

Syllabus – STOR 890
Fall 2011 (August 24 – December 7)
MW 9:30am – 10:45am
Hanes 117

Instructor:	Jan Hannig	Phone: (919) 962-7511
Office:	330 Hanes	E-mail: jan.hannig@unc.edu
Office Hours:	M 11am-12pm and by appointment	Course home page on http://www.unc.edu/~hannig/STOR890MC

Required Text: C. P. Robert and G. Casella, Monte Carlo Statistical Methods, 2nd edition, Springer

Optional Text: G. Fishman, A first course in Monte Carlo, Duxbury.
G. Fishman, Monte Carlo, Springer

Course Outline: This is an advanced topics course. We plan to cover topics from statistical computations and stochastic optimizations.

Covered Topics: We should cover most of the topics in the textbook. Some important topics include, random number generation, Monte Carlo integration and optimization, Metropolis-Hastings Algorithm, Gibbs Sampler, Convergence Diagnostics. Time permitting we will also cover Reversible Jump algorithm and sequential Monte Carlo.

Assessment: Your grade will be based on class participation, occasional problem sets, and a project.

Important dates:

Final Exam: There will be a take home project due on the published university final exam day.

Homework: Homework sets will be usually assigned from time to time.

Note: The instructor reserves the right to make any changes he considers academically advisable. It is your responsibility to attend classes and keep track of the proceedings.