GEORGE WASHINGTON UNIVERSITY
DEPARTMENT OF STATISTICS

Course Information

STAT 6201-13 Mathematical Statistics
FALL 2015

Lectures:  R 6:10 PM – 8:40 PM at Monroe 352
Instructor: Dr. Srinivasan Balaji, Assistant Professor

Office Address: Room #564, Rome Hall, 801 22nd Street
Telephone Number: 202-994-3383
E-mail: balaji@gwu.edu

Office Hours: Tuesdays 2:00 – 3:00 PM and Thursdays 2:00 – 3:00 PM

Text: Statistical Inference (Second Edition) by Casella, George and Berger, Roger
Publisher: Duxbury Press. ISBN/ISSN 0-534-24312-6

Supplementary Text: Description Introduction to Mathematical Statistics (5th Edition),
by Hogg, and Craig; Publisher: Prentice Hall; ISBN 0-02-355722-2

Course Description:

This is the first part of a two-semester course in Mathematical Statistics. Probability
theory is presented as a mathematical foundation for statistical inference. Axiomatic
probability is introduced and then some standard discrete and continuous probability
distributions are presented. Joint distributions and transformations are discussed.
Probabilistic convergence concepts are introduced. Chapters 1 to 5 from the textbook will
be covered. Some external readings may be assigned. Any changes will be announced in
the class.

Course Prerequisites: Math 33 (Multivariable Calculus), Math 124 (Linear Algebra). Please refresh your calculus and algebra if you have not taken these
courses recently. I expect everyone to know the integrals of polynomials, trigonometric,
logarithmic and exponential functions.
Homework Assignments, Quizzes and Exams

Homework Assignments will be given after the completion of each chapter.

Quizzes will be given on all the classes (except the first class) and will be graded.

There will be a midterm and a Final exam. All exams are closed book. However you may be allowed to bring a sheet of formulas to the exams.

Midterm Exam: Thursday, October 15, 2015
Final Exam: Exam Week (To be announced soon)

Grading Policy

Final grade is computed as follows:

Homework Assignments: 10%
Quizzes 40%
Midterm Exam: 20%
Final Exam: 30%

Class Policy

Late work will not be accepted and make-up exams will be given strictly for medical or emergency purposes with proper documentation.

LEARNING OUTCOMES
As a result of completing this course, students will be able to:
1. Know and familiarize with the probabilistic tools that are imminent to advanced inference
2. Have a global view of the interplay between probability and statistics.
3. Formulate probabilistic models for science, engineering, economics, public policy and many others areas of applications.

ACADEMIC INTEGRITY

I personally support the GW Code of Academic Integrity. It states:: “Academic dishonesty is defined as cheating of any kind, including misrepresenting one's own work, taking credit for the work of others without crediting them and without appropriate authorization, and the fabrication of information.” For the remainder of the code, see: http://www.gwu.edu/~ntegrity/code.html
SUPPORT FOR STUDENTS OUTSIDE THE CLASSROOM

DISABILITY SUPPORT SERVICES (DSS)
Any student who may need an accommodation based on the potential impact of a disability should contact the Disability Support Services office at 202-994-8250 in the Marvin Center, Suite 242, to establish eligibility and to coordinate reasonable accommodations. For additional information please refer to: http://gwired.gwu.edu/dss/

UNIVERSITY COUNSELING CENTER (UCC) 202-994-5300
The University Counseling Center (UCC) offers 24/7 assistance and referral to address students' personal, social, career, and study skills problems. Services for students include:
- crisis and emergency mental health consultations
- confidential assessment, counseling services (individual and small group), and referrals
  http://gwired.gwu.edu/counsel/CounselingServices/AcademicSupportServices

SECURITY
In the case of an emergency, if at all possible, the class should shelter in place. If the building that the class is in is affected, follow the evacuation procedures for the building. After evacuation, seek shelter at a predetermined rendezvous location.