

STAT 30301: Probability & Statistics for Business – Distance Course

Syllabus – Summer 2022 – All Times are Eastern Time (ET)

**Registering for this course constitutes your agreement to follow the policies listed in this syllabus.

**The information contained in this syllabus may be subject to change over the course of the semester. Students will be notified of any changes via Brightspace.

Lecturer: Pam Porterfield

TA: Heekyung Ahn

Email: stat303coordinator@stat.purdue.edu

CRN: 32032

Credit Hours: 3.0

Pre-requisite: MA 16010 or higher

COURSE DESCRIPTION:

An online asynchronous course delivered through Brightspace that introduces basic probability theory and statistical inference. Topics include descriptive statistics, sampling techniques, sampling distributions, confidence intervals and hypothesis tests for 1-sample and 2-sample means and proportions, and hypothesis tests for variance, goodness of fit, independence, and homogeneity. Students will utilize Microsoft Excel 2019 or 365.

LEARNING OUTCOMES:

1. Students will learn and apply basic terminology, set theory, and counting rules related to probability.
2. Students will identify selected discrete and continuous probability models/distributions (including the Normal distribution) and apply them to answer probability questions.
3. Students will be able to understand, interpret standard statistical techniques/methods, analyze data, construct and interpret confidence intervals and hypothesis tests.
4. Understand basic terms, graphs, and symbols and be able to interpret statistics in the media.
5. Students will use Microsoft Excel to organize, display, and analyze numerical and categorical data.

REQUIRED MATERIALS:

Textbook & Online Learning Platform (MindTap):

Textbook: *Modern Business Statistics with Microsoft® Excel®*

Recommended Purchase: Cengage Unlimited, 1-term (4 months); available online via [Cengage.com](https://www.cengage.com)

ISBN: 9780357700037

Author: Anderson, et. al. **Publisher:** Cengage

Edition/Year: 7th/© 2021

****NOTES:**

- [MindTap](#), an online learning platform for *Modern Business Statistics with Microsoft® Excel®*, is required for this course and is included in the purchase of Cengage Unlimited.
- 1-Term [Cengage Unlimited](#) provides for full access to the eBook and [MindTap](#) learning platform for ALL semesters in the course sequence. STAT 30301 covers chapters 1-12 in the textbook; MGMT 305 will use the same textbook and cover the subsequent chapters.

Other Required Materials:

- A computer (not a cell phone) equipped reliable internet connection, a webcam, and a microphone
- Access to Microsoft Excel 2019 or 365. Available on all campus ITaP lab Windows computers; or through Purdue's [Office 365 Portal](#)
- An activated Purdue University career account and Brightspace
- A Piazza account for content related inquiries, online help/discussions
- A scientific calculator; a graphing calculator is acceptable but not required

GRADING POLICIES:

The letter grade cutoffs for this course are: A: 90-100%; B: 80-89%; C: 70-79%; D: 60-69%; F: below 60%

Any adjustments to the cut-offs for letter grades, or the use of +/-, will be determined at the discretion of the course coordinator **AFTER final exams are graded—there is no guarantee that +/- will be used.**

Note: Emails requests for grade “bumps”, extra credit, or credit for late/missed work will not receive a response.

GRADE DISPUTES:

Your grades will be posted on the main Brightspace course. You should check them often to make sure that the posted scores are correct. You are responsible for checking your grades and bringing any discrepancies to the attention of your instructor. This must be done in a timely manner, within one week after the grade is posted; do not wait until the end of the semester.

COURSE GRADES are determined as follows:

HOMEWORK – 20%
RECITATION ACTIVITIES – 15%
LECTURE QUESTIONS – 4%
OTHER TASKS – 1%
EXAM 1 – 20%
EXAM 2 – 20%
FINAL EXAM – 20%

There are no opportunities to complete any additional assignments (i.e., there is **NO “Extra Credit”**).

This course accepts **NO late submissions** for any assignment (technical issues are not grounds for deadline extension).

