

Syllabus for Stat-S 301

Instructor: Robert Granger (rgranger@iu.edu)

Teaching Assistants: Kelly Xu (kelxu@iu.edu), Emma Murphy (ecm5@iu.edu), Ava Chamkhaleh (achamkha@iu.edu)

Office Hours: see [Office Hours and Other Help with the Course](#).

Communication Policy: Please use email for communication. While I will respond to Canvas Message, I tend to be slower. I will get back to you within 24-48 hours (excluding weekends and holidays when it might take longer to respond). If you do not hear from me after 24 hours or if it's urgent, don't hesitate to send me a follow up email. All communications must be polite. You may be frustrated with the material or even with the course design. However, when expressing your frustration crosses the line to harassment of you instructor, TAs, or classmates, it becomes personal misconduct at IU and will be reported as such. I will try to provide a warning if I believe you are crossing the line.

Textbook: Sanjiv Jaggia and Alison Kelly. *Essentials of Business Statistics*. Available online through McGraw-Hill Connect (paid for through course fees).

Required Materials: Laptop computer and strong internet connection should be brought to every class.

Required Software: Microsoft Excel with its Analysis ToolPak loaded. See: [Install Excel and Excel's Analysis ToolPak](#).

Important Dates:

- Automatic Withdrawal Deadline: Sunday, October 26, 2025
- Exam 1: Thursday, October 2, 2025
- Exam 2: Thursday, November 13, 2025
- Final Exam: Friday, December 19, 12:40-2:40 p.m.

Course Objectives: This is an introductory course in statistical methods for business majors. The material you learn in this course will aid you in making decisions in business based on data and supports the Kelley School's I-CORE program.

CO1: Organize and summarize data by choosing appropriate descriptive statistics, tables, and graphs.

CO2: Calculate probabilities using random variables, probability distributions, and sampling distributions.

CO3: Make business decisions choosing appropriate hypothesis tests and forming appropriate interval estimates for problems.

CO4: Form and interpret simple linear regression models including the use of log transformations where appropriate.

CO5: Use Excel to summarize and analyze data for CO1, CO2, CO3, and CO4.

Note on Course Content: The focus of this course is learning statistical methods. Within that focus, I have selected class materials that present a variety of topics involving business, politics, natural sciences, and many more. It is possible that connections between our course and current and/or historical events outside the classroom will come up in lectures, class discussions, an assignments. The ability to draw and analyze connections among ideas and events is a core skill in a liberal arts education and will stand you in good stead in your life beyond IU.

Course Components and Grading

Quick-Check Quizzes: 10%

The course is designed with the use of Canvas [Modules](#). Each module, you should read, watch videos, and take quick-check quizzes which are due before class. You have unlimited attempts at the quick-check quizzes. **Ten quick-check quizzes will be dropped** when calculating your quick-check quiz grade since these are meant to be low-stakes assessments to solidify your understanding of the content. You can ask for assistance understanding quick-check quizzes; however, it is academic misconduct to hire someone to go through the class pages and submit the quick check quizzes on your behalf.

In-Class Activities: 15%

During class, you will work in small groups on an activity designed to help you synthesize the material. The activities must be handwritten and uploaded to Gradescope. **Four in-class activities will be dropped** when calculating your in-class activity grade in order to cover illnesses and most reasonable necessary absences. Work done in groups in class is group work. It should be done in class in your group. It is academic misconduct to submit a group work assignment for someone else not in class or complete the work outside of the classroom.

Homework: 20%

Your homework score is comprised of the Syllabus Quiz and 24 homework assignments at the end of each module. The first 22 homework assignments are on [McGraw-Hill](#) and the last two are [Canvas Quizzes](#). The homework system is set up on McGraw-Hill to allow 3 "homework attempts" and 3 "problem attempts" which effectively means you will have 9 attempts per problem. When you start the homework, you are typically allowed 3 attempts per problem. After submitting your homework, if there are problems that you did not get correct, you can start a "new" homework attempt. The system is setup to save and keep your highest score out of all attempts, so you do not have to redo the entirety of the homework but just the problems you did not get a perfect score.

Two homework assignments will be dropped when calculating your homework grade. You can ask for assistance understanding homework problems; however, it is academic misconduct to hire someone to complete your homework for you.

