Class Meets: Tuesday and Thursday from 11:45 AM to 1:05 PM
Mid-term: October 20, in-class
Final: Monday, December 19th, 1:00 PM- 3:00 PM

Note: Make-up exams will only be offered in the case of medical or family emergency, or when mandated by University policy. Documentation in accordance with University policy must be provided for medical emergencies.

I. Course Description:

This course introduces basic statistics in public sector research and public policy decision-making. The emphasis is on exploration of data processing techniques as they relate to statistical analysis and on understanding the proper application of statistics. The objective of this course is to empower students to critically analyze and understand statistical information. Students will learn how to design quantitative research, how to do descriptive statistics, and how to conduct inferences based on given data. Students will also learn to critically evaluate the evidence offered for current policy initiatives at the local, state and federal levels. Upon completion of this course, students should be able to think critically about data, to use graphical and numerical summaries, to apply standard statistical inference procedures, and to draw conclusions from analyses.


Available at the Mary Jane Bookstore and the University Bookstore, you must purchase these books for the course—you may find that renting or buying the texts from online merchants such as Amazon to be more cost effective.

Supplementary Excel Text: Most of the assignments in the course require the use of Excel. You do not have to buy this book but you might find it helpful to have a copy of:

**Software:** Microsoft Excel 2016 (You do not need to purchase this software—you can access it for free with your University email address, see appendix for instructions)

**II. Course Requirements:**

To allow adequate class time to discuss critical and difficult issues, you must read the required chapters prior to class. Take notes on the parts you have difficulty to understand. PowerPoints slides and class notes will be posted on Blackboard before each class. Slides and notes are good guidance for reading the textbook. Please check your email account and the Blackboard site at least once a week for important updates on class materials.

You are expected to spend at least eight hours each week on this course besides in-class learning. These eight hours should be spent to review textbook chapters, class notes, solutions to example questions, and then finish homework. As part of the course learning, you should pay attention to policy studies published in newspapers. You will be asked to discuss these policy study examples in class and connect them to the statistical concepts we discuss. Some useful information sources are the New York Times and the Albany Time Union. As you are reading related articles on a certain policy study, pay attention to their data sources, data collection methods, analytical methodology, results, and their arguments based on the results.

**III. Grading and Assignments:**

1. **Participation and attendance** (20 points). Participation and attendance account for 20 points of the grade. Students are expected to attend each class on a timely basis (DON’T be late), so that they will benefit maximally from the class lectures, class exercises, and class discussion. Unexcused absences will result in a reduced final course grade. I will occasionally take attendance in class.

2. **Homework** (100 points). Throughout the semester, 11 homework assignments will be given to students. Previous experience proves that weekly practice is the best way to learn analytical skills. Assignments will be graded based on correctness of the results and your solution process. Please do include the solution process so you will get partial credits even if the result is not correct.

At the end of the semester I will drop the lowest assignment grade—use this knowledge strategically.

The assignments are a place to develop understandings and skills. For the problem sets and worksheets, you are encouraged to work on assignments in small groups and to help each other acquire skills and understanding. Workgroups will be organized during the first class. Students that work together must acknowledge their team members on each assignment. However, you are required to submit a write-up for each assignment that is completed individually. It is not acceptable to submit the same write-up or spreadsheet as
a classmate, unless explicitly approved by the course instructor. Students that submit the same write-ups or spreadsheets without explicit permission of the instructor will be subject to the disciplinary measures explained in more detail below.

Each problem set should be submitted as one Word document with Excel objects embedded or “paste special-ed” into the document. If you are unsure of how to embed or paste special Excel objects into a word document, please attend office hours with the instructor or the course TA. Please also attend office hours if you are unsure of how to use Blackboard to submit assignments. I will instruct the TA not to grade assignments that are not submitted correctly. Assignments should be submitted ONLY through Blackboard. Each assignment is due BEFORE class on the due date. Please make sure that you submit your assignments on time.

