

Department of STATISTICS
George Washington University
Syllabus
INTRODUCTION STATISTICS For the Social Science
STAT1053-10 – Spring 2023
[01/17/23 - 05/01/23]
Credit Hour: 3

Course: STAT 1053 – 10
Monday, Wednesday 09:35 - 10:50 AM
Funger Hall (FNGR) Room 221

Instructor: Hamid Semiyari, PhD
Office Hours: Monday, 11:00 AM–12:00 PM and by appointment
Office Location: TBA
Contacts: Hamidreza.Semiyari@gwu.edu
TA TBA

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.

TEXTBOOK & COURSE MATERIALS

Required Text: Statistics by McClave, Benson and Sincich, 13th 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 is available in the GWU cloud and can be accessed. It is also available in all the computer labs at GWU.

Blackboard: I will be posting the lecture notes in the blackboard. I will also 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.

Lab and Recitation: There will be a lab every week 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. **There will be no make-up for missing quizzes.**

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, March 01, 2023

Final Exam: To be announced (Will be during the Final exam week)

RESPECT FOR DIVERSITY

Respect for Diversity: It is my intent that students from all diverse backgrounds and perspectives be well served by this course, that students' learning needs be addressed both in and out of class, and that the diversity that students bring to this class be viewed as a resource, strength and benefit. It is my intent to present materials and activities that are respectful of diversity: gender, sexuality, disability, age, socioeconomic status, ethnicity, race, and culture. Your suggestions are encouraged and appreciated. Please let me know ways to improve the effectiveness of the course for you personally or for other students or student groups.

SPECIAL REQUESTS FROM YOUR INSTRUCTOR ...

Please ...

- *Your emails must have your full name, course number (STAT1051) and a mention of the issue in the SUBJECT line of the email.*
- *Turn off your cell phones during the class.*

- Do not engage in conversation with your neighbors while the instructor teaches.
- Do not disturb the class or your classmates.
- Avoid tardiness. Come to class on time and do not leave before the class ends.

AVERAGE MINIMUM AMOUNT OF LEARNING TIME EXPECTED PER WEEK

The University policy states:

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, totaling a minimum of 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).

COURSE POLICIES

- Exam is in-class tests; there will be no take-home tests. They are closed-textbook and closed-note.
- There will be **no** make-up exam (*except for very special reasons*) or extra-credit assignments.
- Students must bring a calculator for quizzes and tests; sharing of calculators not allowed. Cell phones are not allowed during the quizzes and tests.
- **Assignments submitted after the deadlines will not be accepted.**
- Incomplete: A grade of INCOMPLETE will ONLY be given to a student who is *passing* the course and cannot complete the course due to *well documented* circumstances beyond their control. University policies on teaching are available at <http://www.gwu.edu/~academic/Teaching/main.htm>
- Email: The instructor will try to respond to emails sent during normal business hours on Monday-Thursday and by Friday within 24 hours. Email sent at night will be considered to have arrived the following morning and email sent over the weekend will be considered as arriving on Monday morning.
- There will be absolutely no tolerance of dishonest conduct during the exams, and severe measures will be taken against dishonest conduct. University academic honesty policies will be enforced – check www.gwu.edu
- Religious Holidays: Students can take religious holidays off.
- Courtesy rules: **No cell phone** calls; please turn off your cell phones during class sessions. **No consumption of food** is allowed; drinks are allowed when consumed in a quiet manner.
- [NOTE: for university policies on teaching, see <http://www.gwu.edu/~academic/Teaching/main.htm>]

Late Assignments/ Quiz/ Exam/ Project Policy:

There will be **no makeup** or **retake** for Quizzes, Exams (midterm and Final), and Project. MyStatLab Assignments can be submitted up to one week late after the due date. **Late MyStatLab assignments** are subject to **20% penalty**.

No late assignments will be accepted under any circumstances.

There will be In-Class Midterm and In-Class Final

Tentative Class Schedule (Week by Week)

Week 1 – Chapters 1

Week 2- Chapter 2

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

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

Remark: Please note that we will continue to have in-person classes throughout this semester. In case if I need to travel on 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.

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 model

GRADING POLICY

●Quizzes: 20% ●Mid-Term: 25% SPSS Project: 5%

●Final Exam: 30% ●Homework Assignments: 20%

GRADING SCALE

- A = 94-100%; A- = 90-93%;
- B+ = 87-89%; B = 83-86%; B- = 80-82%;
- C+ = 77-79%; C = 73-76%; C- = 70-72%;
- D+ = 67-69%; D = 63-66%; D- = 60-62%;
- F <60%

EXAM SCHEDULE

- Midterm Exam: Wednesday, March 01, 2023 (*Tentative*)
- Final Exam Date: To be announced by the University.
AS PER UNIVERSITY POLICY, THE FINAL EXAM WILL BE GIVEN DURING THE FINAL EXAM PERIOD AND NOT THE LAST WEEK OF THE SEMESTER

INCOMPLETE GRADE

Incomplete grade will only be granted if “a student, for reasons beyond the his/her control, is unable to complete the work of the course, and if the instructor is informed of, and approves, such reasons before the date when grades must be reported”. ***An Incomplete may only be given if the student asks for such a grade and if s/he has been passing in the course until such time as the Incomplete is requested.***

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 do not come to classes regularly perform poorly 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:

<https://studentconduct.gwu.edu/academic-integrity>

SUPPORT FOR STUDENTS OUTSIDE OF THE CLASS ROOM

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 to establish eligibility and to coordinate reasonable accommodations. For additional information please refer to: <http://gwired.gwu.edu/dss/> The DSS office is located in GWU's Rome Hall, Suite 102, 801 22nd Street, NW, Washington, DC 20052.

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>

MENTAL HEALTH SERVICE: 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. For additional information see: counselingcenter.gwu.edu/

UNIVERSITY POLICY ON OBSERVANCE OF RELIGIOUS HOLIDAYS

In accordance with University policy, 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. For details and policy, see: students.gwu.edu/accommodations-religious-holidays.

SECURITY

In the case of an emergency, follow the evacuation procedures for the building. After evacuation, seek shelter at a predetermined rendezvous location. An evacuation will be considered if the building we are in is affected or we must move to a location of greater safety. We will always evacuate if the fire alarm sounds. In the event of an evacuation, please gather your personal belongings quickly and proceed to the nearest exit.

The Emergency Preparedness Information is available for download at <http://campusadvisories.gwu.edu/faculty>.