PUAD 6605: QUANTITATIVE TECHNIQUES

Dr. Keith Lee

A & S 2-09
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Office Hours:
Tuesday & Thursday
9:00 - 10:30 am; 1:00 - 2:00 pm
or by appointment.

Course Description:

This course provides an overview of statistical methods and hands-on application to managerial decision-making in public administration. Understanding statistical analysis and being able to work with data are important competencies of professionalism in public administration. Course topics include program evaluation, data collection and measurement in public administration, descriptive statistics, hypothesis testing, processes for selecting statistical tests and assessment of statistical assumptions, measures of association and other bivariate statistics, index variable construction, regression analysis, and an overview of selected other statistical and quantitative methods applied to problems of public administration. Students get hands-on experience through the use of SPSS. Recognizing the social, political, and economic context of data collection, analysis, and reporting practices in the public sector, this course also discusses the ethics of data analysis.

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Required Textbook: Nishishiba, Masami, Matthew Jones, and Mariah Kraner. 2014. *Research Methods and Statistics for Public and Nonprofit Administrators.*

Required Software: IBM SPSS Statistics Standard GradPack 24
Available at http://www.onthehub.com/spss/ for $54.99 (6 month rental price)

Note: You will not need this software until Week 7, though you may want to purchase it a few weeks early just to make sure it runs on your computer. Also note that some colleges have site licenses for free access to faculty/staff so contact your IT department before purchase.

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Supplemental Readings: There will be readings assigned to supplement the textbook. These readings will be journal articles or scanned book chapters. I will post these readings to GeorgiaVIEW and let you know when they become available.

Governing Magazine:
I strongly encourage students to subscribe to Governing magazine [link]. The subscription is free and is offered in print or digital format. You can also subscribe to various email newsletters based on your specific interests.

Learning Outcomes: Students enrolled in Georgia College's MPA program are expected to show competency in several areas by the time they graduate. Therefore, a set of Student Learning Outcomes (SLOs) that relate to (and in some cases enhance) NASPAA Universal Competencies were established for students in the program. The SLOs and NASPAA Universal Competencies are listed below. Those highlighted represent the outcomes and competencies students are required to meet in order to succeed in this course.

- Student Learning Outcomes:

  1. To demonstrate an understanding of challenges and constraints relevant to governance and external factors

  2. To participate in the policy process, communicate policy alternatives, and work effectively with government, nonprofit institutions, corporations, and community stakeholders

  3. **To define, frame, think critically about and analyze important problems**

  4. **To utilize analytical tools to analyze, present, and interpret data, including appropriate design, statistical, and evaluative techniques for both organization decision making and policy decisions**

  5. To identify public service values and to then systematically apply these values to identify appropriate course of action

  6. To communicate effectively and professionally to diverse audience

- NASPAA Universal Competencies

  1. To lead and manage in public governance (demonstrate an understanding of challenges and constraints relevant to governance and external factors).

  2. To participate in and contribute to the policy process (demonstrate an ability to participate in the policy process, communicate policy alternatives, and work effectively with government, non-profit institutions, corporations, and community stakeholders).

  3. **To analyze, synthesize, think critically, solve problems, and make decisions (1. demonstrate an ability to define, frame, think critically about, and analyze important problems; 2. demonstrate an ability to utilize analytical tools to analyze, present, and interpret data, including appropriate design, statistical, and evaluative techniques for both organization decision making and policy decision).**

  4. To articulate and apply public values perspective (demonstrates an ability to identify public service values and to then systematically apply these values to identify appropriate course of action).

  5. To communicate and interact productively with a diverse and changing workforce and citizenry (demonstrates an ability to communicate effectively and professionally to diverse audiences).

Course Requirements:

- **Case Study**: You will draft a case study on your career choice and explore how quantitative data analysis can be used in your field of work. You can either choose your current career or the career you hope to move into once you finish your MPA degree. The report should be 750 - 1000 words. The case study will be due September 10 at 9 pm.

- **Review/Discussion Questions and Exercises**: You are to complete the review questions at the end of each chapter. Most chapters only have a section titled "Review and Discussion Section." However, chapters 7 and 9 have an section called "Statistics Exercise" and "Exercises," respectively. You'll need to complete these sections as well. Chapters 10 - 15 have a section titled "Review and Discussion Questions and Exercises" that combine the sections. The due date for each set is in the course calendar below.

- **Research Design**: You will be responsible for completing an independent, original research paper design that utilizes multivariate regression. The paper will include the following sections: literature review, hypothesis, methods, and how you will collect the data. The paper will be no more than 12 pages not including references and appendices to be turned in by 5 pm on December 12. Each student will submit a research proposal no later than 9 pm on October 15.

