

Syllabus – Fall 2024

Professor: Inga Maslova

Class: W 12:30 pm – 1:50 pm in JKP 102

Office Hours: [Wednesday 9:00 am - 11:00 am on Zoom](#), other times available by appointment ([Click here to set up a one-on-one meeting](#) to schedule a one-on-one meeting on Zoom)

E-mail: GSBA545@gmail.com *All communications should be sent to the email listed on the syllabus. Your emails will be answered within the 48 hours (excluding the University days off and weekends)*

COURSE DESCRIPTION

Data Driven Decision Making will teach students to become more savvy business professionals through quantitative analysis. After this course, students will be able to think quantitatively and properly interpret data-oriented statements. We will cover fundamental statistical techniques in a managerial setting, with examples and concrete exercises from business and non-business settings. Statistical topics include effective use of numerical and graphical summaries, important probability distributions, estimation and confidence intervals, hypothesis testing, categorical data analysis, and multiple linear regression analysis. The important ‘big picture’ goal of this course is to think about the process of decision making under uncertainty, a necessary skill in all business professions.

Over the last two decades, we have witnessed an explosion in the availability of data. Firms routinely collect point of sales transactions, monitor operating performance throughout their supply-chain, mine website traffic, and track customer engagement. Business analytics and data are transforming modern firms, and, in some cases, disrupting entire industries. Importantly, these changes are not limited to the “back-office” or operations; every aspect of the firm - organizational structure, marketing, product design, and strategic planning – is shifting towards data-driven decision-making. With this shift comes an increased need for “data-savvy” analysts; analysts who are not necessarily data-science experts, but understand what analytics can and cannot do, how to ask the right questions, and, most importantly, how to interpret data to make better decisions.

LEARNING OBJECTIVES

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

- Explain in your own words the key ideas behind fundamental techniques in data analytics
- Identify new opportunities to use these techniques across business domains to guide decision-making
- Confidently apply these techniques to practical problems
- Formulate and communicate actionable business recommendations based upon your analysis, including its limitations
- Critically assess the validity of analytics-based recommendations in the context of specific business decisions

COURSE MATERIALS

Stine & Foster, Statistics for Business: Decision Making and Analysis, 3rd edition, Pearson Publishing (S&F).

The textbook is strongly recommended, but not required. You can use any statistics textbook you have from previous classes. I will be posting course materials and slides to Brightspace prior to each session. See the CourseSchedule below for the corresponding textbook readings for each class session. The S&F text should be used as a reference and a source of problems to work to ensure that you understand the concepts and methods. The text of the problems and data sets used in class and for assignments will also be posted electronically on Brightspace.

GRADES:

Grading policies and practices for the University are described below:

Letter grade A

Work of excellent quality; represents Exceptional work; a grade of "A" will be assigned for outstanding work only.

Letter grade B

Work of good quality; represents Good work; a grade of "B" clearly meets the standards for graduate level work.

Letter grade C

Work of fair quality; represents Adequate work; a grade of "C" counts for credit for the course, minimum passing for graduate credit.

Letter grade C minus

Failing grade for graduate credit.

Grade components and weights are summarized in the table below:

ASSIGNMENTS	<u>% of Grade</u>
IN-CLASS, PRE-CLASS	10 %
LABs	15 %
HOMEWORK	15 %
MIDTERM	25 %
FINAL EXAM	35 %
TOTAL	100 %

Final grades represent how you perform in the class relative to other students. Historically, the average grade for this class is about a (B+/A-). Three items are considered when assigning final grades:

1. Your average weighted score as a percentage of the available points for all assignments (the points you receive divided by the number of points possible).
2. The overall average percentage score within the class.
3. Your ranking among all students in the class.

IN-CLASS PARTICIPATION, PRE-CLASS

Preparation for lectures is an extremely important part of the learning experience in this course as the richness of the learning experience will be largely dependent upon the degree of preparation by all students prior to class sessions. Throughout the semester there will be short pre-class assignments based on readings and videos.

Your class preparation is assessed on the completion and quality of the answers to pre-class assignments questions posted on BRIGHTSPACE. All pre-class is due before the session it is assigned to. No late pre-class work is accepted for credit. The lowest pre-class score will be dropped at the end of the semester.

Students are expected to attend all class sessions. In-class participation is a critical part of this course's learning experience.

Cold calling will take place to encourage active participation and to gain multiple perspectives and points of view, thus lending itself to the richness of the learning experience. While some students are far more comfortable than others with class participation, all students should make an effort to contribute meaningfully during every class. We will also work on individual analysis during class. You will submit your work on BRIGHTSPACE which will also count towards your in-class participation score.

