

STAT-S 301

Business Statistics

Course Web Page:	Canvas
Homework Program	Pearson MyLab Statistics or MyStatLab (Access through Canvas)
Text:	Donnelly. <i>Business Statistics</i> . 2nd Edition (eBook available in MyStatLab)
Course Packet:	Purchase from IU Bookstore or T.I.S. or download slim version from Canvas and print.
Required software:	Microsoft Excel (it is available to you for free download at https://iuware.iu.edu as a part of <i>Office 365</i> .)
Office Hours:	See: Canvas > Modules > M0:Instructor(s) and TA(s)

Course Objectives:

This is an introductory course in statistical methods for business majors. Through this course you will develop decision-making skills by basing decision upon the outcome of statistical concepts and methods while analyzing statistical problems encountered in Kelly School's I-CORE. By the end of the course, you should be able to do the following individually or as part of a team:

- CO1: Explain basic stat concepts including measures of central tendency, dispersion, and correlation.
- CO2: Organize and summarize data by using descriptive statistics, tables, and graphs.
- CO3: Understand the Central Limit Theorem (CLT) and its importance in Statistics.
- CO4: Make inferences about a population based on sample data using point and interval estimates.
- CO5: Understand the reasoning behind hypothesis testing. Apply and interpret z- and t-tests in a business context.
- CO6: Understand the reasoning behind linear regression. Apply and interpret simple and multiple linear regression analysis in a business context.
- CO7: Calculate and Interpret statistical results generated from Excel relevant to CO1, CO2, CO4, CO5 and CO6 above.

Grading:

Grades will be a weighted average of the following components: Homework and Class Related Assignments (Discussions and By-Hand Assignments), Comprehensive Questions (Class Participation), Video Lectures (Material Assessments), and Exams.

Video Lectures	5%	First Exam	16%
Discussions	5%	Final Exam	30%
By-Hand Assignments	5%		
Comprehensive Questions	5%		
Homework	35%		

The grade cut-offs are given by:

90.00–92.99	A-	93.00–96.99	A	≥ 97.00	A+
80.00–82.99	B-	83.00–86.99	B	87.00–89.99	B+
70.00–72.99	C-	73.00–76.99	C	77.00–79.99	C+
60.00–62.99	D-	63.00–66.99	D	67.00–69.99	D+
< 60.00	F				

These cut-offs may be adjusted in your favor (as a class) at the end of the semester. The instructor reserves the right to give +/- grades when considered appropriate.

Grades are not given, they are **earned** based on satisfactory performance according to these criteria. There are no other methods for earning grades. There is no “rounding”. Do the work, earn good grades.

Course Description and Policies:

• General

- The prerequisite is MATH M118 or equivalent.
- You are expected to watch all required video lectures.
- You are expected to attend your Wednesday/Thursday live Zoom meetings. You are welcome to attend any instructors live meeting, however, it is ideal that you attend your section’s Wednesday or Thursday live meeting.
- You will receive zero points for any missed activity in class (electronic questions, worksheets, case studies, etc), whether the absence is justified or not.
- Since emergencies always happen, some scores will not be considered in your grade calculations, as explained in detail below.
- Active participation is a fundamental part of the class. Your engagement in the topics we discuss will be a key component of the learning process.