Grade Distribution:

Case Study	10 %
Review Questions	50 %
Research Proposal	10 %
Research Paper	30 %
Total	100 %

Letter Grade Distribution:

>= 90	A
80 - 89	B
70 - 79	C
60 - 69	D
<= 60	F

Course Policies:

- **Office Hours and Contact:** Office hours are stated on the front page of the syllabus. I will be in my office to assist students during the times listed UNLESS an emergency arises in which case I will send out a message via GeorgiaVIEW. As this is an online class and many of you are not in the area so I am also able to meet by

appointment via phone or WebEx. Students should contact me via GeorgiaVIEW for all course related issues. However, you should use the email address on the front page of the syllabus to contact me regarding other matters, e.g., letter of recommendation, future course offerings, research opportunities, etc.

- **Late Policy:** No assignments will be accepted after the due date. Every assignment will be posted with ample time to complete them, thus a medical/family emergency on the due date is not an acceptable excuse. Get your work done early and you should not have any issues.

- **Attendance and Absences:** There is not an attendance policy for this course, however it is the absentee's responsibility to watch all recorded WebEx recordings.

Georgia College Policies

- Please read: http://intranet.gcsu.edu/common-syllabus-statements

Course Outline:

Week 1: When a Practitioner Becomes a Researcher

Date: 8/21 - 8/27
Reading: Chapter 1
Review Questions Due: 8/27 by 9 pm
WebEx Discussion Session: 8/28 at 7 pm

Week 2: Research Alignment

Date: 8/28 - 9/4
Reading: Chapter 2
Review Questions Due: 9/4 by 9 pm
WebEx Discussion Session: None due to Labor Day

Week 3: Identifying the Focus of Research: Research Objective and Research Question

Reminder: Case Study Due Sunday 9/10 by 9 pm
Date: 9/5 - 9/10
Reading: Chapter 3
Review Questions Due: 9/10 by 9 pm
WebEx Discussion Session: 9/11 at 7 pm
Supplemental Reading (Required): Knopf, Jeffrey W. 2006. "Doing a Literature Review." *PS-Political Science & Politics*39 (1, January): 127-132. [Posted in GeorgiaVIEW]

Week 4: Research Design

Date: 9/11 - 9/17
Reading: Chapter 4
Review Questions Due: 9/17 by 9 pm
WebEx Discussion Session: 9/18 at 7 pm
Supplemental Reading (Required): Herd, Pamela, Thomas DeLeire, Hope Harvey, and Donald P. Moynihan. 2013. "Shifting Administrative Burden to the State: The Case of Medicaid Take-Up" *Public Administration Review* 73(S1):S69-S81 [Posted in GeorgiaVIEW]

Week 5: Sample Selection

Date: 9/18 - 9/24
Reading: Chapter 5
Review Questions Due: 9/24 by 9 pm
WebEx Discussion Session: 9/25 at 7 pm
Supplemental Reading (Required): McDonald III, Bruce D. 2015. "Does the Charter Form Improve the Fiscal Health of Counties?" *Public Administration Review* 75(4):609-618 [Posted in GeorgiaVIEW]

Week 6: Data Collection

Reminder: Research Proposal Due Sunday 10/1 by 9 pm
Date: 9/25 - 10/1
Reading: Chapter 6
Review Questions Due: 10/1 by 9 pm
WebEx Discussion Session: 10/2 at 7 pm

Week 7: Quantitative Data Preparation and Descriptive Statistics

Date: 10/9 - 10/15
Reading: Chapter 7
Review Questions Due: 10/15 by 9 pm
WebEx Discussion Session: 10/16 at 7 pm

Week 8: Hypothesis Testing and Statistical Significance: Logic of Inferential Statistics

Date: 10/16 - 10/22
Reading: Chapter 8
Review Questions Due: 10/22 by 9 pm
WebEx Discussion Session: 10/23 at 7 pm

Week 9: Comparing Means Between Two Groups

Date: 10/23 - 10/29
Reading: Chapter 9
Review Questions Due: 10/29 by 9 pm
WebEx Discussion Session: 10/30 by 7 pm

Week 10: Comparing Means of More Than Two Groups: Analysis of Variance (ANOVA)

Date: 10/30 - 11/5
Reading: Chapter 10
Review Questions Due: 11/5 by 9 pm
WebEx Discussion Session: 11/6 at 7 pm

Week 11: Bivariate Correlation

Date: 11/6 - 11/12
Reading: Chapter 11
Review Questions Due: 11/12 by 9 pm
WebEx Discussion Session: 11/13 at 7 pm

Week 12: Chi-Square Analysis

Date: 11/13 - 11/19
Reading: Chapter 12
Review Questions Due: 11/19 by 9 pm
WebEx Discussion Session: 11/20 at 7 pm

Week 13: Regression Analysis

Date: 11/20 - 11/26
Reading: Chapter 13
Review Questions Due: 11/26 by 9 pm
WebEx Discussion Session: 11/27 at 7 pm

Week 14: Qualitative Data Analysis

Date: 11/27 - 12/3
Reading: Chapter 14
Review Questions Due: 12/3 by 9 pm
WebEx Discussion Session: 12/4 at 7 pm

Week 15: Writing Reports

Reminder: Final Paper Due Tuesday 12/12 by 5 pm
Date: 12/4 - 12/10
Reading: Chapter 15
WebEx Discussion Session: 12/11 at 7 pm