Assignments are due at the defined times. For problems sets that are not submitted on time, a grade of 0 will be assigned (this is a big penalty, so don’t submit late assignments). The course TA is NOT permitted to accept any late submissions. You have to discuss getting permission for late submissions directly with the course instructor.

Again, late submissions will NOT be graded. This policy will be strictly enforced (do not ask the TA to make an exception—she has been instructed not to do so).

The course teaching assistant will read the work you submitted to check for completeness, commenting on it as time permits, and recording the assignments that were handed in on time and complete. Each assignment will be graded as “10” for being on time, complete, and correct and “0” if it is not turned in. If you have further questions about a specific problem set or would like more detailed feedback, it is your responsibility to arrange a time to speak with the TA or course instructor if there is not enough time to review the problem in class. The TA may deduct partial points for missing portions of the assignment or for portions where substantial effort is not evident.

3. Midterm and final exams (100 points each). Each exam is worth 100 points. Exams account for the major part of the grade for this course. Exams are in-class and close-book. You are allowed to bring a letter size note card to the exams. You are allowed to bring a calculator. Smart phones and tablets are not allowed to be used in exams. Bringing other materials will be considered cheating and will result in penalties.

4. A note about Excel. The statistics performed in this course can be generated in Excel. You will need to know the basics of Excel. If you are not familiar with the basics, then you need become so. The lectures will cover the steps needed to perform a specific statistical function, but familiarity with the software is required.

5. Grade: Final grades will be based on class attendance and participation, homework assignments, and exams. Maximum points for each part are as follows:

<table>
<thead>
<tr>
<th>Part</th>
<th>Points</th>
</tr>
</thead>
<tbody>
<tr>
<td>Participation and discussion</td>
<td>20</td>
</tr>
<tr>
<td>Weekly assignments</td>
<td>100</td>
</tr>
</tbody>
</table>

100 points (10*10 points)
Midterm exam 100 points
Final exam 100 points
Total 320 points

Final letter grades will be assigned as followed:

<table>
<thead>
<tr>
<th>Grade</th>
<th>Minimum Points Earned</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>297</td>
<td>93%</td>
</tr>
<tr>
<td>A-</td>
<td>288</td>
<td>90%</td>
</tr>
<tr>
<td>B+</td>
<td>278</td>
<td>87%</td>
</tr>
<tr>
<td>B</td>
<td>265</td>
<td>83%</td>
</tr>
<tr>
<td>B-</td>
<td>256</td>
<td>80%</td>
</tr>
<tr>
<td>C+</td>
<td>246</td>
<td>77%</td>
</tr>
<tr>
<td>C</td>
<td>233</td>
<td>73%</td>
</tr>
<tr>
<td>C-</td>
<td>224</td>
<td>70%</td>
</tr>
<tr>
<td>D+</td>
<td>214</td>
<td>67%</td>
</tr>
<tr>
<td>D</td>
<td>201</td>
<td>63%</td>
</tr>
<tr>
<td>D-</td>
<td>192</td>
<td>60%</td>
</tr>
<tr>
<td>E</td>
<td>192 and below</td>
<td>59% and below</td>
</tr>
</tbody>
</table>

Grading and appeals for grade change: Students may appeal a grade on a specific assignment within two weeks of the assignment being returned. To submit an appeal, the student should return the original graded assignment and a letter/memo outlining why you think the grade should be changed. Appeals must be submitted on paper, type-written. In the appeal, students must identify 1) the specific issue you believe should be reconsidered and 2) evidence from assignment instructions, assigned readings, lectures, or other materials that would indicate your original submission is worthy of a higher grade. Be aware that your grade may go up, down, or remain the same as a result of your appeal.

IV. Course communication

To reach me, use my personal e-mail address. If the class must be cancelled on short notice, the announcement will be made through the Blackboard e-mail system. Also use this Blackboard e-mail for sharing common concerns and issues. Hence, you should make sure that your Blackboard e-mail is forwarded to your regular e-mail (so that you do not have to frequently check another e-mail account).