HOMEWORK (20%): **NOTE: ALL TIMES ARE EASTERN TIME (ET)

- Homework is completed online through MindTap which is linked in Brightspace. You will need to purchase access online through [Cengage](#); a Cengage Unlimited subscription provides the eBook and MindTap.
 - Homework is due at 11:59pm (ET) on due date; due dates and homework topics are provided in the Course Schedule
 - Late homework is not accepted. Homework is never excused.
 - You have 2 attempts on each homework assignment, and your higher score counts toward your course grade.
 - Your lowest homework grade is dropped from your final grade. If you were sick, had an emergency, had technical difficulties, etc. and missed a HW, this is the one which will be dropped. You do not get to drop an additional low HW score just because you have a good reason for missing a prior one. It is recommended that you start the homework early so that you can make the most of your two attempts.
 - Computer difficulties are not a valid excuse for having late homework. It is your responsibility to start the homework early so that you will have time to finish it even if computer difficulties arise. If there is a problem with the MindTap system, immediately contact technical support using the link in Brightspace.
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RECITATION ACTIVITIES (15%): **NOTE: ALL TIMES ARE EASTERN TIME (ET)

- Recitation Activities (RAs) provide practice connecting your statistical understanding and the use of Excel through guided applications.
- Recitation Activities open at 6am (ET) on Wednesdays and are due on Friday at 11:59pm (ET) of the same week.
- Completed Recitation Activities **MUST BE SUBMITTED AS pdfs** to Brightspace. If you do not know how to create a pdf file, please assistance before the first Recitation Activity is due.
- Recitation Activity topics can be found in the Course Schedule.
- Late submissions are not accepted. RAs are never excused.
- Your lowest Recitation Activities score is dropped from your final grade. Only one RA score will be dropped, regardless of reason.

LECTURE QUESTIONS (4%): ****NOTE:** ALL TIMES ARE EASTERN TIME (ET)

- Lecture Questions (LQs) are a set of questions that pertain to the assigned Video Lectures and are given as a quiz in Brightspace; see the Course Schedule for details.
 - Lecture Questions open at 12am (ET) on a day of the week based on which Video Lectures they cover; see the Course Schedule for details.
 - Lecture Questions are meant to be completed in about 20 minutes but are not timed.
 - Lecture Questions are an individual task; you are allowed to use your textbook and notes to complete the questions.
 - You have 2 attempts on each set of Lecture Questions, and your higher score counts toward your course grade.
 - Late submissions are not accepted. LQs are never excused.
 - Your lowest Lecture Questions score is dropped from your final grade. Only one LQ score will be dropped, regardless of reason.
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OTHER TASKS (1%):

- ACADEMIC INTEGRITY QUIZ: **This quiz is required and is due at the end of the first day of class.** You are given unlimited time and attempts. A score of 100% is required to be able to access the Syllabus Quiz.
 - SYLLABUS QUIZ: **This quiz is required and is due at the end of the first day of class.** You are given unlimited time and attempts. A score of 100% is required to be able to access the Respondus Practice Quiz.
 - RESPONDUS PRACTICE QUIZ: **This quiz is required and is due at the end of the first day of class.** You must have a computer with good internet connection, a webcam, and a microphone to take this quiz and all STAT 30301 exams. For this check, you are given unlimited time and attempts. A score of 100% is required to be able to access the remaining STAT 30301 content.
 - COURSE EVALUATIONS: This assignment will open near the end of the semester. You will receive a score of 100% for submitting proof of completion (i.e. screen shot) in Brightspace for the end-of-semester online course evaluations for both your lecturer and your recitation instructor.
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EXAMS (60%): ****NOTE:** ALL TIMES ARE EASTERN TIME (ET)

- The exams are administered online via Brightspace and require Respondus Lockdown Browser & Monitor.
 - The exams are closed book/closed notes except for **ONE** (8 1/2" x 11", handwritten, both sides) note sheet.
 - The exams may contain multiple choice, matching, short answer, show-your-work, and problem-solving questions.
 - You are allowed to use scrap paper, a scientific calculator, and **ONE** (8 1/2" x 11", handwritten, both sides) note sheet for each exam; use of printed or photocopied material on a note sheet is **prohibited**.
 - The exams will open at 6am (ET) on exam day and closed 24 hours later. See the Course Schedule for exam days.
 - Exam 1 and Exam 2 will last exactly one hour.
 - The Final Exam is cumulative, will be administered during Finals Week, and will last exactly 2 hours.
 - **There will be NO curving of individual exam grades.**
 - Picture IDs will be checked via Respondus Monitor at each exam.
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ONLINE OFFICE HOURS and PIAZZA:

Assistance with course assignments and materials is available via WebEx online office hours during select times each week and through the course's Piazza discussion board. Links and details can be found in the "NEED HELP?" module in Brightspace.

