



Valdosta State University

Department of Political Science

Master of Public Administration Program

PADM 7060 Quantitative Methods for Public Administration

Spring 2006 at [Moody Air Force Base](#)

- Description:** The application of quantitative methods to problems faced by the public administration practitioners. Topics include regression analysis and the use of probability theory as they apply to decision making in public management.
- Texts:**
1. Meier, K. J., Brudney, J. L. & Bohte, J. (2006). *Applied statistics for public and nonprofit administration, (6th ed.)*. Belmont, CA.: Wadsworth Group/Thomson Learning.
 2. LeRoy, M. K., & Corbett, M. (2006). *Research Methods in political science (6th ed.)*. Belmont, CA: Wadsworth.
- Instructor:** Gerald A. "Jerry" Merwin Jr., Ph.D. <gamerwin@valdosta.edu> ([Link to contact information.](#))
- Web Site:** <http://www.valdosta.edu/mpa/classes/padm7060/>
- Office Hours:** Wednesdays of class meeting weeks: 3:00-5:30 p.m. (West Hall) Other appointment times by arrangement directly with the instructor. I will also meet with students at Moody Air Force Base if needed.

Expected Outcomes: Participants will demonstrate the following:

1. Describe the role of quantitative methods in public management.
2. Differentiate between levels of measurement and measures of central tendency, noting when a given level of measurement/measure of central tendency is appropriate.
3. Enter data for computer analysis.
4. Analyze data using contingency tables and regression analysis, including controlling for variables.
5. Determine when a particular statistical technique is appropriate given the data and problem under consideration.

ADA: Valdosta State University complies fully with the requirements of the Americans with Disabilities Act (ADA). Students requesting classroom accommodations or modifications because of a documented disability must contact the Access Office for Students with Disabilities located in room 1115 Nevins Hall. The phone numbers are 245-2498 (voice) and 219-1348 (tty). Learn more on the VSU web site at: <http://www.valdosta.edu/ssp/> You may also reach them via email at access@valdosta.edu. Also, please discuss this via email with your instructor(s) at the start of each class.

Course Requirements: Each student is to go over the assigned chapters **in advance** and attempt to solve the problems assigned from the end of each chapter **before** those chapters are discussed with the instructor. Go to the "[Schedule](#)" page to see the assignments for each class. This will highlight problem areas and prepare each student for questions and discussion. Each student is to prepare **two copies** of his or her homework assignments; one to be handed in to the instructor at the beginning of discussion, and one for the student to check during that discussion. If a student cannot complete all of the problems, she or he must at least demonstrate a good-faith effort to complete them on time. **Effort does count** in grading homework assignments. See the "[Assignments](#)" page for information on submission of homework and other items.

In addition to the textbooks, each student is required to have a calculator and graph paper. There are a number of relatively inexpensive calculators with statistical programs built in. Students must show all calculations on problems completed in the course, but might wish to use the calculator to check the work. Graph paper will be required to complete some of the homework assignments, and may be required to complete some of the problems during the examinations.

Note: All problems assigned for week one are due at the beginning of class on the first session. Students must begin work on this class prior to the actual start of the class. Attendance is very important to this class.

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Assignments

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Course Purpose: This course is designed to help current or future public managers become "statistically literate" – that is, to understand what statistical measure might be appropriate for a given purpose, and, equally important, when a statistical measure has been used inappropriately. It is not designed to produce statisticians. Quantitative measurement plays a key role in public management. Arguments were made (in the early '90s) that the Valdosta Police Department discriminates against minorities in its promotion practices. Quantitative measures are key to supporting or refuting those arguments. Quantitative measures are used in determining the staffing levels of schools, prison systems, hospitals, and so forth. An effective public manager needs a working understanding of quantitative methods if he or she is to survive in today's management environment.

Students should not be intimidated by this course. Everyone is engaged in a process of measurement throughout her/his life. Some may think that chocolate ice cream is "much better" than vanilla (an ordinal measure), or one may think that Hahira is a nicer place to live than Atlanta. When asked why one prefers Hahira, responses might deal with variables such as "there is less crime," or "less pollution." Statistics concerning crime and pollution can be used to verify or reject such impressionistic data.

