Statistics 452 (Fall 2011) Syllabus (Tentative)

Wednesday, September 7 Review of Background

Friday, September 9 Transformations of Random Variables

Monday, September 12 Moment Generating Functions

Wednesday, September 14 Interchanging Derivatives and Integrals

Friday, September 16 Conditional Distributions

Monday, September 19 Inequalities

Wednesday, September 21 Exponential Families Friday, September 23 Exponential Families

Monday, September 26 Sufficiency and the Factorization Theorem (ASSIGNMENT #1 DUE)

Wednesday, September 28 Sufficiency and the Factorization Theorem

Friday, September 30 Minimal Sufficiency

Monday, October 3 Support of a Distribution

Wednesday, October 5 Completeness (ASSIGNMENT #2 DUE)

Friday, October 7 Completeness

Monday, October 10 NO CLASS (UNIVERSITY HOLIDAY)

Wednesday, October 12 MIDTERM EXAM

Friday, October 14 Ancillary Statistics and Basu's Theorem

Monday, October 17 Complete Statistics and Basu's Theorem

Wednesday, October 19 Invariance

Friday, October 21 Point Estimation

Monday, October 24 Maximum Likelihood Estimation

Wednesday, October 26 Bayes Estimators

Friday, October 28 Cramér-Rao Inequality

Wednesday, November 2 Equality in the Cramér-Rao Inequality (ASSIGNMENT #3 DUE)

Friday, November 4 Rao-Blackwell Theorem

Monday, November 7 Rao-Blackwell Theorem

Wednesday, November 9 Estimation

Friday, November 11 NO CLASS (UNIVERSITY HOLIDAY)

Monday, November 14 Estimation

Wednesday, November 16 Approximating the Distribution of an Estimator Friday, November 18 Relative Efficiency and Consistent Estimators

Monday, November 21 Central Limit Theorem (ASSIGNMENT #4 DUE)

Wednesday, November 23 Asymptotic Distributions

Friday, November 25 The Median

Monday, November 28 The Median

Wednesday, November 30 Asymptotic Distribution of the MLE

Friday, December 2 Other Types of Estimators (ASSIGNMENT #5 DUE)

Monday, December 5 Final Exam Review

Friday, December 9 FINAL EXAM (14:00 – 17:00)