To attend WebEx office hours, check the Office Hours Schedule in the "NEED HELP?" module in Brightspace for availability and click the provided link. A webcam and microphone are not required, but they can help with communication. Please be aware of your personal surroundings if you choose to connect to a Webex room for virtual office hours using a webcam and microphone.

MAKE-UP EXAM POLICY:

- Every effort is made to accommodate student schedules while also protecting the integrity and security of the exam. Make-up exams must be taken no more than 3 days after the regular exam.
 - Valid reasons for missing an exam must include university documentation. Work is not a valid excuse. Forgetting about an exam is not a valid excuse.
 - If you must miss an exam due to a class conflict or school trip, you need to complete a “Make-up Exam Request Form” (in the FORMS Module in Brightspace) and submit it to the course coordinator **at least a week in advance** with appropriate documentation included. An example of appropriate documentation includes a class or exam schedule from MyPurdue showing the conflict, an athletic schedule, or a letter from a university sponsor.
 - If you are missing the exam due to an **emergency**, you must **e-mail** the course coordinator with details of your situation and the information requested on the Make-up Exam Request Form (in the FORMS Module in Brightspace) **no later than 9am the day after the scheduled exam**.
 - The course coordinator will need to approve your request before your make-up exam will be scheduled.
 - Failure to meet these deadlines will result in a grade penalty for the exam.
 - The day & time of make-up exams will be determined three days before the regularly scheduled exam and be based on the Request Forms received at that time. If you submit your request after the make-up exam has been scheduled, you will have to adjust your schedule to the time that has already been chosen since only one make-up exam will be administered for each of the three exams.
 - NO exam can be taken before the regularly scheduled exam.
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COURSE PARTICIPATION EXPECTATIONS:

This course utilizes asynchronous learning which is largely self-guided. While there are no scheduled meeting times for lecture or recitation, there is live help available via WebEx each week and online help via Piazza. To experience success in this fast-paced course, it is fundamental that you follow the recommended schedule for viewing the video lectures and read the relevant sections in the textbook. The information you learn from these resources is necessary to successfully complete course assignments and perform well on exams. You may also wish to take advantage of the many helpful resources in MindTap.

When conflicts or absences can be anticipated, such as for many University-sponsored activities and religious observations, the student should inform the course coordinator of the situation as far **in advance** as possible. For unanticipated or emergency absences when advance notification to the instructor is not possible, the student should contact the course coordinator as soon as possible. When the student is unable to make direct contact with the course coordinator and in cases falling under excused absence regulations, the student or the student's representative should contact the [Office of the Dean of Students website](#) to complete appropriate forms for instructor notification. Under academic regulations, excused absences may be granted for cases of grief/bereavement, military service, jury duty, and parenting leave. For details, see the [Academic Regulations & Student Conduct section](#) of the University Catalog website.

PROBLEMS OR CONCERNS:

If you have any questions or concerns, please email your TA first and then, if needed, follow-up with the course coordinator. For all other issues contact the course coordinator. You can expect a reply within 24 hours during the work week (M – F, 8am - 5pm) and by the end of the next working day if your email is sent over a weekend or Purdue holiday.

SECTION CHANGES POLICY:

In the **first three days of class**, all section changes and adds should be completed by you through MyPurdue. *Adds and section changes will not be allowed after the first three days of class.* The only section changes and adds which could potentially be accommodated after this time are for extreme extenuating circumstances (such as the registrar dropping all your classes due to delayed financial aid disbursement). In such a case, you must contact the course coordinator at stat303coordinator@stat.purdue.edu.

