Basic Course Information

Semester:	**Spring 2023**	Instructor Name:	**Joseph Pipkin, PhD**
Course Title & #:	**Statistical Methods in Behavioral Sciences - Psy - 214**	Email:	**joseph.pipkin@imperial.edu**
CRN #:	**20326**	Webpage (optional):	**http://www.imperial.edu**
Classroom:	**3109**	Office #:	**IVC-203E**
Class Dates:	**2/13 – 6/09/2023**	Office Hours:	**M 12:15PM-2:15PM on campus and Wed. 12:15PM-2:15PM online**
Class Days:	**Monday and Wednesday**	Office Phone #:	**(760)355-6149 ext. 6149**
Class Times:	6:00PM – 7:25PM – Lecture 7:35PM – 8:40PM – Lab	Emergency Contact:	**(760)355-6144**
Units:	4	Class Format:	Lecture in room 3109: 6:00PM-7:25PM; Lab in room 3109: 7:35PM – 8:40PM

Course Description

Quantitative methods in behavioral sciences are considered including: scales of measurement, measures of central tendency and variability; probability and sampling distributions, visual displays of data (graphical methods), frequency tables and percentages; introduction to hypothesis testing, statistical inference and measures of association using correlation and linear regression; analysis of variance, chi-square and t-tests. Emphasis is placed on using software for data analysis such as SPSS and Excel and interpreting statistical findings from such analysis. Examples will be used from disciplines including business, social sciences, psychology, sociology, life sciences, health sciences, education and related areas. (CSU, UC)

Course Prerequisite(s) and/or Corequisite(s)

Prerequisite: PSY 101 and MATH 091 or MATH 098 with a grade of "C" or better or appropriate placement as defined by AB705.

Student Learning Outcomes

Upon course completion, the successful student will have acquired new skills, knowledge and or attitudes as demonstrated by being able to:

1. Understand, analyze and apply data using correlations.
2. Understand, analyze and apply data using "t" tests.
3. Understand, analyze and apply data using analysis of variance.
4. Understand, analyze and apply data using chi-square.

Course Objectives

Upon satisfactory completion of the course, students will be able to:
1. Determine the appropriateness and values of different measures of central tendency and variance, including standard scores and percentiles; and graphical representations of each.
2. Compute the coefficients of Spearman's and of Pearson's correlations and levels of significance; regression equations; and graphical representations of each.
3. Use probability theory to discuss aspects of the normal distribution including its use in statistical reasoning.
4. Compute and interpret "t" scores and their significance using data from a minimum of two samples.
5. Compute and interpret "F" ratios and significance levels from one-way and two-way analysis of variance.
6. Compute and interpret results from non-parametric tests including chi-square and Mann-Whitney.
7. Successfully load, interpret and print output data sheets and graphs from statistical software such as SPSS and Excel.

Textbooks & Other Resources or Links

Gravetter, Frederick & Wallnau, Larry B. (2013). Essentials of Statistics for the Behavioral Sciences, 10th Ed - Wadsworth/Cengage Learning: Belmont, CA. ISBN-13: 978-1-133-95657-0; ISBN-10: 1-133-95657-2

Course Requirements and Instructional Methods

The syllabus serves as a guide to the class. We may or may not cover all of the material shown and the dates are approximations. There will be several quizzes, lab assignments/take homework, one (1) midterm exam, and one (1) final exam. Quizzes will be announced in advance and will be given at the beginning of class. They may include multiple choice, true-false, and/or short answer questions. There will be no surprise quiz. We will have these accordingly. Chapter problems and discussions will be posted on Canvas as well. Exam and quiz questions will come from material covered in class and in the textbook. If you are late to class, you will not be allowed to take the quizzes or exams. Some chapters may not be covered in class, but you will still be responsible for the material, unless otherwise specified. No makeups for exams, quizzes, or lab assignments will be given without prior notification and/or documentation of an emergency. No work will be accepted over email. If you find that you are having difficulty with the course, you can seek additional assistance at the various campus support centers. In addition, if you need special accommodations while taking exams or quizzes let me know in advance. An approximate grade/point breakdown is shown below, and final course grades will be based on a subjective curve.

