

SYLLABUS

STA 4321
STA 5325

Introduction to Probability
Fundamentals of Probability

Fall, 2013
Fall, 2013

Instructor: Malay Ghosh

Office: 223 Griffin-Floyd Hall

Phone: 273-2992

E-Mail: ghoshm@stat.ufl.edu

Office Hours: 4th period, M W or by appointment.

Objective: The objective of STA 4321/ STA 5325 is to introduce students to the basic aspects of probability theory and some basic distributions. We will cover topics such as the different laws of probability, the notion of independence, conditional probability and Bayes Theorem, general notions of distribution functions, probability functions, probability density functions, expectation, variance, covariance, correlation, moments and moment generating functions. Specific distributions such as the binomial, geometric, negative binomial, hypergeometric, Poisson, uniform, normal, gamma, beta will also be covered. We will cover basically Chapters 2-6 of “Mathematical Statistics with Applications” by Wackerly, Mendenhall and Scheaffer, 7th Edition.

Policy: A student’s grade for the Fall Semester is determined from scores on the quizzes (25%) and three exams (25% each). The quizzes will be based entirely on the assigned homework. I will take the best 5 of the 8 quizzes. I WILL NOT GIVE ANY MAKE-UP EXAM EXCEPT UNDER UNAVOIDABLE CIRCUMSTANCES.

Quiz and Exam Dates:

Quiz 1: 8/30; Quiz 2: 9/9; Quiz 3: 9/16.

EXAM 1: September 23, 2013.

Quiz 4: 10/4; Quiz 5: 10/11.

EXAM 2: October 18, 2013.

Quiz 6: 10/28; Quiz 7: 11/4; Quiz 8: 11/20

EXAM 3: December 4, 2013

Course Outline:

A. Chapter 2: 2.1-2.10.

B. Chapter 3: 3.1-3.9, 3.11.

C. Chapter 4: 4.1-4.10.

D. Chapter 5: 5.1-5.9, 5.11.

E. Chapter 6: 6.1-6.6.

Textbook: Mathematical Statistics with Applications (7th Edition). Wackerly, Mendenhall and Scheaffer, Brooks/Cole, Cengage Learning.

Homework:

Chapter 2: 2.1, 2.7, 2.8, 2.11, 2.13, 2.15, 2.17, 2.19, 2.28, 2.31, 2.33, 2.38, 2.40, 2.43, 2.49, 2.50, 2.51, 2.53, 2.63, 2.72, 2.73, 2.76, 2.77, 2.79, 2.80, 2.88, 2.94, 2.95, 2.97, 2.98, 2.101, 2.104, 2.110, 2.112, 2.114, 2.116, 2.120, 2.124, 2.125, 2.130, 2.133, 2.135.

Chapter 3: 3.1, 3.3, 3.4, 3.8, 3.11, 3.12, 3.14, 3.20, 3.25, 3.27, 3.31, 3.34, 3.37, 3.39, 3.41, 3.45, 3.48, 3.49, 3.53, 3.58, 3.61, 3.69, 3.70, 3.71, 3.79, 3.90, 3.92, 3.103, 3.107, 3.113, 3.117, 3.122, 3.127, 3.130, 3.132, 3.139, 3.147, 3.148, 3.153, 3.155, 3.158, 3.167, 3.169.

Chapter 4: 4.8, 4.11, 4.13, 4.15, 4.18, 4.19, 4.27, 4.30, 4.31, 4.33, 4.38, 4.39, 4.40, 4.47, 4.51, 4.64, 4.66, 4.74, 4.80, 4.91, 4.95, 4.104, 4.109, 4.124, 4.126, 4.129, 4.131, 4.136, 4.137, 4.139, 4.145, 4.146, 4.149, 4.153.

Chapter 5: 5.1, 5.3, 5.9, 5.10, 5.15, 5.17, 5.18, 5.19, 5.21, 5.23, 5.26, 5.33, 5.37, 5.38, 5.45, 5.47, 5.50, 5.52, 5.59, 5.61, 5.69, 5.72, 5.73, 5.76, 5.81, 5.89, 5.90, 5.94, 5.100, 5.102, 5.104, 5.105, 5.108, 5.113, 5.120, 5.123, 5.125, 5.137, 5.139, 5.141.

Chapter 6: 6.2, 6.3, 6.5, 6.9, 6.11, 6.15, 6.18, 6.20, 6.26, 6.28, 6.32, 6.34, 6.38, 6.40, 6.45, 6.48, 6.52, 6.54, 6.59, 6.60, 6.74, 6.76, 6.78, 6.80, 6.81, 6.88.