

Behavioral Sciences Statistics: Psy/CJ 315

Schofield Education Center, Tuesday 5:30 – 9:40 p.m.

Professor: Kristopher Kern
Contact Information: Kristopher.kern@maryknollschool.org
Kern4529@gmail.com
(808) 479-3978
<http://kriskern.weebly.com>

Textbook: Essential Statistics for Behavioral Science, 9th Edition,
Frederick Gravetter & Larry Wallnau

I. Assessments:

1. Chapter Quizzes:

- Questions will be multiple choice
- Students will use Socrative.com to complete Chapter Quiz
- A device (i.e. cell phone, laptop, tablet) is required for the quiz
- Quizzes will be available from 5:00 to 6:00 p.m. before each Tuesday class and/or once the lecture has been completed
- Students who miss the quiz or are absent from class will be need to set up a time to complete the quiz online.
- Score = 7 pts. for each Chapter Quiz

2. Exercises:

- Chapters/Lectures will have an exercise to further elaborate concepts and to provide more understanding for the student
- We will review in class: **student is expected to complete prior to departure**
- Exercises will be graded on:
 - Process (i.e. showing your work or providing a citation)
 - Correct Answer
- Score = 10 pts. for each Chapter exercise

3. Mid Terms:

- Consisting of 5 problems from specific chapters covered
- Questions will have multiple parts and will assess previous knowledge
- Mid Terms will be provided week prior to due date
 - Mid Term #1 Due July 21
 - Mid Term #2 Due August 11
 - Mid Term #3 Due August 25

4. Final Exam:

- Consisting of 10 problems
- Questions will have multiple parts and will assess cumulative knowledge
- Final will be provided week prior to due date of September 15

5. Participating/Attendance:

- Students are expected to provide notification if they are missing class
- Multiple absences will jeopardize final grade

II. About the Course:

1. Program Course Linkage

The course develops and assesses the skills and competencies for the program student learning outcome of the Scientific Method and its Application in the Field of Psychology & Criminal Justice.

2. Catalogue Description

This course provides an introduction to the methods and rules for organizing and interpreting observations; descriptive and inferential statistics, including frequency distributions, hypothesis testing, simple analysis of variance, estimation, and Chi-Square.

The purpose of this course is to provide students with the fundamental building blocks necessary to conduct and analyze statistical research. Social science research, or the study of people and things around us, consists of many different parts – statistics is just one of these parts, albeit a very important one.

3. Student Learning Outcomes/Course goals

Upon completion of this course students will:

- The difference between populations and samples, and what is associated with each in terms of research issues and statistical techniques
- Variable types and levels of measurement
- The various types of descriptive statistics used in social science research, and how to produce these types of statistics in order to summarize and analyze data
- The various statistics and techniques used to assess relationships between variables
- The use and proper application and interpretation of inferential statistics in conjunction with hypothesis-testing
- The proper presentation and interpretation of data in graph and table form
- The methods of writing-up research results in a logical manner and in a suitable format for the social sciences
- Ability to apply the scientific method to the study of human behavior in various environmental contexts.

4. Marianist Educational Values

Chaminade University is a Catholic, Marianist University. The five characteristics of a Marianist education are:

1. Educate for Formation in Faith Catholic Universities affirm an intricate relationship between reason and faith. As important as discursive and logical formulations and critical thinking are, they are not able to capture all that can be and ought to be learned. Intellectual rigor coupled with respectful humility provide a more profound preparation for both career and life. Intellectual rigor characterizes the pursuit of all that can be learned. Respectful humility reminds people of faith that they need to learn from those who are of other faiths and cultures, as well as from those who may have no religious faith at all.

2. Provide an Excellent Education In the Marianist approach to education, “excellence” includes the whole person, not just the technician or rhetorician. Marianist universities educate whole persons, developing their physical, psychological, intellectual, moral, spiritual and social qualities. Faculty and students attend to fundamental moral attitudes, develop their personal talents and acquire skills that will help them learn all their lives. The Marianist approach to education links theory and practice, liberal and professional education. Our age has been deeply shaped by science and technology. Most recently, information and educational technologies have changed the way faculty and students research and teach. At Marianist Universities, two goals are pursued simultaneously: an appropriate use of information technology for learning, and the enhancement of interaction between students and teachers. As Catholic, Marianist Universities seek to embrace diverse peoples and understand diverse cultures, convinced that ultimately, when such people come together, one of the highest purposes of education is realized: a human community that respects every individual within it.