The lab portion of the course provides some flexibility. At times, it may be used to continue with lecture material. However, the primary focus of the lab is to provide a time for you to develop and work on the problems and equations associated with each of the chapters. No late chapter problem assignments will be accepted. These assignments are all or nothing (not extra credit), if you did the work properly you get the points, if the work is messy, incomplete, incorrect, late or non-existent you will not receive any credit. Further, another major purpose to the lab is to integrate computers into all aspects of the data analysis process. Specifically, students will apply knowledge from the lectures and readings in an effort to become comfortable with using two popular computer programs, SPSS and Microsoft Excel, to summarize, describe, graphically depict and interpret data.

Course Grading Based on Course Objectives

Grading Criteria:

An approximate grade/point breakdown for the various methods of evaluation in the course is shown below. Final course grade based on a curve.

Graded Coursework	
Quizzes	100 Points
Lab work	100 Points
Chapter Problems	100 Points
Midterm	60 Points
Final Exam	80 Points
Total	440 Points

Grade Breakdown
A = 90%
B = 80%
C = 70%
D = 60%
F = 59% or

(Example: 440 x 90% = 396 points for the "A")

DEADLINES: There will be ***no make-up exams or late work*** only under extreme circumstances. It is expected as a college student to be responsible and organized. I will be open for discussion regarding missed deadlines; however, please make an extra effort to be on time with all class requirements.

Course Policies

Attendance:

- A student who fails to attend the first meeting of a class or does not complete the first mandatory activity of an online class will be dropped by the instructor as of the first official meeting of that class. Should readmission be desired, the student's status will be the same as that of any other student who desires to add a class. It is the student's responsibility to drop or officially withdraw from the class. See General Catalog for details.
- Regular attendance in all classes is expected of all students.
- A student whose continuous, unexcused absences exceed the number of hours the class is scheduled to meet per week may be dropped. For online courses, students who fail to complete required activities for two consecutive weeks may be considered to have excessive absences and may be dropped.
- Absences attributed to the representation of the college at officially approved events (conferences, contests, and field trips) will be counted as 'excused' absences.

Classroom Etiquette:

- **Electronic Devices**: Cell phones and electronic devices must be turned off and put away during class, unless otherwise directed by the instructor.
- **Food and Drink:** are prohibited in all classrooms while class is in session. Water bottles with lids/caps are the only exception. Additional restrictions will apply in labs. Please comply as directed by the instructor.
- **Disruptive Students:** Students who disrupt or interfere with a class may be sent out of the room and told to meet with the Campus Disciplinary Officer before returning to continue with coursework. Disciplinary procedures will be followed as outlined in the General Catalog.

- **Children in the classroom:** Due to college rules and state laws, no one who is not enrolled in the class may attend, including children.

Online Netiquette:

- What is netiquette? Netiquette is internet manners, online etiquette, and digital etiquette all rolled into one word. Basically, netiquette is a set of rules for behaving properly online.
- Students are to comply with the following rules of netiquette…
  1. Identify yourself
  2. Include a subject line
  3. Avoid sarcasm
  4. Respect others' opinions and privacy
  5. Acknowledge and return messages promptly
  6. Copy with caution
  7. Do not spam or junk mail
  8. Be concise
  9. Use appropriate language
  10. Use appropriate emoticons (emotional icons) to help convey meaning
  11. Use appropriate intensifiers to help convey meaning [do not use ALL CAPS or multiple exclamation marks].

Academic Honesty:

Academic honesty in the advancement of knowledge requires that all students and instructors respect the integrity of one another's work and recognize the important of acknowledging and safeguarding intellectual property.

