



UT PERMIAN BASIN

PSYC 3301 701

Introductory Statistics

Spring 2025 Session 001

Delivery Method: Online

Schedule a Meeting

Contact your instructor to schedule a meeting.

Instructor Information

Name: James N. Olson, Ph.D., Instructor of Record

Email: olson_j@utpb.edu

Phone: 1 (432) 552-2345 [but email is preferred due to hearing deficit; he checks email regularly]

Office Location: Mesa Building 3200

Office Hours: By appointment only during CV19 era; email olson_j@utpb.edu

Name: Shawn Mathiesen, M.A., Coach/Tutor

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Office Hours: use email since this is a 100% online course

Name: Natalie Klas, M.S., Coach/Tutor

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Office Location: Off campus

Office Hours: use email since this is a 100% online course

Course Information

Class Location: Online

Course Description

Measures of central tendency variability correlation and hypotheses testing with emphasis on the application of statistical methods to research in the behavioral sciences and education.

Statistics is a set of tools that helps researchers to quickly and economically answer a potentially infinite number of questions about the nature of the world. Nonetheless, the word "statistics" typically elicits thoughts of an anxiety and elicits thoughts of a useless course filled with painful mathematical jargon that must be endured to fulfill one's degree requirements.

However, after an appropriate study of statistics most students recognize the usefulness of a knowledge of statistics, it's all just basic arithmetic, logic, and a little probability. This is not to say that the study of statistics is easy or that mastery comes quickly, but rather that a knowledge of statistics is well worth the effort required to obtain it. There are at least three practical ways in which a knowledge of statistics pays off:

First, since you are required to read many books and professional journal articles containing statistical terminology and analyses (such as "standard deviation," "significant," "t test," and so on), a knowledge of statistics will enable you to better understand these articles and thereby maximally benefit from reading them.

Second, a knowledge of statistics will enable you to critically assess the manner in which facts and figures are presented and to determine whether or not the conclusions are justified.

Third, since you are usually required to participate in one or more laboratory / field research projects, a knowledge of statistics is necessary to collect the desired information efficiently and to analyze the results accurately.

Course Learning Outcomes (CLO)

1. To represent, describe, and evaluate basic statistical information verbally, numerically, and graphically.
2. To demonstrate identify and calculate several measures of central tendency and variability.
3. To demonstrate the ability to use the hypothesis testing procedure.

4. To understand assumptions of statistical tests.
5. To demonstrate an understanding of probability and its role in hypothesis testing.
6. To demonstrate the ability to compute tests for differences between sample means and statistical significance.
7. To demonstrate the ability to compute Pearson's correlation coefficient and statistical significance.
8. To interpret the results of statistical calculations, drawing conclusions about statistical significance, what it means for research hypotheses, and limitations.
9. To demonstrate the use appropriate technology to solve research problems and to evaluate the reasonableness of the results.

UTPB Bookstore

[Bookstore link](#)

This link will take you directly to the official UTPB bookstore page for this course. Please note, you are welcome to make purchases from any supplier of your choice.

Student Learning Outcomes

- To demonstrate mathematical reasoning skills and logic that support evidence-based arguments.
- To recognize "answerable questions" for which the investigative process in statistics would be useful.
- To describe the process known as "argument by contradiction" or "proof by contraction in designing and interpreting data collection..
- To describe the limitations of statistical procedures.
- To demonstrate caution as consumers of statistically-based results reported in popular media, recognizing whether reported results reasonably follow from the study and analysis

conducted.

- To verbally interpret statistical tools such as formulas, graphs, tables, and schematics, and draw rational inferences from them.”

Additional Materials

Required text:

You'll be pleased to know that although there is one required textbook for this course. Jim co-authored it, and he owns the copyright. He's giving it to you in pdf format, one module or section at a time, as you travel through the semester. So you don't have to purchase a book; you won't find it in the bookstore. Jim wrote the book in 1981 with his friend and colleague, Dr. Ken Pfeiffer, then an instructor at UCLA. Jim has modified and updated the book for this course. It's free to you! Hurray for saving money! At least \$125 if purchased new in today's market. The original textbook is cited below:

Pfeiffer, K., & Olson, J. N. (1981). *Basic statistics for the behavioral sciences*. Holt, Rinehart and Winston.

Important Academic Dates

UTPB [Academic Calendar](#)

University Policies

Accommodation for Students with Disabilities

Students with Disabilities: The University of Texas Permian Basin in compliance with the Americans with Disabilities Act and Section 504 of the Rehabilitation Act provides “reasonable accommodations” to students with disabilities. Only those students, who an Instructor has received an official Letter of Accommodation (LOA) sent by the Office of ADA for Students, will be provided ADA academic accommodations.

