202103_Intro-Stat in Social Science_STAT_1053_11 ⌄   Syllabus   Edit Mode is: ON

Syllabus ⌄

Build Content ⌄   Assessments ⌄   Tools ⌄   ↑↓

Instructor Information ⌄

Enabled: Statistics Tracking

Instructor: Dr. Subrata Kundu

Email: kundu@gwu.edu
Phone: 202-994-6355
Zoom: See the link on the left
Office Hours: Tuesdays, 4-5pm (in person) & Thursdays, 1-2 p ET (on zoom)

TA:

- Kehan Sui
- Sections: 39
- Email: suikehan@gwu.edu
- Office Hours: Monday 9am-10am(online), Wednesday 3:50pm-4:50pm(in person)

- Zeyu Yang
- Sections: 40
- Email: zyang42@gwu.edu
- Office Hours: Monday 11:00 am-12:00 pm (online), Wednesday 4:45-5:45 pm (in person) at Rome 753

Course Description ⌄

Enabled: Statistics Tracking

This 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.

Credit Hour Policy ⌄

For each credit, students are expected to spend a minimum of 100 minutes in independent learning for every 50 minutes of direct instruction for a minimum total of 2.5 hours per week or 37.5 hours for the semester. This course being a 3-credit course, would include 2.5 hours of direct instruction (recorded lectures and remote online instruction) and a minimum of 5 hours of independent learning per week for a combined minimum total of 7.5 hours per week or 112.5 hours per semester. It is expected that courses will include significant synchronous elements, whereby students are engaging with the faculty member either through course discussions or lectures.

See the "Assignment of Credit Hour Policy" at provost.gwu.edu/policies-procedures-and-guidelines for more information.

Course Objectives ⌄

Enabled: Statistics Tracking

By the end of this course, you will be able to:

- Identify, interpret, calculate, and analyze descriptive and summary statistics using graphical and numerical methods.
- Calculate probability using various laws.
- Make statistical inferences about a population based on random samples.
- Model bivariate data using least-squares method for simple linear regression.
- Evaluate and analyze statistical findings as they relate to problems in Social Sciences using softwares.
- Solve for sample characteristics using the sampling distribution for known populations.

Academic Prerequisites ⌄

Enabled: Statistics Tracking

There are no prerequisites. This is a required course and counts towards the CCAS General Education Curriculum (GPAC). This course does not require a background in calculus. Basic knowledge of algebra and arithmetic are sufficient.

Please note that STAT 1051, 1053, 6104, 1111, and 1127 are related in subject matter, and credit for only one of them may be applied towards a degree.

Technology Prerequisites ⌄

Enabled: Statistics Tracking

As a learner in this course, you need to ensure you have the required technology and skills necessary to fully participate.

You should be able to:

- Use a personal computer (w/ webcam) and its peripherals
- Download and install any software needed for the course
- Use email and other communication tools with attachments

- Access your GW email for all university communication (see Office of the Registrar website)
- Use word processing and other productivity software to submit assignments
- Use web conferencing tools to collaborate with other course participants
- Use your computer to upload documents, recordings, and images
- Seek technology help when necessary by contacting the GW Division of Information Technology on (202) 994-4948 or ithelp@gwu.edu

If you have any problems with the software in this course, please reference the **Technology Help** link in the left navigation menu in our course on Blackboard.

Textbooks and Materials

Enabled: Statistics Tracking

- **Textbook:** McClave, James and Sincich, Terry. Statistics (updated 13th Edition). Boston: Pearson, 2017. *(e-text Comes with MyStatLab.)*
- **Required Software:** MyStatLab 18 week access code **(ISBN 9780137347667) -- Activate it from blackboard**
- **Statistical Software:** SPSS (Can be downloaded using vpn, Available at the virtual computer lab (https://academiccommons.gwu.edu/virtualcomputerlab) and CCAS Cloud.)
- **Calculator:** Any Calculator with Statistical functions.
- **Optional:** Student Solution Manual - comes with My Stat Lab

Methods of Instruction and Assessment

Enabled: Statistics Tracking

This course uses the following methods of instruction and assessment. Their overarching purpose is to provide opportunities for active learning and skills development, which will support you in achieving course objectives.

Methods of instruction

- **Direct Lectures:** Each week the instructor will meet with the students in person during regular class time
- **Instructional Videos:** At times, the instructor will be uploading a brief content overview that highlights the textbook readings. Additionally, some weeks will include 1-2 brief videos reviewing how to conduct statistical analyses.

- **Lecture Notes:** Lecture notes will be provided via .pdf documents. These notes are required reading, as they provide in-depth information relating to each module of study.

- **Readings:** Students will be responsible for reading few sections of a chapter from the textbook each week.

- **Discussions:** Students will be participating in discussion forums that relate statistics to real-world social science issues. Students will respond to at least one classmate's post per forum.

Methods of assessment

The following assessments are indicators of your progress in the course and are intended to help you achieve course objectives.

- **Class Participation 5%:** This course is designed to be interactive. Learners are expected to participate in classrooms, discussion board exchanges and respond to at least one peer's post per weekly discussion forum.

- **MyStatLab Homework 15%:** Two types of Homeworks will be assigned in every session.
  - **MyStatLab Homework Assignments:** You will be solving Problems using MSL. These will be graded.
  - **Practice Homework Assignments:** Occasionally practice HW problems will be assigned from the book. These will not be collected. However, 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.

- **Quizzes 12%:** A total of Nine quizzes will be given during the semester. Quizzes will cover materials from the current chapter, and may include topics from previous chapters. **No make-up quizzes will be given**, and learners will receive zero points for any missed quiz, for any reason. Learners will get approximately 10-15 minutes for each quiz. Some of these quizzes will be given online. Three lowest quiz scores will be dropped.

- **Midterms 36%:** Two proctored in class midterm exams will be given.

- **SPSS Project 12%:** Learners will be assigned an SPSS project. Learners are required to use the SPSS software to complete the problems. SPSS is available at the VCL (https://academiccommons.gwu.edu/virtualcomputerlab), it can be downloaded for free from the university IT and also can be accessed from the GWU-CCAS cloud. The SPSS project will be given in three parts (Weeks 3, 11, and 12) and will be due on the final exam day. A grading rubric will be provided.

- **Final Exam 20% (TBD):** A final exam will be given on the scheduled day. The closed book final exam will be cumulative. The score you get in relation to the rest of the class will determine your final grade.

Grading ⌄

Enabled: Statistics Tracking

This course uses the following grading schema.

Assignment Type	Point Value Per Assignment
Class Participation	Varies
MSL Homework	Varies
Quizzes	Varies
SPSS Project	100

Midterm Exam	100
Final Exam	100
Total	

The grading scale below determines your final letter grade.

100 – 93: A	92 – 90: A-	
89 – 87: B+	86 – 83: B	82 – 80: B-
79 – 77: C+	76 – 73: C	72 – 70: C-
69 – 67: D+	66 – 63: D	62 – 60: D-
<60: F		

Policies ⌄

Enabled: Statistics Tracking

Click the link above to access university- and course-related policies that are critical components of our course.