Practice Exams: 5%

Practice exams will be similar to the actual exam so that you can practice with the format and topics of the actual exam. To encourage you to take the practice exams seriously, these are graded for correctness and worth 5% of your grade. The practice exam does not change for each attempt and you have unlimited attempts.

Exams: 50%

There will be three in-person exams, two during the term (15% each) and a final exam (20%). You are expected to take all exams in your assigned classroom at their scheduled date (see important dates above) during class unless you have an accommodation. If you have an accommodation, your exam may be at a different time but it will be proctored.

Taking the exam outside a proctored setting is academic misconduct. Exams must be your own, individual work. Obtaining assistance from a third party for help completing an exam is forbidden. Third party help includes cheat sheets, online resources of any type including Google searches and AI assistance such as ChatGPT, or anything not explicitly allowed.

The exams are not all multiple choice. Some problems require actual, correct, numerical responses. The exams in this course will not be curved. If a curve for the course is needed, it will be applied at the end of the semester to the course grade.

Grading Scale:

A+ 98% or above
A from < 98% to 92%
A- from < 92% to 90%
B+ from < 90% to 88%
B from < 88% to 82%
B- from < 82% to 80%
C+ from < 80% to 78%
C from < 78% to 72%
C- from < 72% to 70%
D+ from < 70% to 68%
D from < 68% to 62%
D- from < 62% to 60%
F below 60%

It is important to note that Canvas does not determine your grade. Canvas has preset ways of estimating your grade when you have not completed the class. Those ways may be misleading. This syllabus is the determination as to how your final grade in this course will be calculated.

Additional note about problem answers: Many answers in this course are determined numerically, not algebraically. Excel uses algorithms to calculate many important quantities for this class. I have programmed algorithms in Canvas for computing those quantities. The algorithms I can program into Canvas are not as good as the algorithms in Excel or professional statistical computing packages. When you "see" an answer in Canvas, it may not agree with your Excel output.

That is all right. I have programmed in "margin of errors" so that the Canvas answer plus or minus the margin of error should cover your answer if you round as instructed. Recall that, to two decimal places 9.344 rounds to 9.34, 9.344982 rounds to 9.34, 9.345 rounds to 9.35, and 9.34506 rounds to 9.35. Most of the time, you can enter more decimal places than asked for and have the problem graded correctly.

Accommodations

If you are in need of an accommodation, it is your duty to inform your instructor. We would appreciate it very much if you ***inform us during the first two weeks of the term***. If a disability or illness arises during the term, you should inform your instructor at your earliest possible convenience.

Course Accessibility: Indiana University is dedicated to ensuring that students with disabilities (e.g., chronic health, neurodevelopmental, neurological, sensory, psychological, and emotional, including mental health, etc.) have the support services and reasonable accessibility measures (accommodations) needed to provide equal access to academic programs. You must establish your eligibility for support services through [Accessible Educational Services \(AES\)Links to an external site.](#). Note that services are confidential, may take time to put into place, and are not retroactive; citations and alternate media for print materials may take three or more weeks to produce. Contact Accessible Educational Services as soon as possible to [register for servicesLinks to an external site.](#). The office is located on the basement floor of Eigenmann Hall in Room 001 and is open Monday through Friday, 8 a.m. to 5 p.m.

AES Exams: AES (Accessible Educational Services) exams for standard accommodations (time and a half and a reduced distractions environment) for the two in-class exams will take place on Fridays immediately following the in-class exams. The exact time will be announced as soon as we have a room but we will try for **8-10 am**. If you have a course conflict or if you have a non-standard accommodation such as double time or a private exam setting, then you will take your exams with the **Accessible Educational Services** office in Eigenmann Hall. To ensure that we can accommodate you, we need your accommodation request as soon as possible.

Religious Observation:

Instructors must reasonably accommodate students who want to observe their religious holidays at times when academic requirements conflict with those observances. If you will miss class for a religious observance, you must fill out the [Request for Accommodation for Religious Observances formLinks to an external site.](#) at least two weeks before your anticipated absence.

