Risk Management and Corporate Finance

Structure:

1. Introduction: Conditional/unconditional forward transactions, motives for the use of derivatives

2. Futures & Forwards
   - Functionality
   - Hedging strategies
   - Backwardation und contango
   - Cost of carry and arbitrage opportunities

3. Swaps
   - Functionality
   - Hedging strategies
   - Interest-swaps
   - Currency swaps

4. Optionen
   - Functionality
   - Hedging strategies
   - American vs. European options, the problem of early exercise put call parity
   - Delta hedging
   - Valuation at 2 points in time (on complete markets, arbitrage freedom, risk neutral probability)
   - Valuation at several points in time (in binomial model, in continuous time model)
   - Greeks (sensitivities)

5. Value-at-Risk
   - Definition
   - Value-at-Risk and normal distribution
   - Calculation of value-at-risk (historical and Monte Carlo simulation)

Literature:

Hull, John: Optionen, Futures und andere Derivate, 10. aktualisierte Auflage, München u.a.
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