



PSY 301.01S/51R UNDERSTANDING STATISTICS

COURSE SYLLABUS: SPRING 2020
MWF 10:00-10:50 AM, BA 244/CHEC 217

INSTRUCTOR INFORMATION

Instructor: Dr. Hsun-Yu Chan
Office Location: Henderson 201-B
Office Hours: Monday & Wednesday 2-5 PM, and by appointment
Office Phone: (903) 886-5940
Office Fax: (903) 886-5510
University Email Address: Hsun-Yu.Chan@tamuc.edu
Preferred Form of Communication: Email
Communication Response Time: 24 hours on weekdays
Note. Emails without proper salutations will NOT be responded.

COURSE INFORMATION

Materials – Textbooks, Readings, Supplementary Readings

Textbook(s) Required:

Moore, D. S., & Notz, W. I. (2017). *Statistics: Concepts and controversies* (9th ed.).
MacMillan Learning. ISBN: 978-1-4641-9300-2
Additional handouts are distributed through D2L

Software Required:

- Statistical software (choose one):
 - JASP (free download for Windows and Mac at <https://jasp-stats.org/>), or
 - PSPP (free download for Windows and Mac at <https://www.gnu.org/software/pspp/get.html>)
- Spreadsheet processing software (e.g., Microsoft Excel, OpenOffice.org, Numbers)
- Word processing software (e.g., Microsoft Office Word, OpenOffice.org, Pages)
- Internet Browser (e.g., Mozilla FireFox, Google Chrome, Safari, Opera)

Calculator: One calculator is required. Any calculator that can process square root will do. **No scientific or graphing calculator is allowed in this class.**

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Course Description

An introductory applied statistics course that focuses on descriptive and inferential statistical methods. Emphasis will be placed on learning statistics through application and experience. Topics include visual displays of data, measures of central tendency and variability, standardized scores, normal distributions, probability, sampling distributions, hypothesis testing, correlation, and regression.

In general terms, this course is about understanding the conceptual background of psychological statistics to provide you with a strong foundation for PSY 302, the next statistics course in your degree plan. The more you understand in this class, the better advantage you will have going forward into PSY 302.

I strongly encourage you to keep your textbook and any materials you accumulate. They will be a beneficial reference going forward.

COURSE REQUIREMENTS

Minimal Technical Skills Needed

- Using the learning management system (D2L)
- Using word processing software (e.g., Microsoft Word)
- Using statistical software package and/or spreadsheet software
- Using regulator calculator to complete simple statistical computation.

Instructional Methods

The course is conducted through face-to-face lectures, when the lectures are streamed via D2L YouSeeU-Virtual Classroom for students enrolled in PSY 301 51R. There are small-group discussions during class and students are expected to fully engage in these discussions. All students are expected to use D2L on a regular basis to complete assignments and access class announcements and materials.

Student Responsibilities or Tips for Success in the Course

In general, students are expected to invest six to nine hours per week into preparing for this course. To successfully complete the course, students should read the textbook and materials on D2L before class, attend each class, complete each assignment on time, and fully engage in in-class activities. Reviewing the course material thoroughly is essential for preparing for the exams and assignments.

GRADING

Course grades will be determined by the following scale. See the Assessments section for more information.

Evaluation:

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Assignments	(4x)	400 points
Exams	(3x)	300 points
Total points possible		700 points

There are in-class quizzes throughout the semester. The points you earn are counted as extra credits. These extra credits will be added to your final total points before the letter grade is calculated. Research participation through the online Experiment Management System (EMS) is required and extra credits will be awarded according to your participation (see below and Students' Guide to Research Participation and Student Memo handouts for details).