ADA Officer for Students: Amber Lucero, Director of Student Emergency and Accessibility Services

Address: 4901 E. University, Odessa, TX 79762

Student Activity Center (SAC) Room #200D

Voice Telephone: 432-552-4602

Email: ada@utpb.edu

For the accessibility and privacy statements of external tools used within courses, go to [Accessibility and Privacy Statements](#).

Sexual Harassment/Sexual Misconduct Policy

The University of Texas Permian Basin (the University) is committed to maintaining a learning and working environment that is free from discrimination based on sex in accordance with Title IX of the Higher Education Amendments of 1972 (Title IX), which prohibits discrimination on the basis of sex in educational programs or activities; Title VII of the Civil Rights Act of 1964 (Title VII), which prohibits sex discrimination in employment; and the Campus Sexual Violence Elimination Act (SaVE Act), Violence Against Women Act (VAWA), and Clery Act. Sexual Misconduct, Retaliation, and other conduct prohibited under this Policy will not be tolerated and will be subject to disciplinary action.

The University will promptly discipline any individuals or organizations within its control who violate this Policy. The University encourages you to promptly report incidents that could constitute violations of this Policy to the Title IX Coordinator. The complete Sexual Harassment/Sexual Misconduct Policy can be found [here](#).

You may report incidents of sexual misconduct to any University employee. They are obligated to report any incident to the Title IX Coordinator or Deputy Coordinator.

You may also contact:

- The UTPB Police Department at 432-552-2786
- The Title IX Coordinator at 432-552-2697 or TitleIXCoordinator@UTPB.edu.
- The Dean of Students at 432-552-2600
- Reports can also be made via the University Complaint Portal: [UTPB Complaint Management](#)

A **confidential reporting option is available**. Please contact UTPB's Counseling Center at 432-552-3365 or 432-552-2367 or stop by MB 1150.

Scholastic Dishonesty

"Scholastic Dishonesty" is any form of cheating or plagiarism that violates the Student Code of Conduct. Scholastic dishonesty or academic dishonesty includes, but is not limited to, cheating, plagiarism, collusion, falsifying academic records, and any act designed to give unfair advantage to the student (such as, but not limited to, submission of essentially the same written assignment for two [2] courses without the prior permission of the instructor, and providing false or misleading information in an effort to receive a postponement or an extension on a test, quiz,

or other assignment), or the attempt to commit such an act. The Student Code of Conduct provides students fair notice of conduct considered unacceptable at The University of Texas Permian Basin and which may be the basis for disciplinary action. This policy provides the procedures to be following when student disciplinary action may need to be implemented and outlines the appeals process. The Student Code of Conduct is available online at: <https://www.utpb.edu/life-at-utpb/student-services/dean-of-students/student-code-of-conduct>

Student Success at UTPB

UT Permian Basin offers numerous services to help you reach your academic goals. Available both in the Success Center on the 2nd Floor of the Mesa Building (<https://www.utpb.edu/academics/advising-and-support/student-success-center/index>), and online, UTPB Student Success offers the following services to all students:

- O.W .L. (Online Writing Lab) - Submit essays that need to be revised by one of our tutors to owl@utpb.edu.
- Tutoring – For both online and in person tutoring, please use EAB to create an appointment. (Utpb.campus.eab.com) Sign in using UTPB credentials.
- SI/PLTL Sessions - If available for your class, will be communicated to you by the mentor assigned to your class section and students can communicate to their SI or PL through Canvas.
- Peer Mentoring - Incoming freshmen can be paired with a peer mentor who will help you navigate your first year on campus.
- SSC Computer Lab - Come take advantage of the state-of-the-art computers available at the Student Success Center.

Please email success@utpb.edu for more information.

Student Support Services

For more information on academic, technical, and support services for UTPB students, please see the [Online Student Services](#).

Course Modalities

Both the Texas Higher Education Coordinating Board (THECB) and the Southern Association of Schools and Colleges Commission on Colleges (SACSCOC) provide standard definitions for basic course types/modalities that have informed the following adopted course definitions.

Online Courses are those in which more than 85 percent of the planned instruction occurs online/virtually (asynchronously) when students and faculty are not in the same place. A fully online

course is one in which mandatory in-person meetings occur no more than 15% of the planned instructional time.

Remote Courses are ones in which students, while not required to physically come to campus to attend in-person classes, are required to “attend” virtually/remotely (synchronously) during scheduled days and times, with students expected to log in and participate in the lecture via video conferences.

Hybrid Courses are courses in which the majority (more than 50% but less than 85%) of the planned instruction occurs when students and instructor(s) are not in the same place. This form of instruction offers a mix of on-campus/in-person and remote/online/electronic learning.

HyFlex Courses are those which, like hybrid courses, offer a mix of on-campus/in-person and remote/online/electronic learning. These courses, however, do not require student authentication since at least 50% of the planned instruction occurs when students and instructor(s) are in the same place.

