

# STAT-S 301 — Business Statistics

<b>Course Web Page:</b>	Canvas
<b>Homework Program</b>	Pearson MyLab Statistics or MyStatLab (Access through Canvas)
<b>Text:</b>	Donnelly. <i>Business Statistics</i> . 2nd Edition (eBook available in MyStatLab)
<b>Course Packet:</b>	Purchase from IU Bookstore or T.I.S. or download from Canvas/Files and print.
<b>Required software:</b>	Microsoft Excel (Mac users: use bootcamp, or something equivalent, to install Windows and use Microsoft Excel, or see <a href="https://support.microsoft.com/en-us/kb/2431349">https://support.microsoft.com/en-us/kb/2431349</a> for information on acquiring Data Analysis Toolpak for Excel for Mac. Note that it is included in <i>Excel 2016 for Mac</i> , which is available to you for free download at <a href="https://iuware.iu.edu/Mac/title/3128">https://iuware.iu.edu/Mac/title/3128</a> as a part of <i>Office 365</i> .)
<b>Office Hours:</b>	You can attend any S301 instructor's office hours, available here: <a href="http://tinyurl.com/S301officeHours">http://tinyurl.com/S301officeHours</a>

## Course Objectives:

This is an introductory course in statistical methods for business majors. By the end of the course, you should be able to do the following individually or as part of a team:

- Explain basic stat concepts including measures of central tendency, dispersion, and correlation
- Organize and summarize data by using descriptive statistics, tables, and graphs
- Understand the Central Limit Theorem and its importance in Statistics
- Make inferences about a population based on sample data using point and interval estimates
- Understand the reasoning behind hypothesis testing,  $z/t$ -tests, and linear regression
- Apply and interpret  $z$ - and  $t$ -tests in a business context
- Apply and interpret simple and multiple linear regression analysis in a business context
- Develop decision-making skills by basing decision upon the outcome of statistical tests
- Use basic statistical tools and concepts to analyze statistical problems encountered in I-CORE
- Interpret statistical results generated from Excel.

## Grading:

Grades will be a weighted average of the following components: Homework, Electronic Questions(Class Participation), Quizzes/Case Studies (Chapter Assessments), and Exams.

Quiz	5%	First Exam	15%
Electronic Questions	5%	Second Exam	20%
Homework	30%	Final Exam	25%

The grade cut-offs are given by:

90.00–92.99	A-	93.00–96.99	A	$\geq 97.00$	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 attend all classes. 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.

### • Quizzes

- A syllabus quiz is designed to encourage you to read this syllabus and understand the course policy well in the first two weeks. It is due the Friday of the second week.
- The pre-class quiz is designed to encourage you to read the textbook and/or lecture slides before class. It will be given before each chapter, starting from Chapter 2.
- Each pre-class quiz will be available on Saturday before the lecture of a new chapter, and close at class time. You have one hour to complete it.

- Each quiz will consist of several multiple choice questions answered in Canvas. Each question is worth 1 point.
- You will have two attempts on each quiz.
- Your lowest quiz score will be dropped.

- **Electronic Questions (EQ)**

- Both the Data Collection Survey (due in Canvas the first Friday) and electronic questions are counted as your class participation grades.
- Follow the instructions in Canvas, to register for Top Hat. Then put the Top Hat app on your phone or tablet.
- Electronic questions will be given throughout the semester.
- Grading: Correct answers will receive 3 points, incorrect answers will receive 2 points, no answer receives 0 points.
- Weeks 1 and 2 are a test period and grades posted will only be used to check that everything works appropriately.
- It is your responsibility to check that your scores from Top Hat are correctly recorded in your Canvas account. Report without delay any issues encountered.
- Starting from week 3, there are **NO** excuses for missed electronic questions. Any missed class results in missed electronic questions, regardless of the excuse.
- Make-ups are not required, but must take place in another S301 section. **If you would like to attend another section of S301, you must provide your rightful instructor with evidence of your need.**
- Grades will be uploaded on a daily basis. Your three (3) days with the lowest EQ scores will be dropped, out of approximately 15-25 days of EQs. Save these for unavoidable conflicts.
- If you are caught “signing in” another student or entering EQ answers for anyone other than yourself, you will both receive zeros for the EQ portion of this course and be reported for to the dean’s office for academic misconduct, at a minimum.

- **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 80% 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 have an Excel portion completed on a computer, and a multiple choice portion completed on a Scan-Tron.
- Exams are closed book, closed notes. A formula sheet is provided for each 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 or second exam, the final exam will weigh more to include the weight of the missed exam.
- Missing both midterm exams (Exam 1 and Exam 2) will result in a score of 0 for the second midterm.
- 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.”
- The midterm exams are on **Friday, Feb 21, 5:00pm-8:30pm** and **Friday, Apr 3, 5:00pm-8:30pm**, in a location to be announced later in the semester. Each of the midterm exams lasts for 90 minutes. Your exam time (either 5-6:30pm or 7-8:30pm) will be assigned and announced 2 weeks before the exams.
- The final exam is on **Tuesday, May 5, 10:15am-2:30pm**, in a location to be announced later in the semester. The final exam lasts for 2 hours. Your exam time (either 10:15am-12:15pm or 12:30-2:30pm) will be assigned and announced 2 weeks before the exam.

- **Extra Credit**

- There are several extra credit opportunities throughout the semester.
- The total extra credit points will be 3%, which will raise your final grade by one letter grade
  - \* Three logistic checks (worth 1.8% <sup>1</sup>)
    - The first logistic check is to complete an anonymous Midterm Survey in Canvas in the middle of the semester.
    - The second/third logistic check (LC2 and LC3) requires you to meet any TA during their help session once before midterm 2/final exam respectively. You should bring your Course Packet (either purchased or printed) and notes to the meetings. Class notes and conceptual understanding will be checked.
    - For LC2 or LC3, please come to TAs' office hours during your assigned two-week window.
    - Credit will be awarded based on completion on or before the deadlines.
    - An additional 3 points will be added to your score on corresponding exam, which will raise your exam score by one letter grade (e.g., B+ to A-).
  - \* Case study (worth 1.2%)
    - There will be an extra credit opportunity if you choose to work on a case study throughout the semester either by yourself or with another student, and submit a report at the end of the semester. Up to 1.2% extra credit will be added to your final grade, based on your or your group's performance.

---

<sup>1</sup>  $\frac{3}{100} * 15\%$  for MT1,  $\frac{3}{100} * 20\%$  for MT2,  $\frac{3}{100} * 25\%$  for FE = 0.45% + 0.6% + 0.75% = 1.8%

- **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 come to instructors' office hours, TAs' help sessions and online office hours, 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](http://stopsexualviolence.iu.edu) to learn more.