Final grades in this course will be based on the following scale:

A: 90% and above	(630.00 points and above)
B: 80%-89%	(560.00-629.99 points)
C: 70%-79%	(490.00-559.99 points)
D: 60%-69%	(420.00-489.99 points)
F: 0%-59%	(0.00-419.99 points)

Assessments

The course grade is calculated by your performance in the following exams and assignments:

- I. **Exams** (3 exams; total: 300 points): Exams will constitute a portion of the grade. There will be three non-cumulative exams. Exams will vary in terms of format, but are likely to include both multiple-choice and short-answer/essay questions.
- II. **Assignments** (4 assignments; total: 400 points): Assignments are designed to help students review the material and familiarize with key statistical concepts. Each assignment can be downloaded from D2L, and is due before class. See the course calendar (pp. 5-6) for the deadlines.
- III. **PsycLearn Online Learning** (required; extra credits). Student's learning experience is enhanced by the incorporation of PsycLearn platform, freely available to all students via D2L. Module 2, 5, and 11 are incorporated as assigned readings (PsycLearn #1, #2, and #3) or assignment 2 and 3. Students will earn up to 10 extra points, proportion to the performance in the quizzes in PsycLearn, upon on-time completion of PsycLearn #1, #2, and #3 (30 points in total). See the course calendar (pp. 5-6) for the deadlines.
- IV. **Research Participation** (required; extra credits): A goal of this class is to help you familiarize yourself with research methods. One way to obtain this goal is to have you participate in research studies. Participating in research studies contributes to students and faculty at A&M-Commerce, your understanding of how research is conducted, and human knowledge in general. All students in this class are required to participate in the psychology department's participant pool or complete alternative assignments (see me for more information on alternative assignments). Students must complete a total of 6 credits, and 2 or more of them have to be earned from participating in face-to-face experiments. However, if you complete your first 2 face-to-face credits without any "no-shows" you will only need to complete 4 credits in

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total, with 2 or more credits earned from face-to-face experiments. When you first sign into the experiment management system (EMS) you will be asked to take a prescreen. The prescreen takes about 20 minutes to complete. If you complete the prescreen before January 24, 2020 you will receive 0.5 extra credit to your final score. If you fail to complete this portion of the class your grade will be lowered by one letter grade. In effect, if you have an 'A' in the class but fail to complete the research participation (either through participating in research studies, alternative assignments, or a mixture of both) your final grade in the class will be a 'B.' More information about participating in research, such as how to log in to the EMS, is given at separate handouts on D2L.

PSY 301 COURSE OUTLINE / CALENDAR

Week	Date	Topic	Reading
1	1/13	Introduction; Syllabus	
	1/15	What kind of data do we have?	Ch. 5, 6, & 8
	1/17	What kind of data do we have? PsycLearn #1: Module 2 <i>Getting Started</i> Sub-modules: from “Variables & Relationships” to “Mastering the Content: Types of Research Questions and Variables” (DUE: 11:59 pm, 1/21)	Ch. 5, 6, & 8
2	1/20	NO CLASS (Martin Luther King, Jr. Day)	
	1/22	Where do data come from?	Ch. 1 & 3
	1/24	Where do data come from?	Ch. 1 & 3
3	1/27	Describing data: Central tendency DUE: Assignment #1 (10:00 am)	Ch. 12
	1/29	Describing data: Central tendency	Ch. 12
	1/31	<i>Review</i> PsycLearn #2: Module 5 <i>Research Questions and Design</i> Sub-modules: from “Module Introduction” to “Practice: Identify the Research Design” (DUE: 11:59 pm, 2/4)	
4	2/3	Describing data: Variation	Ch. 8 & 12
	2/5	Describing data: Variation	Ch. 8 & 12
	2/7	Describing data: Percentile	Ch. 13
5	2/10	Data visualization DUE: Assignment #2 in PsycLearn (10:00 am): Module 11 <i>Analyzing and Interpreting Data</i> Sub-modules: from “Module Introduction” to “Mastering the Content: Measures of Dispersion”	Ch. 10 & 11
	2/12	Data visualization	Ch. 10 & 11
	2/14	<i>Review</i>	
6	2/17	EXAM 1	
	2/19	<i>Discussion: Exam 1</i>	
	2/21	Probability	Ch. 17 & 18
7	2/24	Probability	Ch. 17 & 18
	2/26	Normal distribution	Ch. 13
	2/28	Normal distribution	Ch. 13
8	3/2	Normal distribution	Ch. 13
	3/4	<i>Review</i>	
	3/6	Sampling & sampling distribution	Ch. 21
X	3/9-3/13	SPRING BREAK; NO CLASS!	
9	3/16	Sampling & sampling distribution	Ch. 21
	3/18	Sampling & sampling distribution	Ch. 21