The section instructors and the course TA have provided telephone numbers for your convenience in scheduling appointments or answering course related questions. Please be considerate, and do not call or text at 2AM! The instructor and the course TA will discuss their preferred methods of communication during the first class meeting.
V. Course Ombudsperson

Ombudsperson: “A government official, especially in Scandinavian countries, who investigates citizens’ complaints against the government or its functionaries” (www.answers.com). One student will be asked to volunteer to act as an ombudsperson and will meet with me on a regular basis to offer feedback from students in terms of the direction the course is going and bring to my attention any problems with reading, assignments or other material.

I take feedback very seriously. You will have the opportunity throughout the course to anonymously offer feedback on the course content and instruction. This is your opportunity to be heard, and I will provide a timely response to your questions or concerns. Please keep your comments constructive.

VI. Plagiarism and cheating

As students of the University at Albany, it is expected and required that you are familiar with University guidelines on academic honesty. I have included links to relevant information below; it is your responsibility to familiarize yourself with this material.

Any form of academic dishonesty will not be tolerated. Please refer to University at Albany’s Academic Code at: http://www.albany.edu/content_images/AcademicIntegrity.pdf for the definition of academic dishonesty. Ignorance of these policies will not excuse dishonest conduct. Violations of these standards will result in one of the following penalties or some variant: reduction in the grade for the assignment, failure of the assignment, failure of the course, or expulsion. In all cases, a Violation of Academic Integrity Report will be submitted to the Dean of Graduate Studies to be placed in your university file, with copies provided to you, the department head, and the Dean of Rockefeller College.

As a policy for this course, plagiarism or cheating will result in a failing grade for the whole course.

In addition, I may pursue further disciplinary actions, including suspension and/or expulsion. For the purposes of this course, the following are taken as evidence of plagiarism or cheating:

- Material reproduced from another source without adequate citation.
- Identical answers being turned in by two or more students.
- Copying a computer file created by someone else (.xls, .md1, .doc, etc) as a basis for an assignment that you claim as your own.
- A pattern of unusually similar answers being turned in by two or more students.
- Written answers or solutions that a student cannot logically explain verbally.
- Other evidence of collaboration between students on an in-class or take-home assignment that was intended to reflect individual effort.
Your work may be subject to computerized analysis to discover whether materials have been taken from on-line sources or to determine statistically whether answers are more similar than random chance would allow. Since this is such an important matter, if you have any questions about this course policy, you should ask me for any clarification that you may need. Due to the intensive nature of this course, students are required to form study groups and to work together on assignments. Learn by interacting with one another — support and help one another.

However, each student should submit answers to the problem sets that are expressed in his or her own words. Submission of a “group” answer is not permitted; submission of group answers to satisfy an individual’s problem set assignment constitutes academic misconduct. Some assignments such as in-class or take-home exams and policy studies are to reflect only individual effort. For these assignments you are expected to neither give nor receive assistance from anyone.

VII: Other course policies

Use of cell phones, smart phones and laptops is permitted in class ONLY for educational purposes. You can use cell phones, smart phones, or laptops during class only for educational purposes, such as taking a note and using for in-class activities. If you carry a portable electronic device to class, please make sure that it is turned off or silent. If you need to make a phone call, text a message, check your email, etc., please wait until after class break. If you absolutely need to take a call during class (childcare, family emergency, etc.) please notify the instructor prior to class, and if you need to take a phone call, leave the class to do this so that you will not disturb others in the class.

If I see you using a phone or laptop in class for non-class purposes that have not been discussed previously, you will be asked to leave to classroom for the remainder of the class period and lose participation credit. Please see me if you have any questions about this policy.

Disability statement: Please see me at the beginning of the semester if you have a disability documented by the Office of Disabled Student Services (in the Department of Student Life) to request accommodations.

VIII. Class schedule:

The course will generally follow the schedule listed below. The schedule is subject to change at the instructor’s discretion. Any revision will be announced on the Blackboard or through email.

