

Quantitative Methods for Public Management

2023 Spring Semester Session 2

Instructor: Soomi Lee, Ph.D.

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Office hours: Thursdays after class or by appointment (via phone, Zoom, etc.)

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Office hours: TBD

Course Meetings

- Online synchronous meeting: Thursdays 6:00 PM – 9:30 PM.
- Online asynchronous session: Any time after synchronous meetings, 1.5 hours.

Course Structure

Regular class sessions will be held on Zoom synchronously between 6:00 PM and 9:30 PM with a 15-minute break on the scheduled class day. Asynchronous online sessions will be held for 1 hour and 30 minutes anytime between the end of the synchronous sessions and the day before the next synchronous sessions, unless instructed otherwise.

Course Description

This course is designed for you to develop practical skills in data analysis using Microsoft Excel and Analysis Toolpak. It covers descriptive statistics, probability, hypothesis testing, and correlation analysis.

Learning Objectives and Assessed Outcomes

At the completion of the course, you will be able to apply statistical reasoning to solve problems in public administration and policy and understand the role of statistics in research, its underlying assumptions, and its major strengths and weaknesses.

Assessed Outcomes

Your learning outcomes will be assessed based on their ability to:

1. Summarize and describe quantitative information in several different forms;
2. Understand, perform, present, and interpret inferential statistics;
3. Apply statistics to public policy/administration analysis.

Specifically, you will be able to:

1. Understand concepts of descriptive statistics and apply them to real-world data;
2. Create effective graphs and tables in Excel, identify patterns, provide insights;
3. Produce professionally written reports using an array of descriptive statistics;
4. Comprehend the hypothesis testing and estimation process;
5. Conduct correlation analysis in Excel and interpret results;
6. Gain a foundation of statistical knowledge that will apply to advanced quantitative method courses in the future.

Textbook and Software Access Requirement

- Neil J. Salkind. 2017. *Statistics for People Who (They Think) Hate Statistics*. Excel 2016 edition, 4th ed. Los Angeles: Sage Publication. Student Resources available online. <https://edge.sagepub.com/node/32406/student-resources>
- You may find the videos, quizzes, flashcards, and other resources on the website useful.
- My weekly lecture notes will be available a week before each class.
- Additional readings and materials may be posted on Blackboard.
- You will need access to **Microsoft Excel (required)**, MS Word, a PDF reader, and the Internet for Zoom meetings and Blackboard access.
- Blackboard access is required. For technical assistance or a Blackboard access problem, please contact help@laverne.edu.

Class Participation and Attendance Policy

Attendance is mandatory for all classes, and I request that you keep your video on during the session. Synchronous sessions are necessary to learn the material and to succeed in this class. We will do hands-on in-class data analysis exercises throughout the course. Absence, therefore, will negatively affect your learning and course grade. Absence without a notice in advance will result in a penalty on your grade. The instructor reserves the right to treat two absences as a withdrawal from the course.

Course Requirements

1. Weekly quiz (6 weeks, 10% each, 60% in total)
 - Each week, self-assessment quiz will be posted during the asynchronous session.
 - You need to take the quiz. You can take it multiple times until you get it all.
 - We will address any question about the quizzes during synchronous sessions.
 - Quiz questions will be similar to those on the final exam. So, they will prepare you to do well on your final exam.
2. Final Exam (30%)
 - The final exam will be a 24-hour open-book take-home exam on the last day of class.
 - The exam covers materials from Week 1 through Week 7.
 - Questions will be similar to quiz questions. Thus, working on your weekly quiz and attending synchronous class sessions will prepare you for the final exam.
 - You are allowed to use the textbook, lecture notes, and any resources during the exam.
 - You are not allowed to communicate with anyone about the exam except me.
 - Submission: a completed exam as a MS Word file via Blackboard.

3. Participation (10%)

- Attendance is mandatory. If a student misses a session without a valid excuse and appropriate documentation, they will incur a 10% deduction in their participation credit.
- Students are expected to keep their video on during synchronous sessions.
- In the first week, students are required to write a short bio (200 words) about themselves and post it on Blackboard by the deadline.

Grading Policy

“The grading policy for graduate students is based on the assumption that the grade for acceptable and satisfactory performance in graduate study is B (3.0). This implies that graduate students must perform at an above-average level, compared to undergraduate students, in order to progress satisfactorily in graduate programs. It also implies that grades of C- and D are unacceptable in graduate work; therefore, there are no C- or D grades for graduate students.”