Pregnancy: IU is dedicated to supporting students who are pregnant or have experienced other conditions related to pregnancy (termination of pregnancy, miscarriage, lactation, or related medical conditions). To register for accommodations due to pregnancy or a related medical condition, please contact [Accessible Educational ServicesLinks to an external site.](#)

Major Absences: If you miss an exam or a substantial portion of classes, you must contact your instructor as soon as possible. Your absence needs to be documented. In some cases, such as

hospitalization or a death in the family, the [Dean of StudentsLinks to an external site.](#) will help verify the documentation. Accommodations may involve nothing (so you get a zero on the exam if you miss the exam), re-weighting the assignments that were not missed, allowing a make-up assignment, or another accommodation.

Incomplete Policy: A student may receive an "I" (Incomplete) grade in exceptional cases where valid reasons hinder the completion of the course. After successful completion of the missing assignments, the letter grade will be updated to reflect the grade earned in the course. Per [IU policyLinks to an external site.](#), students have one calendar year from the date an Incomplete is recorded to resolve it, unless the dean of their college or school grants an extension under exceptional circumstances. The registrar will automatically convert the "I" to an "F" after the designated time period unless an extension has been approved or the student has earned a degree during that time. The student is responsible for reaching out to their instructor to complete the course. If the instructor is unavailable, the student should attempt to contact the Director of Business Statistics or the Statistics Department Chair.

Disclaimer: If there is a significant campus disruption including but not limited to another pandemic or a worker strike, some aspects of the way this course is managed and graded may change. We will do our best to give you as much advanced notice as possible and to be flexible with you in return for your flexibility with us. We are not currently expecting any disruption to this course.

Academic Integrity:

You should take some time to review the [Code of Student Rights, Responsibilities, and Conduct \(Code\)Links to an external site.](#) because you are expected to adhere to its standards while you are a student at IU. Holding students to the standards outlined in the *Code* ensures the value of the degree that you are earning from IU and is important training for maintaining ethical standards in the work that you will do in the future.

Academic misconduct is “any activity that tends to undermine the academic integrity of the institution” (*Code*, II, B,1). Academic integrity violations include cheating, fabrication, plagiarism, interference, violation of course rules, facilitating academic dishonesty, and research misconduct. When you submit an assignment with your name on it, you are signifying that the work contained therein is yours, unless otherwise cited or referenced. Any ideas or materials taken from another source must be fully acknowledged. Do not share your completed work with other students. If plagiarism or cheating occurs, all students involved will be considered responsible even if you were unaware that academic misconduct would occur. Ignorance of what constitutes academic misconduct is not a valid excuse. All suspected violations of the *Code* will be reported to the Dean of Students (Office of Student Conduct). Sanctions for academic misconduct in this course may include a failing grade on the assignment, a reduction in your final course grade, or a failing grade in the course, among other possibilities. If you are unsure about the expectations for completing an assignment or taking a test or exam in this course, speak with me before submitting your assignment.

Students who commit academic misconduct in any IU class will not be able to utilize the grade replacement policy on those enrollments. Grades in courses in which students have committed academic misconduct will always be factored into their GPAs.

Note Selling: Various commercial services have approached students regarding selling class notes/study guides to their classmates. Selling the instructor's notes/study guides or uploading course assignments to these sites (even after the course has ended) in exchange for access to materials for other courses is not permitted. Violations of this policy will be reported to the Dean of Students (Office of Student Conduct) as academic misconduct. Sanctions for academic misconduct for this action may include a failing grade on the assignment for which the notes/study guides or assignments have been being uploaded, a reduction in your final course grade, or a failing grade in the course, among other possibilities. Additionally, you should know that selling a faculty member's notes/study guides individually or on behalf of one of these services using IU email or via Canvas, may also constitute a violation of IU information technology and IU intellectual property policies; additional consequences may result.

Online Course Materials: The instructor teaching this course holds the exclusive right to distribute, modify, post, and reproduce course materials, including all written materials, study guides, lectures, assignments, exercises, and exams. Some of the course content may be downloadable, but you should not distribute, post, or alter the instructor's intellectual property. While you are permitted to take notes on the online materials and lectures posted for this course for your personal use, you are not permitted to re-post in another forum, distribute, or reproduce content from this course without the express written permission of the instructor.