Class 1: Tuesday, August 30th
Topic: Introduction to the course
Reading: Wheelan Chapter 1
Assignment: none, come to class prepared to discuss assigned reading

Class 2: Thursday, September 1
Topic: Policy and statistics
Reading: Moore, McCabe & Craig 1.1, 1.2, 1.3, 1.4
Wheelan Chapter 2

**Assignment:** none

**Class 3:** Tuesday, September 6
**Topic:** Descriptive statistics: measures of central tendency, dispersion, and frequency distributions
**Reading:** Wheelan Chapter 3
**Assignment:** none

**Class 4:** Thursday, September 8
**Topic:** Descriptive statistics: measures of central tendency, dispersion, and frequency distributions continued
**Reading:** Moore, McCabe & Craig 2.1, 2.2, 2.3
**Assignment:** Problem set 1: Descriptive statistics

**Class 5:** Tuesday, September 13
**Topic:** Scatterplots and correlations
**Reading:** Wheelan Chapter 4
**Assignment:** none

**Class 6:** Thursday, September 15
**Topic:** Scatterplots and correlations, continued
**Reading:** Moore, McCabe & Craig 2.6 2.7
**Assignment:** Problem set 2: Scatterplots and correlation

**Class 8:** Tuesday, September 20
**Topic:** Two way tables and causal relationships
**Reading:** identify a policy article, bring it in to class
**Assignment:** none

**Class 9:** Thursday, September 22
**Topic:** Two way tables and causal relationships, continued
**Reading:** Moore, McCabe & Craig 3.1 3.4 3.3
**Assignment:** Problem set 3: Two way tables and causal relationships

**Class 10:** Tuesday, September 27
**Topic:** Research design and policy studies
**Reading:** Wheelan Chapter 7
**Assignment:** none

**Class 11:** Thursday, September 29
**Topic:** Research design and policy studies, continued
**Reading:** Moore, McCabe & Craig 4.1 4.2
**Assignment:** Problem set 4: Research design and policy studies

*Tuesday October 4: Classes suspended for Rosh Hashanah*
Class 12: Thursday, October 6  
Topic: Probability and statistics  
Reading: Wheelan Chapter 5  
Assignment: none

Class 13: Tuesday, October 11  
Topic: Probability and statistics, continued  
Reading: Wheelan Chapter 5 ½ 6  
Assignment: Problem set 5: Probability and statistics

Thursday October 13: Classes suspended for Yom Kippur

Class 14: Tuesday, October 18  
Topic: Midterm review  
Reading: none  
Assignment: review for midterm

Class 15: Thursday, October 20  
Topic: MIDTERM In-class  
Reading: Moore, McCabe & Craig 4.3 4.4 4.5  
Assignment: none

Class 16: Tuesday, October 25  
Topic: Probability distributions  
Reading: Gonick (posted on blackboard)  
Assignment: none

Class 17: Thursday, October 27  
Topic: Probability distributions, continued  
Reading: Moore, McCabe & Craig 1.4 3.4 5.1 5.2  
Assignment: Problem set 6: Probability distributions

Class 18: Tuesday, November 1  
Topic: Normal distributions, sampling design  
Reading: Wheelan Chapter 8  
Assignment: none

Class 19: Thursday, November 3  
Topic: Normal distributions, sampling design continued  
Reading: Moore, McCabe & Craig 5.1 6.1  
Assignment: Problem set 7: Distributions and sampling design

Class 20: Tuesday, November 8  
Topic: Inference and confidence intervals  
Reading: Wheelan Chapter 9  
Assignment: none
Class 21: Thursday, November 10  
Topic: Inference and confidence intervals continued  
Reading: Moore, McCabe & Craig 6.1 6.2 6.3 6.4  
Assignment: Problem set 8: Inference and confidence intervals

Class 22: Tuesday, November 15  
Topic: Tests for significance  
Reading: Wheelan Chapter 10  
Assignment: none

Class 23: Thursday, November 17  
Topic: Tests for significance continued  
Reading: Moore, McCabe & Craig 7.1 7.2 7.3  
Assignment: Problem set 9: Tests for significance

