (16.12.08 and 21.01.09)

- **Some Stochastic Calculus**
  - Brownian motion (Def. 1)
  - Conditional expectation (Def. 2, Prop. 1)
  - Martingale (square integrable)
  - Itô's integral (Def. 4+5/ Prop. 3+4)
  - Itô's formula (Prop. 5)
- **The Black Scholes model**
  - what is an EMM?
  - 'Fundamental Theorem of Asset Pricing'
  - *finding* the EMM by the help of Prop. 9
- **Bonds**
  - fair price of a zero coupon bond