Face-to-Face/In-Person Courses are those in which more than 85 percent of the planned instruction occurs when students are in the same place with an instructor(s).

End-of-Course Evaluation & Instructor Evaluation

Every student is encouraged to complete an end of course evaluation survey provided by UTPB. During the last two weeks of class, there will be an announcement in Canvas, an email, and a button in your course navigation that will take you to any available surveys.

The survey is anonymous and your responses are confidential. Your feedback is critical to us and to your instructor as we strive to improve our offerings, and our support of you, the students.

Disclaimer & Rights

Information contained in this syllabus was to the best knowledge of the instructor considered correct and complete when distributed for use in the beginning of the semester. However, the instructor reserves the right, acting within the policies and procedures of UTPB to make changes in the course content or instructional techniques without notice or obligation. The students will be informed about the changes, if any.

Distance Education Policy

Preparation for Emergencies

Computer Crash

Not having a working computer or a crashed computer during the semester will NOT be considered an acceptable reason for not completing course activities at a scheduled time. NOTE: Identify a second computer before the semester begins, that you can use when or if your personal computer crashes. Limited Loaner Laptops are available through the J. Conrad Dunagan Library.

Complete Loss of Contact

If you lose contact with course connectivity completely (i.e. you cannot contact me via Canvas or email), you need to call the instructor, and leave a message regarding connectivity loss and your contact information.

Lost/Corrupt/Missing Files

You must keep/save a copy of every project/assignment on an external drive, UTPB Outlook 365 OneDrive, or personal computer. In the event of any kind of failure (e.g. virus infection, student's own computer crashes, loss of files in cyberspace, etc.) or any contradictions or problems, you may be required to resubmit the files.

Distance Education Courses and Student Identity Authentication Requirements and Policy

SACSCOC defines a distance education course as one in which more than 50 percent of the planned instruction occurs when students and instructor(s) are not in the same physical place. Distance education courses, therefore, include online, remote, and hybrid courses as defined above. Per SACSCOC and University policy, all distance education courses are required to follow our Distance Education Student Authentication Policy procedures (please see below), and these requirements and policies must be stated in the course syllabus. Further, any projected additional student charges associated with verification of student identity must be indicated on the courses schedule and course syllabus.

The Distance Education Student Authentication Policy does not apply to Hyflex Courses--those in which at least 50% of the planned instruction occurs when students and instructor(s) are in the same place--and Face-to-Face/In-Person Courses--those in which more than 85 percent of the planned instruction occurs when students and instructor(s) are in the same place. Student authentication and identity verification in these courses may be accomplished by in-person attendance monitoring as well as through in-class instructor proctored examinations and other assessments. These same "in-class" authentication procedures also may be employed in hybrid courses, but in the case of these defined distance education courses, they must be documented on the course syllabus as described below.

Distance Education Student Authentication Policy and Syllabus Requirements

UT Permian Basin's Distance Education Student Authentication Policy requires the University to employ processes (documented in each distance education syllabus) to verify that each student who registers for a distance education course is the same student who participates in, completes, and receives credit for the course.

The policy requires faculty members teaching distance education courses to employ at least two methods of verification to ensure student identities. The first method of verification is accomplished by the student logging into Canvas, our learning management system. To access all UTPB courses, students must login to Canvas uniqueness personal identifying username and secure password. This is the primary method of student identity verification. The Distance Education Student Authentication Policy requires at least one additional student identification method within the distance learning course that has been determined and approved by the faculty or academic program. The second method of authentication must be explicitly stated in the syllabus. The second method of student authentication maybe:

- Proctored exams using an approved photo ID*.
- Presentation of approved photo ID through a webcam and optional levels of proctoring during assessment.
- Field or clinical experiences using an approved photo ID.
- Synchronous or asynchronous video activities using an approved photo ID.
- In hybrid distance education courses, which have an in-person meeting component, the secondary method of student authentication may be accomplished (as is it may be done in hyflex and face-to face-courses) by in-person attendance monitoring as well as through required in-class instructor proctored examinations and other assessments.
- Other Technologies or procedures, etc. (which must be detailed in the syllabus).

If faculty require secondary method of verification for which students are charged a fee(e.g. face-to-face proctoring at an off-campus site that charges a fee), this notification must be stated on the course schedule and in the course syllabus as well.

*Approved photo identifications include passports, government issued identification, driver's licenses, military ID from DoD; dual credit and early college high school students use school district identifications.

Important Information

This course is cross listed with CHLD 3301.701 (Introductory Statistics). Please see the syllabus for CHLD 3301.701. The content, information, and dates listed on this syllabus are tentative and subject to change or correction. Such changes or corrections will be reflected in the CHLD 3301.701 syllabus and/or in the CHLD/PSYC 3301.701 course on Canvas.

Sample Syllabus