

PSY 330: Statistical Methods

Course and Faculty Information

Course Description: Advanced application of statistics to psychology. Highly recommended for students interested in attending graduate school.

Credits: 3

Prerequisites: ECN 221, JUS 302, POS 401, PSY 230, 231, QBA 221, SOC 390, 395, or STP 226 with C or better

Instructor: Trudy Y. Kuo, Ph.D. trudy.kuo@asu.edu

Course Assistants: Michelle Miller memill32@asu.edu
Yevgeniy (Gene) Patent ypatent@asu.edu
Timothy Stump trstump@asu.edu

Purpose of the Course

This course builds on the fundamental concepts learned in introductory statistics (such as PSY230) to provide additional insights and related concepts in statistical analysis. The course focuses on guiding students in selecting statistical methods, performing statistical analysis, and interpreting statistical analysis results.

Course Learning Outcomes

At the completion of this course, students will be able to:

- Identify the appropriate statistical method for data analysis for a real-world scenario or scientific research question.
- Perform and interpret statistical analysis using SPSS, with both descriptive statistics and inferential statistics (including t tests, ANOVA, correlation, regression).
- Interpret data analysis results in relation to real-world and scientific implications.
- Critically evaluate statistical analysis reported in research publications and news media.

Textbooks

The following is the textbook required in this course for weekly readings and it is accessible via ASU library without charge. For your convenience, the assigned chapters will also be posted in Canvas for downloading to read off-line. There is no need to purchase the book unless you prefer a paper copy for personal use.

Abbott, M. L. (2016). *Using statistics in the social and health sciences with SPSS and Excel*. Hobokam, NJ: John Wiley & sons, Inc.

Course Access

Your ASU courses can be accessed through your My ASU home page. You can also go to canvas.asu.edu to access your Canvas Dashboard where all your courses in Canvas can be accessed.

Computer Requirements

This is a fully online course; therefore, it requires a computer with internet access and the following technologies:

- Web browsers ([Chrome](#), [Mozilla Firefox](#), or [Safari](#))
- [Adobe Acrobat Reader](#) (free)
- [Adobe Flash Player](#) (free)
- Webcam, microphone, headset/earbuds, and speaker
- Microsoft Office ([Microsoft 365 is free](#) for all currently-enrolled ASU students)
- Reliable broadband internet connection (DSL or cable) to stream videos.

Note: A smartphone, iPad, Chromebook, etc. will not be sufficient for completing your work in ASU Online courses. While you will be able to access course content with mobile devices, you must use a computer for all assignments, quizzes, and virtual labs.

Student Success

To be successful:

- check the course daily
- read announcements
- read and respond to course email messages as needed
- complete assignments by the due dates specified
- communicate regularly with your instructor and peers
- create a study and/or assignment schedule to stay on track
- access [ASU Online Student Resources](#)

Course Modules

The course content is organized into modules, with one module per week for seven weeks. Based on the start and end dates of this current session, each weekly module runs from Monday to Sunday, with weekly course work due by midnight on **Sundays** (Arizona time), unless otherwise noted.

The components in each module are described below:

I. Core Content

A combination of the following resources will be provided for achieving the learning objectives.

- Textbook chapters and/or articles from the ASU library
- Lectures and tutorials recorded by the instructor
- Other learning materials (such as interactive presentations) provided by the instructor
- Publications and resources available on the internet

II. Weekly Assignments (40 points each)

Each week there is an assignment due by the end of the module. Each assignment requires students to analyze the data provided using SPSS (though Excel may also be needed in certain steps of the analysis) and then answer questions based on the analysis results.

- Documents to download for the assignment:
 - A word document with the problem sets, to be used as the answer sheet
 - One or more data sets in Excel format
- Documents to submit for the assignment:
 - The Word document with the problem sets and all the answers typed out clearly. Hand written answers (scanned or photographed) will not be accepted.
 - The SPSS output file (.spv) and data file (.sav) demonstrating your work. There may be multiple data files and/or output files for some assignments.

III. Weekly Discussion Forums (20 points each)

There is a discussion forum in every module. Students apply the statistical knowledge and skills to the discussion of research methods in the context of scientific articles and/or their own research ideas. Detailed instruction and grading rubric will be provided for each of the following posts in Canvas. The general steps to participate in each discussion forum are listed here:

- Each discussion forum spans two modules (weeks), except the discussion forum for module (week) 7.
- For each discussion topic, there are two groups based on two different articles. Each student will choose a group to join and stay in the group for two weeks.
- In the first week of a discussion topic, each student will submit an initial post (15 points) to address the discussion prompt, and then make one comment (5 points) on another student's initial post.
- In the second week of a discussion topic, each student will submit a self-evaluation (15 points) and revised initial post (5 points) after learning from the discussion group.
- The discussion forum for Module 7 is different and requires one week of participation. An initial post (15 points) and a comment (5 points) are required.