GroupMe and Other External Messaging Platforms: Please note that you may receive emails from other students about joining GroupMe, Discord, or similar external group messaging platforms for individual classes via Canvas. Even though invitations to join the group may be issued through Canvas, they do not imply the endorsement of the course instructor. While platforms like GroupMe, Discord, etc. can be an effective way of contacting classmates and clarifying information related to the course, they can also be source of unauthorized information sharing or collaboration among students. Collaborative effort on assignments, quizzes, and exams, including sharing or discussing answers when the instructor has not expressly authorized collaboration, is considered cheating. If academic dishonesty occurs via GroupMe or a similar messaging platform, everyone involved in the thread may be found responsible for academic misconduct since membership in the group suggests that that they have been able to view the information shared.

Other University Information

FERPA

The [Family Educational Rights and Privacy Act \(FERPA\)](#) [Links to an external site.](#) is a federal law that protects the privacy of your education records. You may authorize a third party to access your education record by adding a release at <https://ferpareleases.indiana.edu> [Links to an external site.](#). Adding a release for a specific individual will generate a PIN that is sent to the student's IU email and will direct the student to share the PIN with the authorized third party.

Health and Wellbeing

- The [Student Care and Resource Center](#)[Links to an external site.](#) supports students experiencing challenges that impact their ability to be safe, healthy, and successful. You can walk in, call, email, submit a [Care Referral](#)[Links to an external site.](#) or make an appointment through the Student Appointment Scheduler to connect with the Care Team.
- Mental Health Support: If you or someone you know needs assistance, you are encouraged to contact Counseling and Psychological Services (CAPS) at 812-855-5711 or by [visiting their webpage](#)[Links to an external site.](#). They will help you navigate any difficult circumstances you may be facing by connecting you with the appropriate resources or services.

Bias-Based Incident Reporting:

As your instructor, one of my responsibilities is to create a positive learning environment for all students. Bias incidents (events or comments that target an individual or group based on age, color, religion, disability, race, ethnicity, national origin, sex, gender, gender identity, sexual orientation, marital status or veteran status) are not appropriate in our classroom or on campus. What should you do if you witness or experience a bias incident? See it? Hear it? Report it by submitting a report online ([biasincident.indiana.edu](#) ([Links to an external site.](#))) or calling the Dean of Students Office (812-855-8187).

Sexual Misconduct and Title IX:

IU policy prohibits sexual misconduct in any form, including sexual harassment, sexual assault, stalking, sexual exploitation, and dating and domestic violence. If you have experienced sexual misconduct, or know someone who has, the University can help. If you are seeking help and would like to speak to someone confidentially, you can make an appointment with the IU Sexual Assault Crisis Services at (812) 855-8900 or contact a Confidential Victim Advocate at (812) 856-2469 or cva@iu.edu.

It is also important that you know that University policy requires that I share certain information brought to my attention about potential sexual misconduct with the campus Deputy Sexual Misconduct & Title IX Coordinator or the University Sexual Misconduct & Title IX Coordinator. In that event, those individuals will work to ensure that appropriate measures are taken, and resources are made available. Protecting student privacy is of the utmost concern, and information will only be shared with those that need to know to ensure the University can respond and assist. I encourage you to visit <http://stopsexualviolence.iu.edu/index.html>[Links to an external site.](#) to learn more.

Student Resources:

[Library Research Assistance](#)[Links to an external site.](#): IU Libraries offers one-on-one consultations with students who need assistance with library research.

[Student Advocates](#)[Links to an external site.](#): Retired IU faculty and staff members assist students with resolving academic, financial, and conduct-related issues.

Technology-related resources provided by the university include:

- Free on-campus wireless internet (wifi) access through the “eduroam” network
 - Free software for download and for cloud-based use (access the Software Downloads app in [One.IU](#)[Links to an external site.](#))
 - Free 24/7 IU tech support (e.g., email, Canvas, wifi, printing, device setup, etc.)
 - Chat: <https://ithelplive.iu.edu/Links to an external site.>
 - Phone: 812-855-6789
 - Email: ithelp@iu.edu
 - Web form: [Submit an IT support request](#)[Links to an external site.](#)
 - Online: [Knowledge Base](#)[Links to an external site.](#)

- Free in-person tech support in the Wells Library

[Tutoring Resources](#)[Links to an external site.](#): There are many free and paid tutoring resources on campus that are available to students.

[Writing Tutorial Services](#)[Links to an external site.](#): Offers free one-on-one writing help from a trained tutor.