

PSY 315

Behavioral Sciences Statistics

Summer 2026

Online Flex | 3 Credits

Course Number	PSY 315-90
Course Title	Behavioral Sciences Statistics
School	School of Education and Behavioral Sciences
Department	Psychology
Term	Summer 2026
Credits	3
Delivery Format	Online Flex
Canvas	https://chaminade.instructure.com/

Instructor Information

Instructor	Abby Halston, Ed.D., NCC, LMFT
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Office Location	Behavioral Sciences 111A
Office Hours	Mondays, 10:00 a.m.-12:00 p.m., and by appointment
Communication	Email responses are generally provided within 24 hours. Canvas assignment comments may require up to 48 hours.

Course Description and Materials

Catalog Course Description

This course provides an introduction to the methods and rules for organizing and interpreting observations. Topics include descriptive and inferential statistics, frequency distributions, hypothesis testing, analysis of variance, estimation, and chi-square analysis.

Prerequisites

EN 102 and PSY 101.

Required Materials

- Salkind, N. J. Statistics for People Who (Think They) Hate Statistics (7th ed.).
- Course companion site: <https://edge.sagepub.com/salkindfrey7e/student-resources>
- SPSS statistical software for data entry, analysis, and interpretation.
- Canvas course site for readings, quizzes, assignments, announcements, and feedback.

Technology Requirements

- Reliable internet access and a PC or Mac computer.
- Ability to stream video, play audio, and open PDF files.
- Speakers or headphones for course media.

For technical assistance, contact the Chaminade IT Help Desk at cstechsupport@chaminade.edu or 808-735-4855.

Credit Hour Requirement

This three-credit course requires a minimum of 135 hours of student engagement. In this accelerated online course, engagement includes assigned readings, chapter quizzes, chapter exercises, SPSS practice, applied statistical activities, and other Canvas-based learning activities.

Course Activity	Estimated Hours
Online instruction and equivalent activities	37.5
Course readings	45
Quizzes, chapter exercises, and SPSS work	45
Communities of practice and other activities	7.5
Total	135

Learning Outcomes

Psychology Program Learning Outcomes (PLOs)

1. Identify key concepts, principles, and overarching themes in psychology.
2. Demonstrate adaptation and change through the critical interpretation, design, and evaluation of psychological research.
3. Demonstrate effective written and oral communication within the field of psychology.
4. Explain the dynamic interaction among mind, body, and social influences as part of educating the whole person.

Course Learning Outcomes (CLOs)

Upon successful completion of PSY 315, students will be able to:

1. Explain the distinction between populations and samples and identify the research issues and statistical techniques associated with each. (PLO 2)
2. Create and interpret visual presentations of data using graphs and tables. (PLO 3)
3. Use SPSS for data entry, variable coding, statistical analysis, and output interpretation. (PLO 2)
4. Apply the scientific method to assess relationships between variables and test hypotheses. (PLO 2)

Alignment of Learning Outcomes

Alignment	CLO 1	CLO 2	CLO 3	CLO 4
Marianist Value	5	5	5	5
Program Learning Outcome	2	3	2	2
Native Hawaiian Value	5	5	5	5

Mission and Values

Marianist Values

1. Education for formation in faith.
2. Provide an integral, quality education.
3. Educate in family spirit.
4. Educate for service, justice, and peace.
5. Educate for adaptation and change.

PSY 315 is especially aligned with Educate for Adaptation and Change. Students develop flexible thinking, respect for differences, critical reasoning, and open-mindedness as they learn to interpret data and apply statistical methods to behavioral-science questions.

Native Hawaiian Values

- 1. Formation in Faith (Mana):** E ola au i ke akua - May I live by God.
- 2. Integral, Quality Education (Na‘auao):** Lawe i ka ma‘alea a kū‘ono‘ono - Acquire skill and make it deep.
- 3. Family Spirit (‘Ohana):** Recognize others, be recognized, help others, be helped; such is a family relationship.
- 4. Service, Justice, and Peace (Aloha):** Education is the standing torch of wisdom.
- 5. Adaptation and Change (‘Āina):** All knowledge is not taught in the same school.

Assessment and Grading

Assessment Summary

Assessment	Description	Points
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Chapter Quizzes	Eighteen quizzes assessing understanding of assigned chapters.	135
Chapter Exercises and SPSS Assignments	Applied exercises emphasizing interpretation, calculation, and software use.	85
Communities of Practice	Documented meaningful participation in an approved online community.	10
Total Possible Points		230

Note: The source syllabus lists 240 total possible points, while the listed graded activities total 230 points. Confirm the remaining 10 points in Canvas.