IV. Biweekly Quizzes (20 points each)

Each Quiz consists of 20 questions (20 points) randomly pulled from a larger question pool. The Quizzes are open-book and the time limit is 120 minutes. Each Quiz can only be taken once in one sitting before the end of the module and it must be completed by 11:59 pm on the due date, or it will not be accepted for grade. Practice Quiz questions will be provided for the first two quizzes to familiarize students with the format and style of the questions.

- Quiz#1: Due by the end of Module 3, covering modules 1-2

- Quiz#2: Due by the end of Module 5, covering modules 3-4
- Quiz#3: Due by the end of Module 7, covering modules 5-6

V. Special Project (20 points)

The Special project has two components.

- In Module 2, students complete a questionnaire for the purpose of generating a data set.
- In Module 6, students formulate a hypothesis based on the questionnaire, analyze the data to test the hypothesis, and report the finding.

Grading

Grade components in this course:

Assessment Deliverables	Points Each	Total Points	% of Final Grade
Weekly Assignment	40	40 x 7 = 280	56%
Weekly Discussion Forum	20	20 x 7 = 140	28%
Bi-weekly Quizzes (M3, M5, M7)	20	20 x 3 = 60	12%
Special Project (M2, M6)	10	10 x 2 = 20	4%
Total		500	
Extra Credit Activities			
Syllabus quiz	5	---	---

Your final grade will be determined based on the following grading schema:

Final Grade	Point Range	Final Grade	Point Range
A+	480 or higher	B-	400 – 419.99
A	470 – 484.99	C+	385 – 399.99
A-	450 – 469.99	C	350 – 384.99
B+	435 – 449.99	D	300 – 349.99
B	420 – 434.99	E/F	0 – 299.99

Submitting Assignments

Grading Policies

- Assignment due dates follow Arizona Standard time. Click the following link to access the [Time Converter](#) to ensure you account for the difference in Time Zones. Note: Arizona does not observe daylight savings time.
- All assignments, unless otherwise announced, MUST be submitted to the designated area of Canvas. Do not submit an assignment via email.

- All assignments, if manually graded, will be graded and feedback provided within 7 calendar days from the due date.

Late or Missed Assignments

Notify the instructor BEFORE an assignment is due (or as soon as possible with acute illness) if an urgent situation arises and you are unable to submit the assignment on time. Official documentation of the emergency is required for requesting an extension of the due date. Follow the appropriate University policies to request an [accommodation for religious practices](#) or to accommodate a missed assignment [due to University-sanctioned activities](#).

Late submission without a documented emergency is handled in the following manner:

- Assignments:
 - Late assignments are accepted with 20% deduction per day past due.
- Discussion forum initial post:
 - Late posts are accepted with 20% deduction per day up to the end of the module.
- Discussion forum peer comment, self-evaluation, and revised initial post:
 - Late posts are not accepted.
- Biweekly quiz:
 - Late submissions are not accepted.
- Special Project:
 - Late submission are accepted with 20% deduction per day past due.
- Extra credit activities:
 - Late submissions/posts are not accepted.

Communicating with the Instructor

Community Forum

This course uses a discussion topic called "Community Forum" for general questions and comments about the course. Prior to posting a question or comment, check the syllabus, announcements, and existing posts to ensure it's not redundant. You are encouraged to respond to the questions of your classmates.

Please note that it is inappropriate to post answers to any type of assignment/quiz/exam in the Community Forum for any purpose, regardless of the accuracy of those answers.

Email questions of a personal nature to your instructor. You can expect a response within 24 hours.

Chat

The Chat tool in Canvas allows students and teachers to interact in real time. Use Chat only for informal course-related conversations unless your instructor informs you otherwise. Chat is not ideal for questions about assignments; instructors are not required to monitor it and conversations may be buried or lost.

Email

ASU email is an [official means of communication](#) among students, faculty, and staff. Students are expected to read and act upon email in a timely fashion. Students bear the responsibility of missed messages and should check their ASU-assigned email regularly.

Please make sure "PSY330" is written somewhere in the subject line of your email to identify the course because I teach multiple courses in each session.

All instructor correspondence will be sent to your ASU email account.

ASU Online Course Policies

View the [ASU Online Course Policies](#)

Accessibility Statements

View the [ASU Online Student Accessibility](#) page to review accessibility statements for common tools and resources used in ASU Online courses.

Syllabus Disclaimer

The syllabus is a statement of intent and serves as an implicit agreement between the instructor and the student. Every effort will be made to avoid changing the course schedule but the possibility exists that unforeseen events will make syllabus changes necessary. Remember to check your ASU email and the course site frequently.