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	3/20	NO CLASS (Instructor at SRA conference) DUE: Assignment #3 in PsycLearn (10:00 am): Module 11 <i>Analyzing and Interpreting Data</i> Sub-modules: from “Inferential Statistics: Tests, Effect Size, and Confidence Interval” to “Practice: Inferential Statistics”	
10	3/23	Statistical hypothesis: Theory	Ch. 22
	3/25	Statistical hypothesis: Theory	Ch. 22
	3/27	<i>Review</i>	
11	3/30	EXAM 2	
	4/1	<i>Discussion: Exam 2</i>	
	4/3	NO CLASS (Instructor at CSCC conference)	
12	4/6	Statistical hypothesis: Theory	Ch. 22
	4/8	Statistical hypothesis: Testing	Ch. 22 & 23
	4/10	Statistical hypothesis: Testing PsycLearn #3: Module 11 <i>Analyzing and Interpreting Data</i> Sub-modules: from “Null Hypothesis and Alternative Hypothesis” to “Practice: Testing Hypotheses” (DUE: 11:59 pm, 4/14)	Ch. 22 & 23
13	4/13	Statistical hypothesis: Testing	Ch. 22 & 23
	4/15	<i>Review</i>	
	4/17	NO CLASS (Instructor at AERA conference)	
14	4/20	NO CLASS (Instructor at AERA conference)	
	4/22	Statistical testing in practice DUE: Assignment #4 (12:00 pm)	
	4/24	Statistical testing in practice	
15	4/27	Statistical testing in practice	
	4/29	Statistical testing in practice	
	5/1	<i>Review</i>	
Final Exam: 10:30 AM – 12:30 PM, May 4th			

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TECHNOLOGY REQUIREMENTS

LMS

All course sections offered by Texas A&M University-Commerce have a corresponding course shell in the myLeo Online Learning Management System (LMS). Below are technical requirements

LMS Requirements:

<https://community.brightspace.com/s/article/Brightspace-Platform-Requirements>

LMS Browser Support:

https://documentation.brightspace.com/EN/brightspace/requirements/all/browser_support.htm

YouSeeU Virtual Classroom Requirements:

<https://support.youseeu.com/hc/en-us/articles/115007031107-Basic-System-Requirements>

ACCESS AND NAVIGATION

You will need your campus-wide ID (CWID) and password to log into the course. If you do not know your CWID or have forgotten your password, contact the Center for IT Excellence (CITE) at 903.468.6000 or helpdesk@tamuc.edu.

Note: Personal computer and internet connection problems do not excuse the requirement to complete all course work in a timely and satisfactory manner. Each student needs to have a backup method to deal with these inevitable problems. These methods might include the availability of a backup PC at home or work, the temporary use of a computer at a friend's home, the local library, office service companies, Starbucks, a TAMUC campus open computer lab, etc.

COMMUNICATION AND SUPPORT

If you have any questions or are having difficulties with the course material, please contact the Instructor.

Technical Support

If you are having technical difficulty with any part of Brightspace, please contact Brightspace Technical Support at 1-877-325-7778. Other support options can be found here:

<https://community.brightspace.com/support/s/contactsupport>

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Interaction with Instructor Statement

Students are encouraged to attend the office hour (W & F 2:00-5:00 PM, or by appointment made on <https://hsun-yuchan.youcanbook.me/>). Email is the best way to contact the instructor, and on weekdays please allow 24 hours for a response. If you do not receive a response in 24 hours, please resend the message. **Emails without proper salutations will NOT be responded.**

COURSE AND UNIVERSITY PROCEDURES/POLICIES

Course Specific Procedures/Policies

No make-up exam is allowed unless prearranged 48 hours prior to the actual exam date and time. Each assignment is due before class (i.e., 10:00 am on the due day). Ten points will be deducted from each late assignment if submitted within 24 hours after the deadline, and no assignment is accepted afterward, unless prearranged 48 hours before the deadline. If the assignment is completed on Word processing software, only files in .docx or .pdf format will be accepted and all formula should be typed neatly. If completed in longhand, the documents have to be properly scanned in PDF format. It is the student's responsibility to use legible handwriting, or points will be deducted. Other formats, such as photos taken with smartphone, will not be accepted.