ACADEMIC INTEGRITY POLICY:

[Purdue's Honor Pledge](#): "As a Boilermaker pursuing academic excellence, I pledge to be honest and true in all that I do. Accountable together - we are Purdue."

Academic integrity is one of the highest values that Purdue University holds. Individuals are encouraged to alert university officials to potential breeches of this value by either emailing integrity@purdue.edu or by calling 765-494-8778. While information may be submitted anonymously, the more information that is submitted provides the greatest opportunity for the university to investigate the concern. Click: [Academic Integrity at Purdue](#) for more information.

All materials in this course are copyrighted to the Statistics Department. It is a violation of US copyright law to provide copies of the course materials (notes, LQs, homework, exams and solutions) to any person or entity (including websites). That means it is illegal to upload STAT 30301 course materials to ANY website or share electronically. We reserve the right to prosecute any violations of our copyrights.

Violations of this academic integrity policy can result minimally in a failing grade for the assignment/exam and may result in failing grade for the course. Instances of academic misconduct may be referred to the Office of the Dean of Students for review of the incident and a decision on the student's status with the university.

On working together online via discussion boards and group chats:

As a Purdue Boilermaker, you know the acceptable ways to collaborate using online discussion boards and group chats.

- Discussing a homework problem is encouraged but sharing your work on a problem is cheating, which is an academic integrity violation.
- Posting screenshots of a completed or partially completed homework question is cheating.
- Using the work and/or answer that someone posts in a response is cheating.
- When these materials are posted, anyone in the group could be considered to be colluding with the people sharing homework images, work, and/or answers.
- Please think before using an online chat or discussion board to ask your classmates to complete a homework problem for you.
- On the other hand, if you are part of an online group and a student asks you to do a homework problem for them - please do not. Either ignore their request or provide general guidance on how to approach the problem. Providing an answer is cheating.
- If you are unsure whether a request or response is acceptable, then it probably is not.
- Please keep your integrity, the integrity of STAT 30301, and the integrity of Purdue at the forefront when working with and helping others both online and in-person.
- Please just **DO YOUR OWN WORK!**

SPECIAL NEEDS:

- Purdue University strives to make learning experiences as accessible as possible. If you anticipate or experience physical or academic barriers based on disability, you are welcome to let your instructor know but should also contact the Disability Resource Center at: drc@purdue.edu or by phone: 765-494-1247.
 - If you require extra time on exams please complete the Academic Accommodations Agreement (in the FORMS Module) and email to the course coordinator as soon as possible.
 - If you plan to use the DRC testing center, you will need to contact the DRC at least a week prior to the regular exam date in order to schedule a time for your exam.
 - **NO** exams will be given prior to the regularly scheduled exam time, including the final exam. The last day to take an exam is THREE days after the date of the regularly scheduled exam.
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MENTAL HEALTH/CAPS INFORMATION:

Purdue University is committed to advancing the mental health and well-being of its students. If you or someone you know is feeling overwhelmed, depressed, and/or in need of support, services are available.

- If you find yourself beginning to feel some stress, anxiety, and/or feeling slightly overwhelmed, try WellTrack, <https://purdue.welltrack.com/> Sign in and find information and tools at your fingertips, available to you at any time.
 - If you need support and information about options and resources, please see the Office of the Dean of Students, <http://www.purdue.edu/odos>, for drop-in hours (M-F, 8 am- 5 pm).
 - If you're struggling and need mental health services, contact Counseling and Psychological Services (CAPS) at (765)494-6995 and <http://www.purdue.edu/caps/> during and after hours, on weekends and holidays, or by going to the CAPS office of the second floor of the Purdue University Student Health Center (PUSH) during business hours.
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NONDISCRIMINATION AT PURDUE:

Purdue University is committed to maintaining a community which recognizes and values the inherent worth and dignity of every person; fosters tolerance, sensitivity, understanding, and mutual respect among its members; and encourages each individual to strive to reach his or her own potential. In pursuit of its goal of academic excellence, the University seeks to develop and nurture diversity. The University believes that diversity among its many members strengthens the institution, stimulates creativity, promotes the exchange of ideas, and enriches campus life. Purdue's nondiscrimination policy can be found at http://www.purdue.edu/purdue/ea_eou_statement.html