Your participation is evaluated on the quality of your contribution, insights and for participation assignments that you will submit on Brightspace. All in-class work is due on BRIGHTSPACE by the end of next day (11:59 pm PST) it was assigned. No late in-class work is accepted for credit. The lowest in-class score will be dropped at the end of the semester.

LABS

Labs will generally require you to perform case analysis independently. It will be your chance to try using the techniques introduced in class. It will require use of software, so you will be submitting: your files with solution, your computation results, and your insights and conclusions on the analyzed case.

Your work is evaluated on both the correctness of your calculations and the quality of your insights. You will submit your work on the Brightspace. All in-class work is due on BRIGHTSPACE by the end of next day (11:59 pm PST) it was assigned. No late labs are accepted for credit. The lowest lab score will be dropped at the end of the semester.

HOMEWORK

Students will submit HW assignments individually. Homework assignments will provide an opportunity for you to develop and apply your data analysis skills to various business problems. In many ways, these assignments are a good example of the kinds of analytics work you may expect to do in your job out of Marshall.

Answer the questions that you are asked clearly and concisely. Some questions will ask for specific numbers and/or calculations. To receive full credits, you must include your work. In some cases, you may need to include a chart or graph. Please make sure to format it appropriately. Your scores on each assignment will depend on the quality and clarity of your submission. Finally, there may be questions that ask for you to make business recommendations based on your insights. Persuasive arguments tend to be brief. Long-winded answers often receive poorer scores. Late assignments will not be accepted.

EXAMS

There will be one Midterm exam on **October 23, 2024**. The final exam is on **December 13, 2024, 11:00 am – 1:00 pm**. The exams will be timed. Exams cannot be retaken or rescheduled.

For each of the tests, you are allowed to have a handwritten cheat sheet: 1 sheet of letter size paper for the midterm and 2 sheets for the final. You will receive a grade of zero for a missed exam unless you have a written excuse from your doctor or the University.

Hardware requirements

Students are required to come to class with a laptop that has Excel installed. Students are responsible for ensuring they have working equipment and are invited to explore what lab or loaner options, or financial aid opportunities exist. Feel free to speak with the professor if you need assistance.

From USC Libraries: <https://itservices.usc.edu/spaces/laptoploaner/>

- Mac or PC
- Rent on Hourly Basis for free (4-hour max, can renew in person for more hours.)
- Can come any time the library is open.
- If requested from Professor, Libraries may allow advance reservation, Professor would email ITS Learning environments at spaces@usc.edu for this special request.

From Marshall IT: The faculty would submit a request on behalf of the student here: https://uscmarshall.service-now.com/sp?id=sc_cat_item&sys_id=d45a1fc4dbd0a70025ceed384b961937

- Only PC. Usually Lenovo X1 Carbon

Emergency Preparedness

In case of a declared emergency if travel to campus is not feasible, the USC Emergency Information web site (<https://emergency.usc.edu/>) will provide safety and other information, including electronic means by which instructors will conduct class using a combination of USC's Brightspace learning management system (Brightspace.usc.edu), teleconferencing (Zoom), and other technologies.

Academic Integrity

The University of Southern California is foremost a learning community committed to fostering successful scholars and researchers dedicated to the pursuit of knowledge and the transmission of ideas. Academic misconduct is in contrast to the university's mission to educate students through a broad array of first-rank academic, professional, and extracurricular programs and includes any act of dishonesty in the submission of academic work (either in draft or final form).

This course will follow the expectations for academic integrity as stated in the [USC Student Handbook](#). All students are expected to submit assignments that are original work and prepared specifically for the course/section in this academic term. You may not submit work written by others or "recycle" work prepared for other courses without obtaining written permission from the instructor(s). Students suspected of engaging in academic misconduct will be reported to the Office of Academic Integrity.

Other violations of academic misconduct include, but are not limited to, cheating, plagiarism, fabrication (e.g., falsifying data), knowingly assisting others in acts of academic dishonesty, and any act that gains or is intended to gain an unfair academic advantage.

The impact of academic dishonesty is far-reaching and is considered a serious offense against the university and could result in outcomes such as failure on the assignment, failure in the course, suspension, or even expulsion from the university.

For more information about academic integrity see the [student handbook](#) or the [Office of Academic Integrity's website](#), and university policies on [Research and Scholarship Misconduct](#).

Since creating, analytical, and critical thinking skills are part of the learning outcomes of this course, all assignments should be prepared by the student working individually or in groups. Students may not have another person or entity complete any substantive portion of the assignment. Developing strong competencies in these areas will prepare you for a competitive workplace. Therefore, using AI-generated tools is prohibited in this course, will be identified as plagiarism, and will be reported to the Office of Academic Integrity.

