

Syllabus for Stat-S 301

Instructor Name: Robert Granger (rgranger), IE201 (Myles Brand Hall), office hours by appointment.

Class Time/Location: MW 11:30am - 12:45pm in the Luddy Center for Artificial Intelligence: LU 1001

Undergraduate Teaching Assistants: Vicky Dong (dongv), Matthew Christensen (chrismat), Shiv Anand Chhabria (shianand). See [Office Hours and Other Help with the Course](#).

Class Time/Location: MW 1:15pm - 2:30pm in Geological Sciences: GY 1045.

Undergraduate Teaching Assistants: Liwei Zeng (zengliw), Joseph Iannaci (jiannaci), Logan Brewer (logabrew). See [Office Hours and Other Help with the Course](#).

Class Time/Location: MW 4:45pm - 6:00pm in Geological Sciences: GY 1045.

Undergraduate Teaching Assistants: Areez Ahmed (ahmedar), Cristina Stancescu (cstances), Alexander Lipkin (allipkin). See [Office Hours and Other Help with the Course](#).

Text: Sanjiv Jaggia and Alison Kelly. *Essentials of Business Statistics*. Available online through the left navigation panel.

Homework Platforms: McGraw Hill Connect and Canvas Quizzes

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, *March 10, 2024*
- Exam 1: *Wednesday, February 14, 2024 (during class)*
- Exam 2: *Wednesday, April 3, 2024 (during class)*
- Final Exam: *Monday, April 29, 2024 (5:20pm-7:20pm GY1045)*

Communication Policy: For grading and attendance issues, you should send me a message through Canvas. I have multiple roles within the university and receiving messages through Canvas helps me stay organized. I will get back to you within 24-48 hours (excluding weekends and holidays when it might take longer to respond). For questions about the material including the by-hand activities and the homework, use the **Discussion** in each module for questions about the material in that module. That is the best way to get asynchronous help with the material. All TAs and myself as well as your fellow students may post responses there. 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.

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.

Course Design: The course is designed with the use of Canvas [Modules](#). You should use the appropriate Module to read, watch videos, and take quick-check quizzes daily before class. In class, you will work on critical thinking and practical Excel skills in small groups with your peers on an activity designed to help you synthesize the material. We will help you form groups in class. The activities must be handwritten and uploaded to Gradescope. Homework will be due on Fridays. There will be office hours via Zoom on Thursday and in-person on Friday. There are also Discussions in each module where you can ask questions over the topics in that module and search for answers there to common questions. There will be three exams, two in-class during the term and a final exam. Practice exams will be similar to the actual exam so that you can practice with the format and topics of the actual exam.

Grading: Grades are based on three exams, quick check quizzes, homework, practice exams, and by-hand activities as follows:

Practice Exams: 5%

Exam 1: 15%

Exam 2: 15%

Final Exam: 20%

Quick-Check Quizzes: 10%

Homework: 20%

By-Hand (In-Class) Activities: 15%

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. You should be able to achieve a near-perfect scores on the 50% of the grade from course activities - the quick check quizzes, the homework assignments, the by-hand activities, and the practice exams. The exams are not all multiple choice. Some problems require actual, correct, numerical responses. Consequently, exam grades tend to not follow the standard grading scale 90-80-70-60. A low A- grade in the course would be a student who achieves perfect scores on the course activities and achieves scores of 80 on the exams. A student can earn a B- by achieving perfect scores on the course activities and scores of 60 on the exams. Other combinations are possible, but it is in your best interest to keep up with the coursework, complete the quick-checks with perfect scores, complete the by-hand activities, and get the help you need to complete the homework assignments and practice exams correctly.

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. Two homework assignments will be dropped when calculating your homework grade. The first two by-hand activities will not be graded so that there is time for you to learn the Gradescope system. Four by-hand activities will be dropped when calculating your in-class activity grade in order to cover illnesses and most reasonable necessary absences. You are expected to take all exams during their scheduled time window which will be several days.

The grading scale will be:

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.

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.

Accommodations: If you need a disability or a religious holiday accommodation, it is your duty to inform your instructor 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.

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. The AES Final Exam will be given at a time overlapping with the standard exam time for this course.

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 Students](#) [Links 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.

Academic Dishonesty:

Academic misconduct will be dealt with as described in the [IU Code of Student Rights, Responsibilities, and Conduct](#). [Links to an external site.](#) In the case of confirmed academic dishonesty, a report of the incident will be made to the Office of Student Ethics. The course grade will include an asterisk, *, which indicates that the grade is due to cheating. Depending on the severity and stakes involved, sanctions may involve no other penalty

other than reporting the misconduct to the Dean of Students to receiving a zero on the assignment to receiving an F* in the course.

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.

Work done in groups in class is group work. It should be done in class in your group. Academic misconduct would come in if someone submits a group work assignment for someone else not in class or complete the work outside of the classroom.

You can ask for assistance understanding homework problems. However, it is academic misconduct to hire someone to complete your homework for you. Similarly, it is academic misconduct to hire someone to go through the class pages and submit the quick check quizzes on your behalf.

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: Each module in this course contains an anonymous discussion for asking questions pertaining to that module's content. The discussion is anonymous due to FERPA considerations because we are pooling all sections of the course into one discussion. If you identify yourself, you tacitly give approval to disclose your identity to students in all sections of this course. 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 they have been able to view the information shared.

Religious Observation:

Students with conflicts between course requirements (e.g. examinations) and religious observances must contact the instructor at least two weeks prior to the incident. We would appreciate it very much if you inform us during the first two weeks of the term. Please follow the procedures outlined by campus policy, available [here \(Links to an external site.\)](#).

Other University Information

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 \(Links to an external site.\)](https://biasincident.indiana.edu)) or calling the Dean of Students Office (812-855-8187).

Sexual Misconduct and Title IX:

As your instructor, one of my responsibilities is to create a positive learning environment for all students. Title IX and IU's Sexual Misconduct Policy prohibit sexual misconduct in any form, including sexual harassment, sexual assault, stalking, 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 Sexual Assault Crisis Services (SACS) at (812) 855-8900 (counseling services)
Confidential Victim Advocates (CVA) at (812) 856-2469 (advocacy and advice services)
IU Health Center at (812) 855-4011 (health and medical services)

It is also important that you know that Title IX and University policy require me to share any information brought to my attention about potential sexual misconduct, with the campus Deputy Title IX Coordinator or IU's 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 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 stopsexualviolence.iu.edu to learn more.