BASIC NEEDS SECURITY:

Any student who faces challenges securing their food or housing and believes this may affect their performance in the course is urged to contact the Dean of Students for support. There is no appointment needed and Student Support Services is available to serve students 8 a.m.-5 p.m. Monday through Friday. Considering the significant disruptions caused by the current global crisis as it related to COVID-19, students may submit requests for emergency assistance from the [Critical Needs Fund](#)

CAMPUS EMERGENCIES: In the event of a major campus emergency, course requirements, deadlines and grading percentages are subject to changes that may be necessitated by a revised semester calendar or other circumstances. You will be made aware of any change via an Announcement in Brightspace and email; You are expected to check Brightspace announcements and read your @purdue.edu email on a frequent basis. See below for information on what to do if an EMERGENCY occurs while on campus.

EMERGENCY PREPAREDNESS—A MESSAGE FROM PURDUE UNIVERSITY



For more information click here: [Emergency Preparedness Website](#)

EMERGENCY NOTIFICATION PROCEDURES are based on a simple concept – if you hear a fire alarm inside, proceed outside. If you hear a siren outside, proceed inside.

- **Indoor Fire Alarms** mean to stop class or research and immediately **evacuate** the building. o Proceed to your Emergency Assembly Area away from building doors. **Remain outside** until police, fire, or other emergency response personnel provide additional guidance or tell you it is safe to leave.
- **All Hazards Outdoor Emergency Warning Sirens** mean to immediately seek shelter (**Shelter in Place**) in a safe location within the closest building. o “Shelter in place” means seeking immediate shelter inside a building or University residence. This course of action may need to be taken during a tornado, an active threat including a shooting or a release of hazardous materials in the outside air. Once safely inside, find out more details about the emergency*. **Remain in place** until police, fire, or other emergency response personnel provide additional guidance or tell you it is safe to leave.

**In both cases, you should seek additional clarifying information by all means possible...Purdue Emergency Status page, text message, Twitter, Desktop Alert, Albertus Beacon, digital signs, email alert, TV, radio, etc.. Click here to learn more about the multi-communication layers for Purdue’s [Emergency Warning Notification System](#)*

EMERGENCY RESPONSE PROCEDURES:

- Click here to review the [Emergency Procedures Guidelines](#)
- Review the **Building Emergency Plan** (see the Emergency Preparedness website or the building deputy) for:
 - o evacuation routes, exit points, and emergency assembly area
 - o when and how to evacuate the building.
 - o shelter in place procedures and locations
 - o additional building specific procedures and requirements.
- View **EMERGENCY PREPAREDNESS AWARENESS VIDEOS** such as "[Run. Hide. Fight.®](#)", a 6-minute active shooter awareness video that illustrates what to look for and how to prepare and react to this type of incident.

FIRE EMERGENCY: If we hear a fire alarm during class we will immediately suspend class, evacuate the building, and proceed outdoors. Do not use the elevator.

TORNADO WARNING/SEVERE WEATHER EVENT: If we are notified during class of a Shelter in Place requirement for a tornado warning or severe weather event, we will suspend class and shelter in lowest level of the building.

SHELTER IN PLACE: If we are notified during class of a Shelter in Place requirement for a hazardous materials release, or a civil disturbance, including a shooting or other use of weapons, we will suspend class and shelter in the classroom, shutting the door and turning off the lights.

MAJOR CAMPUS EMERGENCY: In the event of a major campus emergency, course requirements, deadlines, and grading are subject to change that may be necessitated by a revised calendar or other circumstances beyond the instructor’s control. Relevant changes to this course will be posted and the course coordinator will send an email.”

TO REPORT AN EMERGENCY: Call 911. To obtain updates regarding an ongoing emergency, sign up for Purdue Alert text messages, view www.purdue.edu/ea .

There are nearly **300 Emergency Telephones** outdoors across campus and in parking garages that connect directly to the PUPD. If you feel threatened or need help, push the button and you will be connected immediately.