A (94-100); A- (90-93); B+ (87-89); B (84-86); B- (80-83); C+ (76-79); C (71-75); Fail (70 or below)

Letter Grade	Grade Point	Description
A	4.0	Demonstrates insightful mastery of the subject matter and exceptional quality in written and oral communication.
B	3.0	Exhibit professional competence in the subject matter and in all written and oral communication.
C	2.0	Completes course assignments and requirements with minimally acceptable proficiency in written and oral communication.
F	0.0	Quality and quantity of work in and out of class are unacceptable.

Incomplete Grade Policy

Incompletes are authorized only when (1) it is impossible for the students to complete the course because of illness or other justifiable cause AND (2) the student completed at least 60% of course requirements (homework assignments, take-home midterm examination, and final paper). If a student is not able to complete 60% of the requirements, s/he cannot request an incomplete and shall retake the course.

University Policy on Academic Honesty (from the University Catalog)

“Each student is responsible for performing academic tasks in such a way that honesty is not in question. Unless an instructor specifically defines an exception, students are expected to maintain the following standards of integrity:

1. All tests, term papers, oral and written assignments and recitations are to be the work of the student presenting the material.
2. Any use of wording, ideas, or findings of other persons, writers, or researchers requires the explicit citation of the source; use of the exact wording requires a “quotation” format.
3. Deliberately supplying material to students for purposes of plagiarism is considered a violation of academic honesty.

A faculty member who has proof that academic honesty has been violated may take appropriate disciplinary action, including the refusal of course credit. If a faculty member has reason to suspect academic dishonesty but is unable to prove it, he or she may require additional or/and revised work from the students.”

Mission of the Masters in Public Administration at University of La Verne

The mission of the University of La Verne's Master of Public Administration program is to offer an innovative and practical curriculum that stresses intellectual and theoretical foundations for professionals preparing to take on socially responsible roles in public leadership and service.

MPA Mission-Specific Competency Areas

The mission will be achieved through a curriculum that emphasizes:

1. The management of organizational resources
2. The changing context (contextual nature) of public administration
3. Analytic and decision-making capacity
4. The practice of public administration in diverse public organizations
5. The ethical dimensions of public service

NASPAA Competencies (2019):

The National Association of Schools of Public Affairs and Administration (NASPAA) universal competencies are framed within the La Verne MPA mission and the above areas of emphasis.

These competencies include the following:

1. To lead and manage in the public interest
2. To participate in, and contribute to, the policy process
3. To analyze, synthesize, think critically, solve problems and make evidence-informed decisions in a complex and dynamic environment
4. To articulate, apply, and advance a public service perspective
5. To communicate and interact productively and in culturally responsive ways with a diverse and changing workforce and society at large.

University Vision, Mission, and Core Values Statements

The University of La Verne will be nationally recognized for its enriching and relevant educational experience, which prepares students to achieve more than they ever imagined.

University Mission

The University of La Verne offers a distinctive and relevant educational experience to a diverse population of traditional-age, adult, and graduate learners, preparing them for successful careers and a commitment to life-long learning across the liberal arts and professional programs.

Core Values of the University of La Verne

- **Ethical Reasoning:** The university affirms a value system that actively supports peace with justice, respect of individuals and humanity, and the health of the planet and its people. Students are reflective about personal, professional, and societal values that support professional and social responsibility.
- **Diversity and Inclusivity:** The university supports a diverse and inclusive environment where students recognize and benefit from the life experiences and viewpoints of other students, faculty, and staff.
- **Lifelong Learning:** The University promotes intellectual curiosity and the importance of lifelong learning. It teaches students how to learn, to think critically, to be capable of original research, and to access and integrate information to prepare them for continued personal and professional growth.

- Civic and Community Engagement: The university asserts a commitment to improving and enhancing local, regional, and global communities.

University Diversity Statement

The University supports a diverse and inclusive environment where students recognize and benefit from the life experiences and viewpoints of other students, faculty, and staff. Diversity is an active and intentional practice that supports difference and multiplicity to expand knowledge, educate capable citizens, develop the whole person, and serve our local and global communities. Promoting and sustaining diversity is a commitment to educational quality and the creation of positive, respectful learning communities.

Link to Social Justice Incident Report Form

If at any time during this course you witness or experience discrimination or injustice, we encourage you encouraged to report the incident through the [Social Justice Incident Report Form](#) available to all University of La Verne community members.

Accessibility Statement

University policies concerning students with disabilities are available through the Accessibility Services. Students may speak privately with the instructor for assistance contacting the Director of Accessibility Services. If you have other requirements and wish to discuss non-disability related academic accommodations, please contact the instructor as soon as possible. Contact information for Accessibility Services may be found at [Accessibility Services](#) or by calling 909.448.4938.

