**GEORGE WASHINGTON UNIVERSITY**
**DEPARTMENT OF STATISTICS**

**Course Information**

**STAT 1053-10    Introduction Statistics for the Social Sciences (CRN 40447)**
**FALL 2023**

**Lectures:** *Mondays and Wednesdays 3:45 PM – 5:00 PM at FNGR 108*

**Instructor**: Dr. Srinivasan Balaji

**Office Address**: Room #767, Rome Hall, 801 22$^{nd}$ Street NW, Washington, DC
Telephone Number: **202-994-3383**
E-mail: **balaji@gwu.edu**

**Office Hours**: Mondays and Tuesdays 2:00 PM– 3:00 PM and by appointment.

**Lab:** The class is divided into 3 sections (Stat 1053-30 through Stat 1053-34) of around 30 students each for lab sessions. These sessions meet at varied times on Wednesdays and please make sure that you attend the lab for which you are enrolled. TAs will be conducting the labs and they will also have office hours, which will be informed soon.

**Course Description:** The course will cover the basics of Statistics, Probability and their applications in the social sciences. The main topics to be covered include Descriptive Statistics for univariate and bivariate data, probability and random variables, Binomial and normal distributions, confidence intervals and hypothesis testing, correlation and regression. Most of the optional sections will be skipped.

**TEXT:** Statistics by McClave, and Sincich, 13$^{th}$ Edition, Prentice Hall Press. We will be using MyStatLab for the course that comes with the Etext which is sufficient. You do not need to buy a hardcopy of the text.

**You will have to enroll into MYSTATLAB through the blackboard and purchase it. It gives access to the tool and the Etext and costs around $61.**

**Note: You will also need a calculator such as TI-83 for the class. Calculators are allowed in all exams and quizzes.**

**Software:** SPSS. It can be accessed through GWU cloud and also available in all the computer labs at GWU.

**Blackboard:** I will be posting the lecture notes in the blackboard and will be communicating and sending updates to students using blackboard. **Please check your emails regularly and read them carefully.** I will also be posting SPSS project, Homework problems, etc., in the blackboard. Students will receive an email after I post the materials in the blackboard.

**Prerequisites:** The course does not require any background in Calculus. Basic knowledge of Algebra and Arithmetic are sufficient.

**Lectures and Recording:** All lectures will be recorded using the lecture capture tool. Students are strongly encouraged to attend classes, though the recorded lectures will be available, after each class. Please note that we will continue to have in-person classes throughout this semester. In case of any travel or an emergency, I may switch to online lectures or will arrange a substitute for those classes. I will inform the class accordingly in such a situation.

**Lab and Recitation:** There will be a lab every week on Thursday for which you are enrolled. Labs will be conducted by graduate teaching assistants (GTAs). They will go over the problems from the text and also will discuss the materials from the previous week's Quiz. Sometimes there may be a quiz given in the lab.

**MyStatLab Homework**

MyStatLab, the interactive tool will be used to post the homework assignments. These homework assignments will be graded. Further, homework problem list for the entire course from the text will be posted and these are just for your practice. You are expected to work through the problems every week based on the materials covered for that week.

**Weekly Quizzes**

There will be a 20 to 30 minute quiz each week, based on the topics covered in the previous week. These are blackboard multiple choice quizzes which will be automatically graded. The quizzes will be posted on Thursday evenings at 6 PM and will be due on Fridays at 6 PM. That is, you will have 24 hours to complete the quiz. Once you logon to the quiz, you should complete it in 30 minutes. (Students enrolled with DSS will get 45 minutes for the quiz).

**SPSS Project**

There will be an SPSS project consisting of a few problems, where you will be using the SPSS software to do the problems. SPSS project will be given after the midterm exam and will be due on the final exam day. SPSS is available in all the labs at GWU and also can be accessed from the GWU cloud.

**Exams**

There will be a closed book midterm and a closed book Final exam.

**Midterm Exam**: **Wednesday**, **October 11, 2023**, 3:45 – 5:00 PM
**Final Exam**: To be announced (Will be during the Final exam week)

**Note: DSS students will get 1 ½ times for all the quizzes and exams. For example, if an exam is for 2 hours, then the DSS**

**students will get 3 hours. If the quiz is for 30 minutes, DSS
students will get 45 minutes.**

 **Grading Policy**

Final grade is computed as follows:

MyStatLab Homework: 20%
Quizzes: 20%
SPSS Project: 5%
Midterm Exam: 25%
Final Exam: 30%

**Tentative Class Schedule (Week by Week)**

**Week 1 – Chapters 1 and 2**
**Week 2- Chapter 2 continued**
**Week 3- Chapter 2 continued**
**Week 4- Chapter 3**
**Week 5 – Chapter 3 continued and Chapter 4**
**Week 6- Chapter 4 Continued**
**Week 7- Midterm Exam (on March 08, 2023)**
**Week 8- Chapter 5**
**Week 9 – Chapter 5 and Chapter 6**
**Week 10 – Chapter 7**
**Week 11 – Chapter 7 and Chapter 8**
**Week 12 – Chapter 8 Continued**
**Week 13- Chapter 9**
**Week 14 – Chapter 9 and Chapter 11**
**Week 15 – Chapter 11 continued**
**Week 16 – Review**

**LEARNING OUTCOMES**:
 At the end of the semester you should be able to:
 --Apply laws of probability
 --Construct and interpret large-sample and small-sample confidence intervals
 --Evaluate evidence for and against hypotheses using statistical tests
 --Find the least-squares equation for simple linear regression and assess the utility of the
 mode

**ATTENDANCE POLICY:** Attendance for the class is not mandatory. However I expect you to attend the classes without fail. I suggest that you inform me at least one day prior to your absence. If you are sending me emails regarding attendance write the subject to be Attendance or Absence. In my several years of experience, I have observed that students who come to classes regularly perform well in the exams and quizzes.

**AVERAGE MINIMUM AMOUNT OF OUT-OF-CLASS OR INDEPENDENT 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. A 3-credit course should include 2.5 hours of direct instruction and a minimum of 5 hours of independent learning or 7.5 hours per week. More information about GW's credit hour policy can be found at: provost.gwu.edu/policies- forms (webpage); or provost.gwu.edu/files/downloads/Resources/Assignment-Credit-Hours-7-2016.pdf (form)**

**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.**
**Note: Stat 1051,1053, 1091, 1104, 1111, 1127 are similar courses and credit for only one of these courses can be  given. Please contact me for further information**