• Video Lectures and Zoom meetings

- A detailed set of video lectures of the topic(s) related to each Module is provided with a mixture of text, examples, and exercises in the form of a class presentations (asynchronous).
- Required Video Lectures will include a set of questions (called Quizzes or Video Quizzes by the platform) designed to encourage you to get familiar with the material, prepare questions, and help you highlight important topics.
- You will have 3 attempts per question.
- Once your quiz is submitted, you will see your grade but correct answers won't be provided.
- You are expected to address relevant questions/doubts to instructors/TAs during office hours to find correct answer.
- Each required video lecture with embedded questions is worth 3 point regardless of the number of questions the video contains.
- Modules (and their Required Live Videos) will be available in parts (not all modules will be available at once) with at least two weeks in advance due dates for such module. For example, all assignments due within 2 weeks from the day the semester starts are going to be available from day one.
- M0 has no required videos but a Syllabus Quiz (See M0 for due date) designed to encourage you to read this syllabus and understand the course policy.
- To complement video lectures:
 - * Live (synchronous) Zoom meetings will be held (Please see M0: Instructor(s) and TA(s) for live Instructors classes and TA(s) Zoom office hours.)
 - * You should not expect live zoom meetings to be a regular class, it should seen as a mixture of recitation and office hours.
 - * Video lectures will also be complemented with Discussions (Canvas ζ Discussions), Comprehension Quizzes and Questions (CQs), "By-Hand" assignments, and Homework.

- **Discussions**

- Discussions are an important part of our online interaction.
- Required Discussions (worth 10 points each discussion) are designed for you to engage with your classmates on topics covered by the Module.
- A good discussion requires a two way communication so make sure to fulfill both requirements: Start a Reply and Reply to someone else's posts (Read Instructions at the top of each discussion since your minimum contribution and minimum number of replays may vary by assignment).
- Discussions will be open along with the module containing it and will be closed by the Friday the module's homework is due by 11:59pm.

- **By-Hand Assignments**

- Take notes at any designated time (asynchronous/synchronous) for your class as you would do it in person.
- Asynchronous classes may give you the false impression that you can do "all" work at once, at the last moment or "at any time."
- The only way you will not feel overwhelmed with this course work is to do things as scheduled (ie watch provided videos or attend live meetings at your designated "class time" with regularity!) and fulfilling due dates.
- By-Hand Assignments are designed for you to keep up with the schedule material.
- Some slides/pages of the ClassPak (Module's Reading material) are included with the specific purpose of being filled (handwritten assignment) by you.
- By-Hand Assignments will require you to upload a pdf of your handwritten notes/work taken IN THE READING MATERIAL OR ClassPak (no loose paper/notebook will be allowed)
- Read instructions of each Module's By-Hand assignment to find ClassPak (Reading Material) pages to be uploaded and instructions of submission by Friday of the week covering such Module.
- All textbook/excel formulas, step-by-step conditions and calculations, interpretations, etc. must be included. You must show your work, single answers without work wont be graded. Excel can be use as a calculator but the Excel formulas used must be written "by-hand" on the paper; i.e., =AVERAGE() = 3.2 indicates that the Excel Function "Average" was use to obtain 3.2.

- **Comprehension Questions (CQs)**

- Grading: Correct answers will receive 5 points, incorrect answers will receive 2 points, no answer receives 0 points.
- It is your responsibility to check that your scores are correctly recorded in your Canvas account. Report without delay any issues encountered.
- Only 80% of all available CQs points will be used.
For example, if 44 questions are asked by the end of the semester: $44 \times 5 = 220$ total available points but $220 \times 0.80 = 176$ points. YOU ONLY NEED 176 POINTS TO GET FULL CQs credit!

- **Weekly Homeworks (HW)**

- These assessments will be completed in MyStatLab and due on Fridays midnight.
- If you submit your homework late but before the next major exam, you will receive 50% of points earned.
- You have three attempts on each homework question to get the correct answer. If you find any question confusing, the best course of action is to practice it using the help section of MyStatLab, and then retake the assessment. If you still find the question difficult, please ask for help in instructors' office hours, TAs' help sessions, or labs, or post your questions on the Discussion board in Canvas.

- Your lowest score will be dropped.

