

**STATISTICS 523:
Advanced Theory of Probability
Spring, 2013**

Tentative Outline

- The Strong Markov Property: PfS Sections 8.7 & 12.5
- Embeddings in Brownian motion: PfS Sections 12.6 and 12.8.
- Brownian motion, continued: PfS Section 12.9.
- CLT's via Characteristic Functions: PfS Sections 10.0 - 10.5
- CLT's via Stein's method: Chen, Goldstein, and Shao
- Infinitely Divisible and Stable Distributions: PfS, Chapter 11
- Stochastic Calculus (a brief introduction); ??