**The George Washington University**  
Department of Statistics

**STAT 1053-12 (CRN 10536) – Syllabus**  
Fall 2016 (August 29 - December 20, 2016)  
Lectures: TR 3:45 PM – 5:00 PM, Funger 108

**Instructor:** Dr. Subrata Kundu, Rome Hall 750. kundu@gwu.edu Phone: 202-994-6355  
**Office Hours:** R: 1:00p - 3:00p and by appointment.  
**Course website:** [http://blackboard.gwu.edu/](http://blackboard.gwu.edu/), Log-in using your NetID.

**Course Structure:** The course consists of two lectures (two hours and thirty minutes) and one recitation section (50 minutes) per week. Your grade is based on quizzes, projects, one midterm and the final. Your TA will lead the recitation section. Your TA will go over problems similar to the HW problems during recitation sessions.

**Textbook:** STATISTICS, 13th edition by McClave and Sincich and MyStatlab (You are advised to get it before the semester starts). You are required to have a scientific calculator for the quizzes and for the tests. Student Solution Manual is optional. You will have to use a statistical software called SPSS for data analysis.

**Learning Outcome:** As a result of completing this course, students will be able to:  
1. Obtain descriptive statistics like measures of central tendency, variability, correlation coefficient; apply laws of probability, work with random variables, in particular the binomial and normal distributions.  
2. Have basic idea about sampling distribution and Central limit theorem.  
3. Make Statistical Inference, in particular they will be able to construct large-sample and small-sample confidence intervals; perform large-sample and small-sample tests of hypotheses.  
4. Find the least-squares equation for simple linear regression and apply.

**Course Content:** The aim of the course is to introduce basic concepts of statistics and applications in social sciences so that you will be able to understand simple data analysis. The course will cover the material in chapters 1 – 9 and chapter 11 and some other external readings. Any changes will be announced on Blackboard.

**Expected workload:** Average minimum amount of independent, out-of-class, learning expected per week. In a 15 week semester, including exam week, students are expected to spend a minimum of 100 minutes of out-of-class work for every 50 minutes of direct instruction, for a minimum total of 2.5 hours a week. This is a 3-credit course that includes 2.5 hours of direct instruction, one hour of recitation and a minimum of 5 hours of independent learning.

**Homework and Quizzes:** Homework will be assigned every week. Homeworks will not be collected. However, there will be weekly quizzes given in the recitation sessions/lectures. There you will be tested on questions similar to the assigned homework. You are expected to do the homework problems and maintain a separate notebook for that. No make-up quizzes will be given and you will receive zero for any quiz you miss for any reason. You will get about 20 - 25 minutes to take the quiz. Some of the quizzes will be unannounced and some of them will be take home.

**Midterm:** There will be one closed book midterm examination (Tentatively on Thursday, October 20th, in class). If the midterm is missed, you will receive zero credit for that part of the grade. **No make-up midterm will be given.** In exceptional circumstances (e.g. well-documented medical problems), a missed midterm will not be counted. In the event that you are going to miss an examination/quiz, you must notify me prior to the examination/quiz.
Projects: There will be one or two computer projects involving the use of SPSS to statistically analyze data. You will be required to submit a written report.

Final Exam: In accordance with university policy, the final exam will be given during the final exam period (Tentatively, Tuesday, December 20th, 3-5p) and not the last week of the semester. Final will be cumulative. No make-up final will be given.

Course Grading: Your final letter grade will be based on a total score computed as follows. The score you get in relation to the rest of the class will determine your grade. A grade of INCOMPLETE will ONLY be given to a student who is passing the course and cannot complete the course due to illness or other (well documented) circumstances beyond their control.

<table>
<thead>
<tr>
<th>Component</th>
<th>Percentage</th>
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</thead>
<tbody>
<tr>
<td>Class Participation and Quizzes</td>
<td>40%</td>
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<tr>
<td>Computer Projects</td>
<td>10%</td>
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<tr>
<td>Midterm exam</td>
<td>25%</td>
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<td>Final exam</td>
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University Policies:

University Policy on Religious Holidays: i) Students should notify faculty during the first week of the semester of their intention to be absent from class on their day(s) of religious observance. ii) Faculty should extend to these students the courtesy of absence without penalty on such occasions, including permission to make up examinations. iii) Faculty who intend to observe a religious holiday should arrange at the beginning of the semester to reschedule missed classes or to make other provisions for their course-related activities.

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 Rome Hall, Suite 102, to establish eligibility and to coordinate reasonable accommodations. For additional information please refer to: gwired.gwu.edu/dss/

Mental Health Services 202-994-5300: The University’s Mental Health Services 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. counselingcenter.gwu.edu/

Code of Academic Integrity: All examinations, papers, and other graded work products and assignments are to be completed in conformance with The George Washington University 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: https://studentconduct.gwu.edu/code-academic-integrity

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 (Front of Smith center).

Other: You MUST keep your cell phone off during classes. Absolutely no eating in the classroom.