**Chapter 2, section 2.2**

(a)Start the BM on P.53\_6, to Theorem 2.2.1 for continuous sample paths.

(b)Proof the non-differentiability of the sample paths, i.e., Theorem 2.2.11 and the related lemmas.

**Chapter 2, section 2.3,**

The basic properties of BM: bounded quadratic variations, Markov, Martingale

**Chapter 2, section 2.4**

Omit

**Chapter 3, Section 3.1**

Wiener integral

**Chapter 3, Section 3.2**

Ito integral

**Chapter 3, Section 3.3**

Ito Formula

**Chapter 4, Section 3.4** (optional)

Ito’s representation theorem, Martingale representation theorems and Gorsanov theorem.