Course Content Distribution and Synchronous Session Recordings Policies

USC has policies that prohibit recording and distribution of any synchronous and asynchronous course content outside of the learning environment.

Recording a university class without the express permission of the instructor and announcement to the class, or unless conducted pursuant to an Office of Student Accessibility Services (OSAS) accommodation. Recording can inhibit free discussion in the future, and thus infringe on the academic freedom of other students as well as the instructor. ([Living our Unifying Values: The USC Student Handbook](#), page 13).

Distribution or use of notes, recordings, exams, or other intellectual property, based on university classes or lectures without the express permission of the instructor for purposes other than individual or group study. This includes but is not limited to providing materials for distribution by services publishing course materials. This restriction on unauthorized use also applies to all information, which had been distributed to students or in any way had been displayed for use in relationship to the class, whether obtained in class, via email, on the internet, or via any other media. ([Living our Unifying Values: The USC Student Handbook](#), page 13).

Students and Disability Accommodations

USC welcomes students with disabilities into all of the University's educational programs. The Office of Student Accessibility Services (OSAS) is responsible for the determination of appropriate accommodations for students who encounter disability-related barriers. Once a student has completed the OSAS process (registration, initial appointment,

and submitted documentation) and accommodations are determined to be reasonable and appropriate, a Letter of Accommodation (LOA) will be available to generate for each course. The LOA must be given to each course instructor by the student and followed up with a discussion. This should be done as early in the semester as possible as accommodations are not retroactive. More information can be found at osas.usc.edu. You may contact OSAS at (213) 740-0776 or via email at osasfrontdesk@usc.edu.

Support Systems

Software support and availability. USC Technology Support
[Zoom information for students](#), [Brightspace help for students](#), [Software available to USC Campus](#).

Counseling and Mental Health - (213) 740-9355 – 24/7 on call
studenthealth.usc.edu/counseling

Free and confidential mental health treatment for students, including short-term psychotherapy, group counseling, stress fitness workshops, and crisis intervention.

National Suicide Prevention Lifeline - 1 (800) 273-8255 – 24/7 on call
suicidepreventionlifeline.org

Free and confidential emotional support to people in suicidal crisis or emotional distress 24 hours a day, 7 days a week.

Relationship and Sexual Violence Prevention Services (RSVP) - (213) 740-9355(WELL), press “0” after hours – 24/7 on call

studenthealth.usc.edu/sexual-assault

Free and confidential therapy services, workshops, and training for situations related to gender-based harm.

Office for Equity, Equal Opportunity, and Title IX (EEO-TIX) - (213) 740-5086
eotix.usc.edu

Information about how to get help or help someone affected by harassment or discrimination, rights of protected classes, reporting options, and additional resources for students, faculty, staff, visitors, and applicants.

Reporting Incidents of Bias or Harassment - (213) 740-5086 or (213) 821-8298
usc-advocate.symplicity.com/care_report

Avenue to report incidents of bias, hate crimes, and microaggressions to the Office for Equity, Equal Opportunity, and Title for appropriate investigation, supportive measures, and response.

The Office of Student Accessibility Services (OSAS) - (213) 740-0776
osas.usc.edu

OSAS ensures equal access for students with disabilities through providing academic accommodations and auxiliary aids in accordance with federal laws and university policy.

USC Campus Support and Intervention - (213) 821-4710

campussupport.usc.edu

Assists students and families in resolving complex personal, financial, and academic issues adversely affecting their success as a student.

Diversity, Equity and Inclusion - (213) 740-2101
diversity.usc.edu

Information on events, programs and training, the Provost’s Diversity and Inclusion Council, Diversity Liaisons for each academic school, chronology, participation, and various resources for students.

USC Emergency - UPC: (213) 740-4321, *HSC:* (323) 442-1000 – 24/7 on call
dps.usc.edu, emergency.usc.edu

Emergency assistance and avenue to report a crime. Latest updates regarding safety, including ways in which instruction will be continued if an officially declared emergency makes travel to campus infeasible.

USC Department of Public Safety - UPC: (213) 740-6000, HSC: (323) 442-120 – 24/7 on call

dps.usc.edu

Non-emergency assistance or information.

Office of the Ombuds - (213) 821-9556 (UPC) / (323-442-0382 (HSC)

ombuds.usc.edu

A safe and confidential place to share your USC-related issues with a University Ombuds who will work with you to explore options or paths to manage your concern.

Occupational Therapy Faculty Practice - (323) 442-3340 or otfp@med.usc.edu

chan.usc.edu/otfp

Confidential Lifestyle Redesign services for USC students to support health promoting habits and routines that enhance quality of life and academic performance.