3. Educate in Family Spirit Known for their strong sense of community, Marianists have traditionally spoken of this sense as “family spirit.” Marianist educational experience fosters the development of a community characterized by a sense of family spirit that accepts each person with loving respect, and draws everyone in the university into the challenge of community building. Family spirit also enables Marianist universities to challenge their students, faculty and staff to excellence and maturity, because the acceptance and love of a community gives its members the courage to risk failure and the joy of sharing success.

4. Educate for Service, Justice, and Peace The Marianist approach to higher education is deeply committed to the common good. The intellectual life itself is undertaken as a form of service in the interest of justice and peace, and the university curriculum is designed to connect the classroom with the wider world. In addition, Marianist universities extend a special concern for the poor and marginalized and promote the dignity, rights and responsibilities of all people.

5. Educate for Adaptation to Change In the midst of rapid social and technological change, Marianist universities readily adapt and change their methods and structures so that the wisdom of their educational philosophy and spirituality may be transmitted even more fully. “New times call for new methods,” Father Chaminade often repeated. The Marianist university faces the future confidently, on the one hand knowing that it draws on a rich educational philosophy, and on the other fully aware for that philosophy to remain vibrant in changing times, adaptations need to be made.

Selected from Characteristics of Marianist Universities: A Resource Paper, Published in 1999 by Chaminade University of Honolulu, St. Mary’s University and University of Dayton

Each of these characteristics is integrated, to varying degrees, in this course.

5. Students with Disabilities:

Chaminade will provide assistance for any student with documented disabilities. Any student who believes he/she may need accommodations in this class must contact Dr. June Yasuhara, 739-4603, at the Counseling Center (office next to Security) in order to determine if the student meets the requirements for documented disability in accordance with the Americans with Disabilities Act. It is important to contact them as soon as possible so that accommodations are implemented in a timely fashion.

6. Academic Honesty

Academic honesty is an essential aspect of all learning, scholarship, and research. It is one of the values regarded most highly by academic communities throughout the world. Violations of the principle of academic honesty are extremely serious and will not be tolerated.

Students are responsible for promoting academic honesty at Chaminade by not participating in any act of dishonesty and by reporting any incidence of academic dishonesty to an instructor or to a University official. Academic dishonesty may include theft of records or examinations, alteration of grades, and plagiarism.

III. Grading: Total points = 660

Grades will be assigned according to the quality of the work produced. Case Studies will be given standards to meet and will be graded upon using the rubric provided. Grading will concentrate on your knowledge and application of the material.

90% - 100% = A

80% - 89% = B

70% - 79% = C

60% - 69% = D

50% - 59% = F

Calendar

Day	Chapters	Ch. Pp.
July 7	Chapter 1: Introduction to Statistics	3 - 33
	Appendix A.1: Symbols & Notation	551 - 553
	Appendix A.2: Proportions: Fractions, Decimals & Percentages	553 - 559
	Appendix A.5: Exponents & Square Roots	564 - 567
July 14	Chapter 2: Frequency Distributions	37 - 56
	Chapter 3: Measures of Central Tendency	59 - 85
	Chapter 4: Measures of Variability	89 - 115
	Appendix A.3: Negative Numbers	559 - 561
	Appendix A.4: Basic Algebra: Solving Equations	561 - 564
July 21	Mid-Term #1 DUE: Chapters 1 – 4 & Appendix A	
July 28	Chapter 5: z-Scores: Location of Scores & Standardized Distributions	123 - 146
	Chapter 6: Probability	149 - 173
August 4	Chapter 7: Probability & Samples: The Distribution of Sample Means	175 - 201
	Chapter 8: Introduction to Hypothesis Testing	203 - 241
August 11	Chapter 9: Introduction to the t Statistic	249 - 275
	Chapter 10: The t Test for Two Independent Samples	279 – 308
	Chapter 11: The t Test for Two Related Samples	313 - 335
August 11	Mid-Term #2 DUE: Chapters 5 - 8	
August 18	Chapter 12: Introduction to Analysis of Variance	345 - 387
	Chapter 13: Repeated-Measures and Two-Factor Analysis of Variance	393 - 438
August 25	Mid-Term #3 DUE: Chapters 9 - 13	
September 1	Chapter 14: Correlation	449 - 503
September 8	Chapter 15: Chi-Square Statistic: Tests for Goodness & Independence	509 - 541
September 15	Final Due: Cumulative	