The primary text selected for this course (Meier, Brudney, & Bohte) is written for practicing managers. The authors of the text do not assume any quantitative background. They are aware that many of the students in the course may not have taken a math course since their undergraduate or even high school days – and that those days might be a while in the past. Their purpose is to help "managers become intelligent and critical consumers of quantitative information." Each student should read the preface to the text carefully, and take the authors' advice to heart. The secondary text, by LeRoy & Corbett, is more of a "research" text for any students contemplating continuing their studies. It provides additional information that supplements the Meier, Brudney, & Bohte text. It also provides each student with a "stand-alone" statistical package, which should benefit students throughout their course of study. The LeRoy & Corbett text is also required in the PADM 7090 course.

Homework: The homework is meant to help each student understand the concepts and learn the methods involved in statistics and research design. Hopefully this experience will help students feel more comfortable with the process of dealing with statistics and research design. Please approach the homework problems as a learning experience. Take on more problems than are required for submission. It will be to your advantage to work on the homework before class so that you are able to take part in the discussion of the problems.

Examinations: The course will involve both in-class examinations and take-home examinations. The take-home examinations will have some applied component, such as preparing a report or memo based upon quantitative data. The in-class examinations will be proctored and will consist of problems similar to the ones found in the text.

Project Submission: All project files and assignments will be submitted using your VSU E-Mail account or through WebCT. Send the files as attachments to E-mail and formatted as outlined below unless another format is negotiated with the instructor. These files will follow the formatting and file naming conventions listed and explained below:

- **Text documents** will be formatted as either Microsoft Word or Adobe Acrobat *(PDF) documents.
- **Data files** (if needed) will be Excel files (for spreadsheet data) or Access files (if a database is required).
- **Presentations** (if needed) will be PowerPoint files.
- **Homework & Take-Home Test File Names:** for the homework assignments, use "homeworkch1.doc" as the file name; for the take-home test, use "takehome1.doc" for the file name.
- **Ownership of files:** to indicate your ownership of submissions, use your first and last names with either a dot * (.) or underscore *(_) between the parts. For example: gerald_merwin_homeworkch1.doc and gerald_merwin_takehome1.doc
- **Course Codes in Subject Line:** If you use BlazeNet or email to submit projects and homework (rather than WebCT) to associate your submissions with our course and to aid in filtering of E-mail, use the **PADM 7060** in the subject line of all messages sent to the instructor.
- **Questions:** Please ask questions if any part of this information is unclear.

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Class Policies

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Plagiarism: Please read the information on the MPA web site regarding [plagiarism](#). Please let the instructor know if you have any questions and we will discuss the topic further in class. (Anyone who has not yet signed a form indicating your understanding and agreement can go here: [plagiarism_form_for_student_signature.doc](#) if you need the form.)

Evaluation: Participants will be evaluated based on their performance of the following requirements with values listed:

Examinations	75%
Homework & Participation	25%
Total	100%

See the "[Assignments](#)" page for details on the components above.

Group Projects: In this course it might be appropriate for students to study together, but all homework and the take-home exam work should be done independently. If you have questions about any interpretation of this concept please contact or talk with the instructor. Any problems you have with doing the work in the course should be discussed with the instructor. Guidance and help will be provided as appropriate.

Style Guidelines: Although no paper is required for this course, it is possible that some aspect of a homework assignment or take-home test will require a written submission with references. Participants should use APA style for any written submissions (as needed). Get the [MS Word Template](#) (right-click and "Save Target As" to get file) and see "[APA Format Handout](#)" (PDF* file) on the [MPA Resources](#) page. (That "[APA Format Handout](#)" file is also available in MS Word format.)

Communication:

- E-mail is our preferred method of communication between class meetings. Students should use their VSU email account to send and receive messages. Use the following email address: gamerwin@valdosta.edu.
- I will generally respond to any e-mail within one to two working days. Likewise, I ask that you check your email daily and respond in a timely manner if a response is requested or warranted.
- If the email communication fails or some emergency comes up it is OK to contact the teacher by telephone. The best number is my cell number: (229) 221-2891 and voice mail is available in case I cannot answer. I will return calls if needed.