This class provides a **child-friendly environment**. Students are welcome to bring their child/family under the age of 18 to class when other arrangements are not available. No prior approval is required.

Syllabus Change Policy

The syllabus is a guide. Circumstances and events, such as student progress, may make it necessary for the instructor to modify the syllabus during the semester. Any changes made to the syllabus will be announced in advance.

University Specific Procedures

Student Conduct

All students enrolled at the University shall follow the tenets of common decency and acceptable behavior conducive to a positive learning environment. The Code of Student Conduct is described in detail in the [Student Guidebook](http://www.tamuc.edu/Admissions/oneStopShop/undergraduateAdmissions/studentGuidebook.aspx).
<http://www.tamuc.edu/Admissions/oneStopShop/undergraduateAdmissions/studentGuidebook.aspx>

Students should also consult the Rules of Netiquette for more information regarding how to interact with students in an online forum:
<https://www.britannica.com/topic/netiquette>

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TAMUC Attendance

For more information about the attendance policy please visit the [Attendance](#) webpage and [Procedure 13.99.99.R0.01](#).

<http://www.tamuc.edu/admissions/registrar/generalInformation/attendance.aspx>

<http://www.tamuc.edu/aboutUs/policiesProceduresStandardsStatements/rulesProcedures/13students/academic/13.99.99.R0.01.pdf>

Academic Integrity

Students at Texas A&M University-Commerce are expected to maintain high standards of integrity and honesty in all of their scholastic work. For more details and the definition of academic dishonesty see the following procedures:

[Undergraduate Academic Dishonesty 13.99.99.R0.03](#)

<http://www.tamuc.edu/aboutUs/policiesProceduresStandardsStatements/rulesProcedures/13students/undergraduates/13.99.99.R0.03UndergraduateAcademicDishonesty.pdf>

[Graduate Student Academic Dishonesty 13.99.99.R0.10](#)

<http://www.tamuc.edu/aboutUs/policiesProceduresStandardsStatements/rulesProcedures/13students/graduate/13.99.99.R0.10GraduateStudentAcademicDishonesty.pdf>

Students with Disabilities-- ADA Statement

The Americans with Disabilities Act (ADA) is a federal anti-discrimination statute that provides comprehensive civil rights protection for persons with disabilities. Among other things, this legislation requires that all students with disabilities be guaranteed a learning environment that provides for reasonable accommodation of their disabilities. If you have a disability requiring an accommodation, please contact:

Office of Student Disability Resources and Services

Texas A&M University-Commerce

Director: Ms. Sandi Patton

Gee Library- Room 162

Phone (903) 886-5150 or (903) 886-5835

Fax (903) 468-8148

Email: studentdisabilityservices@tamuc.edu

Website: [Office of Student Disability Resources and Services](#)

<http://www.tamuc.edu/campusLife/campusServices/studentDisabilityResourcesAndServices/>

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Nondiscrimination Notice

Texas A&M University-Commerce will comply in the classroom, and in online courses, with all federal and state laws prohibiting discrimination and related retaliation on the basis of race, color, religion, sex, national origin, disability, age, genetic information or veteran status. Further, an environment free from discrimination on the basis of sexual orientation, gender identity, or gender expression will be maintained.

Campus Concealed Carry Statement

Texas Senate Bill - 11 (Government Code 411.2031, et al.) authorizes the carrying of a concealed handgun in Texas A&M University-Commerce buildings only by persons who have been issued and are in possession of a Texas License to Carry a Handgun. Qualified law enforcement officers or those who are otherwise authorized to carry a concealed handgun in the State of Texas are also permitted to do so. Pursuant to Penal Code (PC) 46.035 and A&M-Commerce Rule 34.06.02.R1, license holders may not carry a concealed handgun in restricted locations.

For a list of locations, please refer to the [Carrying Concealed Handguns On Campus](#) document and/or consult your event organizer.

Web url:

<http://www.tamuc.edu/aboutUs/policiesProceduresStandardsStatements/rulesProcedures/34SafetyOfEmployeesAndStudents/34.06.02.R1.pdf>

Pursuant to PC 46.035, the open carrying of handguns is prohibited on all A&M-Commerce campuses. Report violations to the University Police Department at 903-886-5868 or 9-1-1.

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