

PUAD 6605: Quantitative Techniques

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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.

Course Requirments

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

Required Software: IBM SPSS Statistics Standard GradPack 25

Available at <http://www.onthehub.com/spss/> for \$58.99 (6 month rental price)

Note: You will not need this software until Week 7, though you may want to purchase it 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.

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.

Finally, I strongly encourage students to subscribe to [Governing magazine](#). The subscription is free and is offered in print or digital format.

Course Objectives

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 will be assessed on and are required to meet in order to succeed in this course.

Student Learning Outcomes:

1. Demonstrate an understanding of challenges and constraints relevant to governance and external factors.
2. Demonstrate an ability to participate in the policy process, communicate policy alternatives, and work effectively with government, nonprofit institutions, corporations, and community stakeholders.
3. Demonstrate an ability to define, frame, think critically about and analyze important problems.
4. *Demonstrates 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 decisions.*
5. Demonstrates an ability to identify public service values and to then systematically apply these values to identify appropriate course of action.
6. Demonstrates an ability 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 (a. demonstrate an ability to define, frame, think critically about, and analyze important problems; b. 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 Assignments

Case Study (Due Sept 16 by 9:00 pm): 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.

Review/Discussion Questions and Exercises (Due dates vary; see calendar below): You are to complete the review questions at the end of each chapter. The due date and list of questions to be answered for each set is in the course calendar below. Homework for chs. 1-6 are worth 2 points each; homework for chs. 7-13 are worth 3 points each.

Research Design (Due December 9 by 9:00 pm): You must draft an original, complete research design on a topic of your choice with approval of the professor. You can use this project in the future for an independent research paper or for a capstone level project. *Original* means it cannot be something you have used or are currently using in another course. *Complete* means it has the following components:

1. Introduction
2. Literature Review
3. Research Question
4. Hypothesis
5. Methodology/Design

The paper should be no more than 15 pages using standard formatting (12-point font, double spacing, 1" margins, etc.). You should follow the style guidelines in the Chicago Manual of Style, 16th edition, using the [Author-Date method of citing and referencing](#).

Grading

Assignment	Value	Letter Grade	Range
Research Design	50%	A	90-100%
Homework Problems	40%	B	80-89.999%
Case Study	10%	C	70-79.999%
	—	D	60-69.999%
Total	100%	F	0-59.999%

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 notify students. 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 can contact me via email (keith.lee@gcsu.edu) or GeorgiaView, though email is preferred.
- **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 student's responsibility to watch all recorded WebEx recordings they miss.
- **Academic dishonesty:** Cheating, either on the exam or in the form of plagiarism, will not be tolerated and will result in an "F" in the course and a recommendation to the MPA coordinator that you be dismissed from the program. This class will use plagiarism detection via GeorgiaView.
- Please read these additional [common syllabus statements](#) provided by Georgia College.

Class Schedule

Week 01, 08/20 - 08/26: Course Introduction

- WebEx Session 08/23 at 7:00 pm to Discuss Syllabus & Case Study

Week 02, 08/27 - 09/02: Becoming a Researcher

- Homework Ch 1 due 09/02 at 9:00 pm
- Answer questions #1-5

Week 03, 09/03 - 09/09: Research Alignment

- Homework Ch 2 due 09/09 at 9:00 pm
- Answer question #1

Week 04, 09/10 - 09/16: Research Objective and Question

- Homework Ch 3 due 09/16 at 9:00 pm
- Answer questions #1, 2, 5-8
- Case Study due 09/16 at 9:00 pm

Week 05, 09/17 - 09/23: Research Design

- Homework Ch 4 due 09/23 at 9:00 pm
- Answer questions #1-6

Week 06, 09/24 - 09/30: Sample Selection

- Homework Ch 5 due 09/30 at 9:00 pm
- Answer questions #1-5

Week 07, 10/01 - 10/07: Data Analysis

- Homework Ch 6 due 10/07 at 9:00 pm
- Answer questions #1-3, 5, 7

Week 08, 10/08 - 10/14: Descriptive Statistics

- WebEx Session 10/11 to discuss SPSS
- Homework Ch 7 due 10/14 at 9:00 pm
- Answer review and discussion questions #1-4
- Answer statistic exercises Emily's data a-f and Jim's data a-c

Week 09, 10/15 - 10/21: Hypothesis Testing

- Homework Ch 8 due 10/21 at 9:00 pm
- Answer questions #1-6

Week 10, 10/22 - 10/28: Comparing Means

- Homework Ch 9 due 10/28 at 9:00 pm
- Answer review and discussion questions #1, 2, 4
- Answer exercises questions #1-3

Week 11, 10/29 - 11/04: Bivariate Correlation

- Homework Ch 11 due 11/04 at 9:00 pm
- Answer questions #1-4

Week 12, 11/05 - 11/11: Chi-Square Analysis

- Homework Ch 12 due 11/11 at 9:00 pm
- Answer questions #1-6

Week 13, 11/12 - 11/18: Regression Analysis

- WebEx Session 11/15 to discuss research design assignment
- Homework Ch 13 due 11/18 at 9:00 pm
- Answer questions #1, 2, 4, 7

Week 14, 11/19 - 11/25: Qualitative Data Analysis

- Homework Ch 14 due 11/25 at 9:00 pm
- Answer questions #1-3

Week 15, 11/26 - 12/02: Writing Reports

- No Homework

Week 16, 12/03 - 12/09: Final Week

- Research Design due 12/09 at 9:00 pm