There are many different forms of academic dishonesty. The following kinds of honesty violations and their definitions are not meant to be exhaustive. Rather, they are intended to serve as examples of unacceptable academic conduct.

- Plagiarism is taking and presenting as one's own the writings or ideas of others, without citing the source. You should understand the concept of plagiarism and keep it in mind when taking exams and preparing written materials. If you do not understand how to "cite a source" correctly, you must ask for help.
- Cheating is defined as fraud, deceit, or dishonesty in an academic assignment, or using or attempting to use materials, or assisting others in using materials that are prohibited or inappropriate in the context of the academic assignment in question.

Anyone caught cheating or plagiarizing will receive a zero (0) on the exam or assignment, and the instructor may report the incident to the Campus Disciplinary Officer, who may place related documentation in a file. Repeated acts of cheating may result in an F in the course and/or disciplinary action. Please refer to the General Catalog for more information on academic dishonesty or other misconduct. Acts of cheating include, but are not limited to, the following: (a) plagiarism; (b) copying or attempting to copy from others during an examination or on an assignment; (c) communicating test information with another person during an examination; (d) allowing others to do an assignment or portion of an assignment; (e) using a commercial term paper service.

IMPERIAL VALLEY COLLEGE

Other Course Information

Imperial Valley College offers various services in support of student success. The following are some of the services available for students. Please speak to your instructor about additional services which may be available.

- CANVAS LMS. Canvas is Imperial Valley College's main Learning Management System. The Canvas Student Guides Site provides a variety of support available to students 24 hours per day. Additionally, a 24/7 Canvas Support Hotline is available for students to use 877-893-9853.

- **Learning Services.** There are several learning labs on campus to assist students through the use of computers and tutors. Please consult your Campus Map for the Math Lab; Reading, Writing & Language Labs; and the Study Skills Center.

- **Library Services**. There is more to our library than just books. You have access to tutors in the Study Skills Center, study rooms for small groups, and online access to a wealth of resources.

Disabled Student Programs and Services (DSPS)

Any student with a documented disability who may need educational accommodations should notify the instructor or the Disabled Student Programs and Services (DSP&S) office as soon as possible. The DSP&S office is located in Building 2100, telephone 760-355-6313. Please contact them if you feel you need to be evaluated for educational accommodations.

Student Counseling and Health Services

Students have counseling and health services available, provided by the pre-paid Student Health Fee.

- **Student Health Center**. A Student Health Nurse is available on campus. In addition, Pioneers Memorial Healthcare District and El Centro Regional Center provide basic health services for students, such as first aid and care for minor illnesses. Contact the IVC Student Health Center at 760-355-6128 in Room 1536 for more information.
- **Mental Health Counseling Services**. Short-term individual, couples, family, and group therapy are provided to currently enrolled students. Contact the IVC Mental Health Counseling Services at 760-355-6310 in Room 1536 for more information.

Veteran' Center

The mission of IVC Military and Veteran Success Center is to provide a holistic approach to serving military/veteran students on three key areas: 1) Academics, 2) Health and Wellness, and 3) Camaraderie; to serve as a central hub that connects military/ veteran students, as well as their families, to campus and community resources. Their goal is to ensure a seamless transition from military to civilian life. The Center is located in Building 600 (Office 624), telephone 760-355-6141.

Extended Opportunity Program and Services (EOPS)

The Extended Opportunity Program and Services (EOPS) offers services such as priority registration, personal/academic counseling, tutoring, book vouchers, and community referrals to qualifying low-income students. EOPS is composed of a group of professionals ready to assist you with the resolution of both academic and personal issues. Our staff is set up to understand the problems of our culturally diverse population and strives to meet student needs that are as diverse as our student population.

Also, under the umbrella of EOPS our CARE (Cooperative Agency Resources for Education) Program for single parents is specifically designed to provide support services and assist with the resolution of issues that are particular to this population. Students that are single parents receiving TANF/Cash Aid assistance may qualify for our CARE program, for additional information on CARE please contact Lourdes Mercado, 760-355- 6448, lourdes.mercado@imperial.edu.

