Syllabus for PADM 596: Research Methods for Public Managers
Spring 2017

Instructor: Nicholas Edwardson, PhD, MS
Email: nedwardson@unm.edu
Office: 3042 Social Science Bldg
Office Hours: Thursdays, 4-6 PM
Class: Thursdays, 7-9:30 PM
Cell: 505-926-1595

"In God we trust. All others bring data"

-W. Edwards Deming

Course Description

Statistical methods for description and analysis provide healthcare administrators with useful tools for making sense from data. The pervasiveness of statistics in healthcare administration has led to increased recognition that statistical literacy—a familiarity with the goals and methods of statistics—should be a basic component of a well-rounded educational program. In this course, students will develop a statistical vocabulary, learn methods for descriptive data analysis, study the fundamentals of probability and sampling distributions, learn methods for statistical inference and hypothesis testing based on one or two samples, and become familiar with categorical data analysis and linear regression.

Course Expectations

The success of this course relies heavily upon how engaged participants are in the components of the course. The role of the instructor is to facilitate and guide learning through class discussions, activities, and feedback. The course favors an active role for participants over the more passive role taken in a lecture-oriented format. Be prepared to engage the course material and each other to draw on assigned readings and your experiences working and interacting with healthcare organizations. We will work from the premise that all participants bring important knowledge, skills, experiences and

insights to the course that we can draw upon to create a successful collaborative learning experience.

Course Objectives
Students will be able to do the following at the conclusion of the course:

1. Learn a defined process for analyzing a set of health care related data
2. Analyze health organizational performance using different quality measures and tools
3. Identify key external health organization quality evaluations
4. Assess appropriate performance measures for health organizations
5. Discover how to answer strategic or operational questions using basic analytic techniques
6. Understand how to read, produce, and present data analytic reports

Required Text
No textbook

Course Requirements and Grading Policy
The final course grade is based on your performance on five problem sets and one final, take-home exam. Student grades will be based on:

Problem Sets:	75 points
Final Exam:	25 points
Total:	**100 points**

Problem Sets: One of the best ways to learn the quantitative tools discussed in this course is through practice. The problem sets are intended to develop your mastery of the concepts and tools presented in the course. Each problem set will be based on material drawn from the course textbook and other sources. Each problem set is due the day of class by 6:89 p.m. Problem sets will be made available on UNM Learn at least 7 calendar days prior to their due date.

Exams: The final exam is worth 25 points. It will involve taking a large, raw data file and producing a series of reports and control charts.

Grading Scale:
A+: 99 – 100%
A: 93 – 98%
A-: 90 – 92%
B+: 87 – 89%
B: 83 – 86%

B-: 80 – 82%
C+: 75 – 79%
C: 70 – 74%
C-: 65 – 69%
Fail: Below 65%

Attendance Policy
Regular and punctual attendance is required. UNM Pathfinder policies apply, which in part means instructor drops based on non-attendance are possible. This policy applies regardless of the grading option you have chosen.

Accommodation Statement
Accessibility Services (Mesa Vista Hall 2021, 277-3506) provides academic support to students who have disabilities. If you think you need alternative accessible formats for undertaking and completing coursework, you should contact this service right away to assure your needs are met in a timely manner. If you need local assistance in contacting Accessibility Services, see the Bachelor and Graduate Programs office.

Academic Integrity
The University of New Mexico believes that academic honesty is a foundation principle for personal and academic development. All University policies regarding academic honesty apply to this course. Academic dishonesty includes, but is not limited to, cheating or copying, plagiarism (claiming credit for the words or works of another from any type of source such as print, Internet or electronic database, or failing to cite the source), fabricating information or citations, facilitating acts of academic dishonesty by others, having unauthorized possession of examinations, submitting work of another person or work previously used without informing the instructor, or tampering with the academic work of other students. The University's full statement on academic honesty and the consequences for failure to comply is available in the college catalog and in the Pathfinder.

Cell Phones and Technology
As a matter of courtesy, please turn off cell phones, pagers (LOL), and other communication and entertainment devices prior to the beginning of class. Notify me in advance if you are monitoring an emergency, for which cell phone ringers should be switched to vibrate.

Library and Tutorial Services
UNM-Main campus provides many library services and some tutorial services for distance students. For library services, go to http://www.unm.edu/libraries/ to link to a specific library or to contact a librarian. For tutorial services, go to http://caps.unm.edu/onlineto explore UNM's online services.

Schedule of Activities*

Week	Date	Topic	Activities
Week 1	19-Jan	Introduction to HA	
Week 2	26-Jan	Working with Data / Excel Primer	
Week 3	2-Feb	The Ugly Side of Data	
Week 4	9-Feb	Data Display: Descriptive Presentation	
Week 5	16-Feb	No Class	
Week 6	23-Feb	Leveraging Analytics in Quality Improvement	Problem set 1 due
Week 7	2-Mar	Using Probability in Healthcare Analytics	
Week 8	9-Mar	Using Probability in Healthcare Analytics	Problem set 2 due
Week 9	16-Mar	Spring Break - No Class	
Week 10	23-Mar	Working with Various Data Distributions	Problem set 3 due
Week 11	30-Mar	Confidence Limits, Hypothesis Testing, & Testing Categorical Data	
Week 12	6-Apr	Confidence Limits, Hypothesis Testing, & Testing Categorical Data	Problem set 4 due
Week 13	13-Apr	t-Tests & ANOVA	
Week 14	20-Apr	Simple Linear Regression	Problem set 5 due
Week 15	27-Apr	Control Charts	
Week 16	4-May	Control Charts	
Week 17	11-May	Final	Take-home final due

**The Schedule of Activities is subject to change. Minor changes will be announced in class, major ones provided in writing.*