- **Exams**

- Exams are closed book, closed notes. A formula sheet is provided for each exam.
- Exams have a mixture of conceptual and numeric questions, Excel can be use ONLY for the numeric questions indicated by the instructions of the exam.
- No make-up exams will not be given.
- Unexcused absences from exams will result in a score of 0.
- In case of a **justified** and **documented** emergency for the first exam, the final exam will weigh more to include the weight of the missed exam.
- Missing both exams (Exam 1 and Final Exam) will result in a score of 0 for both Exams.
- In case of a **justified** and **documented** emergency for the final exam, the student will receive an incomplete “I” grade only if her/his standing in class before the exam is of a passing grade, otherwise the student will receive an “F.”
- In case of **justified** and **documented** emergency for **both midterm and final exam**, the student will receive an incomplete “I” grade only if her/his standing in class without exam grades is of passing grade; otherwise, an F. In order to fulfill and change his/her “I” grade, all material/assignments after midterm must be re-submit/redo during next available semester including both midterm(s) and final exam.
- The midterm exam is on **Thursday, May 26, .**
- The final exam is on **Friday, June 17, .**

- **Required Material and Software:**

- Microsoft Excel capable of running the free Data Analysis Toolpak add-in.
- MyStatLab.
- A calculator (cannot be a graphing calculator).

- **Distractions**

- Do not show up late for class. It is not only distracting but also disrespectful towards classmates and the instructor.
- Please refrain from texting and playing on cellphones while the instructor is lecturing and keep cellphones/electronics out of sight.
- Do not leave class early unless you inform the instructor, in person, prior to the beginning of class.

- **Course Communication**

- Any questions about how to understand the material for homework or exams should be posted on the Canvas discussion board. That way, other students who no doubt have the same issue will be able to see the response. Furthermore, both the TA and the instructor will be able to see the question and answer it as quickly as possible (though see below).
- You are encouraged to attend to instructors' office hours, TAs' help sessions and Friday labs.
- Emails regarding grading issues should be sent to TAs, and cc'ed to instructors, through Canvas inbox.
- The instructor will reply to your email within 24 to 48 hours. The instructor cannot guarantee that any email sent outside of business hours (M–F, 9am–5pm) will be read until business hours resume.

Rights and Responsibilities:

Rights and responsibilities for students are listed and explained in the IU Code of Student Rights, Responsibilities, and Conduct (<http://www.iu.edu/~code/code/index.shtml>). Students have the responsibility to be informed of the policies and procedures within the community of Indiana University. Please review sections on academic misconduct, religious holidays, and code of ethics. If you have any concerns or questions, please contact the instructor.

Note: *Academic Misconduct*. As a student at IU, you are expected to adhere to the standards and policies detailed in the Code of Student Rights, Responsibilities, and Conduct (Code). 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 for either written or oral use must be fully acknowledged. All suspected violations of the Code will be reported to the Dean of Students and handled according to University policies. Sanctions for academic misconduct may include a failing grade on the assignment, reduction in your final course grade, and 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, be sure to seek clarification beforehand.

Note: *Note Selling*. Several commercial services have approached students regarding selling class notes/study guides to their classmates. Selling the instructors notes/study guides in this course is not permitted. Violations of this policy will be reported to the Dean of Students as academic misconduct (violation of course rules). Sanctions for academic misconduct may include a failing grade on the assignment for which the notes/study guides are being sold, a reduction in your final course grade, a failing grade in the course, among other possibilities. Additionally, you should know that selling a faculty members 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 and additional consequences may result.

Note: *Students with disabilities*. The Code states that It is the responsibility of students with documented physical or learning disabilities seeking accommodation to notify their course directors and the relevant campus office that deals with such cases in a timely manner concerning the need for such accommodation (part I section G in the Code: Right to Accommodation for Individuals with Disabilities). If you have any concerns or questions, please contact the instructor.

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 IUs 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 IUs 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.

Full Disclosure

This syllabus is a guide and every attempt is made to provide an accurate overview of the course. However, circumstances and events may make it necessary for the instructor to modify the syllabus during the semester and may depend, in part, on the progress, needs, and experiences of the students. Changes to the syllabus will be made with advance notice.

The professor reserves the right to change anything for the class as deemed appropriate.