EOPS provides additional support and services that may identify with one of the following experiences:

• Current and former foster youth students that were in the foster care system at any point in their lives

• Students experiencing homelessness

• Formerly incarcerated students

To apply for EOPS and for additional information on EOPS services, please contact Alexis Ayala, 760-355-5713, alexis.ayala@imperial.edu.

Student Equity Program

•The Student Equity Program strives to improve Imperial Valley College's success outcomes, particularly for students who have been historically underrepresented and underserved. The college identifies strategies to monitor and address equity issues, making efforts to mitigate any disproportionate impact on student success and achievement. Our institutional data provides insight surrounding student populations who historically, are not fully represented. Student Equity addresses disparities and/or disproportionate impact in student success across disaggregated student equity groups including gender, ethnicity, disability status, financial need, Veterans, foster youth, homelessness, and formerly incarcerated students. The Student Equity Program provides direct supportive services to empower students experiencing insecurities related to food, housing, transportation, textbooks, and shower access. We recognize that students who struggle meeting their basic needs are also at an academic and economic disadvantage, creating barriers to academic success and wellness. We strive to remove barriers that affect IVC students' access to education, degree and certificate completion, successful completion of developmental math and English courses, and the ability to transfer to a university. Contact: 760.355.5736 or 760.355.5733 Building 100.

• The Student Equity Program also houses IVC's Homeless Liaison, who provides direct services, campus, and community referrals to students experiencing homelessness as defined by the McKinney-Vento Act. Contact: 760.355.5736 Building 100.

Students Rights and Responsibility

Students have the right to experience a positive learning environment and to due process of law. For more information regarding student rights and responsibilities, please refer to the IVC General Catalog.

Information Literacy

Imperial Valley College is dedicated to helping students skillfully discover, evaluate, and use information from all sources. The IVC Library Department provides numerous Information Literacy Tutorials to assist students in this endeavor.

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IVC Student Resources

IVC wants you to be successful in all aspects of your education. For help, resources, services, and an explanation of policies, visit http://www.imperial.edu/studentresources or click the heart icon in Canvas.

Anticipated Class Schedule/Calendar

		TOPICS	READINGS
2/13-2/15	Week 1	Introduction to statistics	Ch. 1
2/20-2/22	Week 2	Introduction to statistics (*No Class 2/20*)	Ch. 1
2/27-3/1	Week 3	Frequency distributions	Ch. 2
3/6-3/8	Week 4	Measures of central tendency	Ch. 3
3/13-3/15	Week 5	Measures of variability	Ch. 4
3/20-3/22	Week 6	z-Scores/Probability	Ch. 5,6
3/27-3/29	Week 7	Probability /Probability and Samples	Ch. 6, 7
4/3-4/5	Week 8	**MIDTERM EXAM** (approximate) (Midterm on 4/5) **On Chapters 1-7**	
		Spring Recess (4/10 – 4/15 Campus Closed)	
4/17-4/19	Week 10	Introduction to hypothesis testing	Ch. 8
4/24-4/26	Week 11	Introduction to the *t* statistic	Ch. 9
5/01-5/03	Week 12	The *t* test for two independent samples	Ch. 10
5/08-5/10	Week 13	The *t* test for two related samples	Ch. 11
5/15-5/17	Week 14	The *t* test for two related samples	Ch. 11
5/22-5/24	Week 15	Introduction to analysis of variance	Ch. 12
5/29-5/31	Week 16	Two-Factor of ANOVA/correlation and regression (*No Class 5/29*)	Ch. 13, 14
6/5-6/07	Week 17	The Chi-Square Statistic	Ch. 15

FINAL EXAM Last day of Class on 6/7 On **Chapters 8-15**

This May change in case of Emergency

*****Subject to change without prior notice*****