Title IX Statement

Federal obligations, faculty, and other employees are considered mandated reporters when it comes to experiences of interpersonal violence (sexual assault, sexual harassment, dating or domestic violence, and stalking). Disclosures of such must be passed along to the University's Title IX Manager who can help provide support, remedies, and resources for individuals who have been impacted. More information can be found online at <https://laverne.edu/title-ix/> or title9manager@laverne.edu or 909-448-4078.

List of University Resources

- [Campus Emergency Status](#)
- [ULV Covid-19 information](#)
- [Counseling and Psychological Services](#)
- [Student Health Services](#)
- [Office of Campus Safety](#)
- [Academic Success Center](#)
- [ACS Student Resource Portal - Research](#)
- [Center for Neurodiversity, Learning, and Wellness](#)
- [Interfaith Calendar](#)

Disclaimer

I may need to make corrections, changes, or other alterations to the syllabus, course requirements, and other elements contained in this syllabus. Such changes will be communicated

to you either in a regular class session or other appropriate means (e.g., via email or Blackboard). All matters related to student rights and responsibilities, as outlined in the ULV Catalog, are adopted here.

Weekly Class Schedule

Synchronous Online Session

Week 1. April 6. Overview: Basics

- **Learning objectives:** understand the difference between (1) descriptive statistics and inferential statistics, (2) population and sample, and (3) parameter and statistics.
- Reading: Chapter 1 & 6

Variables and Measurements

- **Learning objectives:** (1) understand nominal and operational definitions, (2) measurement scales, (3) validity and reliability.
- In class group exercise: (1) identify measurement scales, (2) come up with ways to quantify concepts, identify the scale of measurements.

Reading: Chapter 6.

Asynchronous Online Session

Week 1. between April 6 and April 13

- Browse the Blackboard site to get familiar with it.
- Post a self-bio on the Blackboard Discussion Board.
- Go to Week 1 > Online Session for further instructions.
- Quiz 1.

Week 2. April 13. Descriptive Statistics I - Summary Statistics

- **Learning objectives:** (1) understand summary statistics, (2) explain definitions and properties of central tendency, and (3) describe definitions and properties of variability.
- Reading: Chapters 2 and 3.

Week 2. between April 13 and April 20.

- Go to Week 2 > Online Session for further instructions.
 - Quiz 2.
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Week 3. April 20. Descriptive Statistics II - Data Visualization

- **Learning objectives:** (1) describe types of graphs and their properties, (2) create frequency tables and graphs in Excel, (3) identify patterns and explain them in narratives.
- Reading: Chapter 4.

Week 3. between April 20 and April 27.

- Go to Week 3 > Online Session for further instructions.
- Quiz 3.

Week 4. April 27. Probability and the Normal Distribution

- **Learning objectives:** (1) understand probability distribution, (2) describe properties of the normal distribution, (3) understand and compute z scores, and (4) apply the normal distribution to public administration and policy problems.
- Reading: Chapter 8.

Week 4. between April 27 and May 4.

- Go to Week 4 > Online Session for further instructions.
- Quiz 4.

Week 5. May 4. Hypothesis & Hypothesis Testing

- **Learning objectives:** (1) state the null and research hypotheses, (2) describe hypothesis testing, (3) elaborate the sampling distribution, (4) explain how to determine statistical significance.
- Reading: Chapters 7 and 9.

Week 5. between May 4 and May 11.

- Go to Week 5 > Online Session for further instructions.
- Quiz 5.

Week 6. May 11. Correlation Analysis

- **Learning objectives:** (1) comprehend the concept of covariance and correlation, (2) compute correlation coefficients in Excel, (3) interpret correlation coefficients, (4) create a scatterplot, and (5) hypothesis testing for correlation coefficients.
- Reading: Chapter 15.

Week 6. between May 11 and May 18.

- Go to Week 6 > Online Session for further instructions.
- Quiz 6.

Week 7. May 18. T test

- **Learning objectives:** (1) compare two groups with an independent t test and (2) compare the same group under two different conditions with a dependent t test.
- Readings: Salkind, Chs. 11 - 12;
Sorensen, Elaine. 2011. "New York Initiative Helps Fathers increase earnings and Child Support Payments." Income and Benefits Policy Center, Urban Institute, Washington D.C.

Week 7. Final exam review session

**Week 8. May 25.
Final Exam**
