Advanced Probability and Inference I Statistics 6346 Fall 2015

Lecture: Monday, Wednesday, 12:30 – 1:45, HCB 207

Instructor: Eric Chicken, OSB 210A

Office hours: TBA

Teaching Assistant: Migfei Qiu

Office hours: TBA

Text: There is no required text for this course. Some fine reference books include

Probability and Measure, Billingsley, 1995. A User's Guide to Measure Theoretic Probability, Pollard, 2002.

Goal of Course: Students will be able to use measure theoretic methods to derive and explain probabilistic identities, inequalities and theorems.

Course topics: The material covered may include, but is not limited to,

Measure spaces
Measurable functions
Expectation, conditional expectation
Product spaces
Independence
Convergence, sums, limit theorems
Characteristic functions
Martingales

Exams: There will be four equally weighted exams. The exams are approximately four weeks apart.

Homework: There will be regular homework assignments. Homework will not be collected. These assignments will reinforce lecture and prepare you for the exams.

Course Website: http://campus.fsu.edu

Grades: Your course grade is based on the exams. Final grades are assigned based on your performance on these exams. Your grades are maintained on Blackboard. There will be no extra work available to enhance your grade, so put in the appropriate effort on the assigned homework.

Academic Honor Policy: The Florida State University Academic Honor Policy outlines the University's expectations for the integrity of students' academic work, the procedures for resolving alleged violations of those expectations, and the rights and responsibilities of students and faculty members throughout the process. Students are responsible for reading the Academic Honor Policy and for living up to their pledge to "... be honest and truthful and ... [to] strive for personal and institutional integrity at Florida State University." (Florida State University Academic Honor Policy, found at http://dof.fsu.edu/honorpolicy.htm.)

Americans with Disabilities Act: Students with disabilities needing academic accommodation should:

- (1) register with and provide documentation to the Student Disability Resource Center; and
- (2) bring a letter to the instructor indicating the need for accommodation and what type. This should be done during the first week of class.

This syllabus and other class materials are available in alternative format upon request.

For more information about services available to FSU students with disabilities, contact the:

Student Disability Resource Center 97 Woodward Avenue, South 108 Student Services Building Florida State University Tallahassee, FL 32306-4167 (850) 644-9566 (voice) (850) 644-8504 (TDD) sdrc@admin.fsu.edu http://www.disabilitycenter.fsu.edu/