If you have problems with VSU E-Mail, WebCT, or web access: If you need assistance and/or support getting your VSU E-mail set up, please contact the [VSU Information Technology Help Desk](#): Phone: 229-245-4357 or visit them in Odum Library (at the location of the Old Reference Desk).

Attendance: Participants are expected to attend all class sessions and to be on time. Participants are permitted one professional-related absence with prior approval and/or one health-related absence. Documentation may be required. Each additional absence will require a make-up assignment or result in the loss of 15% on the final grade. Please be clear that it is the participant's responsibility to keep up with the work required even if they are absent from class. Contact the instructor if you have any problems. It is acceptable to get help from the instructor, but you must ask!

Language Biases: All participants are expected to employ non biased speech and prose--gender, race, and other. At times we will make mistakes and say or write in a manner which may cause offense. We will help each other to remove biases and offensive aspects from our speech and prose.

Working Together: Participants are encouraged to cooperate--share ideas, resources, and insights. Make certain the final product reflects your efforts, but help each other out. Learning, like almost everything, is more fun when it is a shared experience.

Questions/Concerns: If in doubt--ask! Do not let a little problem grow. The only "stupid" or "silly" question is the one that goes unasked.

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Schedule

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This course requires a combination of class attendance and individual work on homework, the take-home test, and other work. Some work might be completed outside of class and submitted through WebCT and/or email based on our in-class discussions.

- Week 1 Tuesday, February 14, 2006 Introductions, Review of Syllabus, Policies, etc., Discuss Assignments, Introduction to Statistics, Measurement & Research Design
Readings: Meier, Brudney, and Bohte (MBB), Preface, Chapters 1 - 3; LeRoy and Corbett (LR&C), Chapters 1 - 5
Homework: MBB Problems 2.2 and 3.2
Downloads: [Presentation MBB Chs1-3-Quantitative-Methods.ppt](#)
- Thursday, February 16, 2006 Descriptive Statistics
Readings: MBB, Chapter 4-6; LR&C, Chapter 8
Homework: Problems 4.2, 4.4, 4.10, 5.2, 5.16, Chapter 6 Problems - To Be Assigned Later (TBAL)
Downloads: [Presentation MBB Chs4-6-Quantitative-Methods.ppt](#) & [Take-Home Test 1](#)
- Week 2 Tuesday, February 21, 2006 Probability
Readings: MBB, Chapters 7 - 8
Homework: Problems TBAL
Downloads: [Presentation MBB Chs7-8-Quantitative-Methods.ppt](#)
- Thursday, February 23, 2006 Probability (Continued)
Readings: MBB, Chapters 9 - 10
Homework: Problems TBAL
Downloads: [Presentation MBB Chs9-10-Quantitative Methods.ppt](#)
- Week 3 Tuesday, February 21, 2006 Exam 1
Inferential Statistics
Readings: MBB, Chapters 11 - 12; LR&C, Chapter 6
Homework: Problems TBAL
Downloads: [Presentation MBB Chs11-12-Quantitative Methods.ppt](#)
- Thursday, February 23, 2006 Test-Home Test 1 Due
Inferential Statistics (Continued)
Readings: MBB, Chapters 13 - 14; LR&C, Chapter 6
Homework: Problems TBAL
Downloads: [Presentation MBB Chs13-14-Quantitative Methods.ppt](#)
- Week 4 Tuesday, February 28, 2006 Analysis of Nominal and Ordinal Data
Readings: MBB, Chapters 15 - 17; LR&C, Chapters 9, 10, 11
Homework: Problems TBAL
- Thursday, March 2, 2006 Regression Analysis
Readings: MBB, Chapters 18 - 23; LR&C, Chapters 12 - 13
Homework: Problems TBAL
- Week 5 Tuesday, March 7, 2006 Performance Management Techniques
Readings: MBB, Chapter 24
Homework: Problems TBAL
Summary and Discussion of any Other Topics
- Thursday, March 9, 2006 Final Exam and Wrap-Up