Grading Scale

Letter Grade	Percentage
A	90-100%
B	80-89%
C	70-79%
D	60-69%
F	0-59%

Course Activities

Chapter Quizzes

Students will complete 18 chapter quizzes in Canvas. The quizzes reinforce key concepts and prepare students for more advanced statistical applications.

Chapter Exercises

Chapter exercises develop comprehension, application, analysis, synthesis, and evaluation of statistical concepts. Assignments include hands-on SPSS practice.

SPSS Assignments

Students will use SPSS for data entry, variable coding, selection of statistical procedures, analysis, and interpretation of output.

Communities of Practice

Students will participate in an online community of practice and submit documentation showing meaningful engagement with students, faculty, or alumni on a statistics-related topic.

Scientific Method Applications

Students will apply the scientific method to evaluate relationships among variables, select appropriate analyses, and test hypotheses.

Course Policies

Participation and Attendance

Students are expected to remain active in Canvas and complete all required assignments by the final course deadline. Students should contact the instructor promptly when illness or other extenuating circumstances interfere with course participation.

Changes to the Syllabus

The instructor may revise course requirements or the schedule when necessary. Changes will be communicated through Canvas or Chaminade email.

Grades of Incomplete

A student in good standing may petition for an Incomplete only when extraordinary circumstances beyond the student's control prevent completion of course requirements. Any approved Incomplete must follow University policy and include a written completion plan.

Academic Honesty

Students must submit original work, cite sources accurately, and follow Chaminade University academic honesty standards. Plagiarism, cheating, fabrication, or unauthorized collaboration may result in academic and disciplinary consequences.

Student Accessibility

Students seeking accommodations should contact Kōkua 'Ike: Center for Student Learning at ada@chaminade.edu or 808-739-8305.

Title IX and Nondiscrimination

Chaminade University is committed to a learning environment free from sex discrimination and gender-based violence. Faculty members are required to report disclosures that fall under University reporting obligations. Current policies and support resources are available through the University Title IX and compliance offices.

Student Support Resources

Sullivan Family Library: Research support and access to scholarly literature.

Kōkua 'Ike: Tutoring, writing assistance, and accessibility services. tutoring@chaminade.edu | 808-739-8305

Purdue OWL: Writing, paper organization, and APA-style guidance.

Chaminade IT Help Desk: Canvas and technology support. cstechsupport@chaminade.edu | 808-735-4855

Summer 2026 Accelerated Course Schedule

Specific due dates will be posted in Canvas. The schedule below summarizes the major topics and assignments for the ten-week term.

Week	Theme	Readings	Assignments Due
1	Introduction to Statistics	Chapter 1: Statistics or Sadistics?	Milestone 1: Student Introduction; Chapter 1 Quiz
2	Frequency Distributions and Central Tendency	Chapters 2-4	Chapter 2-4 Quizzes; SPSS Introduction; Central Tendency Exercise
3	Measures of Variability and Probability	Chapters 5-6	Chapter 5-6 Quizzes; Probability Exercise
4	Sampling, Estimation, and Power	Chapters 7-8	Chapter 7-8 Quizzes; Sampling Exercise
5	Hypothesis Testing	Chapter 9	Chapter 9 Quiz; Hypothesis-Testing Exercise
6	Correlation	Chapter 10	Chapter 10 Quiz; Correlation Exercise; Milestone 2
7	Regression	Chapter 11	Chapter 11 Quiz; Regression Exercise
8	t Tests and ANOVA	Chapters 12-13	Chapter 12-13 Quizzes; t-Test and ANOVA Exercises
9	Advanced ANOVA and Nonparametric Statistics	Chapters 14-16	Chapter 14-16 Quizzes; Two-Way and Repeated-Measures Exercises; Nonparametric Exercise
10	Multivariate and Applied Statistics	Chapters 17-18	Chapter 17-18 Quizzes; SPSS Final Project

Appendix: Scientific Method Definitions

The methods of science are tools used to obtain knowledge about phenomena. The scientific method is a systematic set of assumptions and rules for collecting and evaluating data in ways designed to reduce bias. Central to the scientific method is the collection of empirical evidence.

A theory is a broad body of interconnected propositions about how some portion of the world operates. A hypothesis is a more specific proposition that may be derived from a theory. Research may support or fail to support a hypothesis; it does not directly prove a theory.

Scientific research has four general goals: to describe behavior, predict behavior, determine causes of behavior, and understand or explain behavior. Replication and the accumulation of evidence strengthen confidence in research findings.