Tuesday November 22 & Tuesday November 24: Class suspended for Thanksgiving Break

Class 24: Tuesday, November 29  
Topic: Inference and comparing two means  
Reading: Wheelan Chapter 9  
Assignment: none

Class 25: Thursday, December 1  
Topic: Inference and comparing two means continued  
Reading: Moore, McCabe & Craig 10.1 10.2  
Assignment: Problem set 10: Inference and comparing two means

Class 26: Tuesday, December 6  
Topic: Simple linear regression  
Reading assignment: Wheelan Chapter 11  
Problem set assignment: none

Class 27: Thursday, December 8  
Topic: Simple linear regression continued  
Assignment: Problem set 11: Simple linear regression

Final exam review session to be scheduled
Instructions for Installing Office 365

Subscription License

UAlbany faculty, staff, and students are entitled to install and use Office 365 ProPlus on their Windows and/or Mac computers while they have UAlbany Mail email accounts. Please click here for additional information.

Faculty and staff should not perform this installation on a computer that is supported and managed by their Technical Coordinator.

Instructions

1. Log in to Outlook Web App (OWA) on your Windows 7, Windows 8, or Mac computer.

2. Click on the gear icon in the right corner.

3. Scroll down and select Office 365 Settings.

4. Click on Install and manage software.
5. You will see the following screen. Click on **Install** to begin installing the latest version of Office on your computer.

### Office 365 versus Office 2016/2013

Office 365 is cloud-based and requires a monthly subscription, which University at Albany offers to those with active email accounts. Office 2016 or older versions require a one-time fee, but you do not have to pay for a renewal each year. For most classroom uses, there is little difference in the functions between the two programs, although there might be a slight variation in the look-and-feel when using a cloud-based product. The advantages of Office 365 are that you can access files from multiple devices, you get access to new features as they become available, and it is compatible with file-sharing programs like Sharepoint and Yammer. The advantage of the stand-alone version of Office (e.g. 2016, 2013) is that you only need to pay for it once. After paying for the program, you never need to renew it; in contrast although Office 365 is free while you are a University at Albany student you will lose the subscription access upon graduation. The bottom line is that it does not matter which version you own for the purposes of the MPA program, as each version will offer the features you need to complete the coursework.

### For Additional Information on 365 versus 2013/2016

The materials were adapted from [University at Albany’s Wiki page](#) about Office 365 Wiki

If you want to learn more about the different versions, see:

- [Microsoft’s webpage](#) on what is new and improved in Office 2016 and 365
- [Tech Radar’s comparison](#) between the two programs

### For Mac Users

The Office programs work similarly on a Mac. If you are a Mac user and decide to work on your own machine, you should be able to get the same functions. However, there may be a slightly different look-and-feel and at times there may be slight compatibility issues when sharing files between PC and Mac users. For example, an Excel spreadsheet created and formatted on a Mac may look slightly different on a PC. These are minor issues. We teach Excel using PCs, so if you are an avid Mac user be aware that you may need to make some slight adaptations completing assignments on your own computer.
**Appendix II: PAD/POS 316 Problem Set Grading Rubric**

<table>
<thead>
<tr>
<th>Grade</th>
<th>Completeness</th>
<th>Correctness</th>
<th>Format</th>
</tr>
</thead>
<tbody>
<tr>
<td>10</td>
<td>Assignment is complete, all questions have been answered</td>
<td>Assignment is mostly correct, student demonstrates engagement and thoughtfulness about course material. If student is unable to technically complete a problem, a paragraph of explanation is included about why the student is stuck and speculates about what the next steps could be.</td>
<td>Student correctly integrates course software into problem set submission including but not limited to paste special. Grader is able to see formulas and clearly follow the students work.</td>
</tr>
<tr>
<td>8.5</td>
<td>Assignment may be mostly complete, missing one minor aspect</td>
<td>Assignment components completed may be mostly correct, student has demonstrated an effort to complete the assignment</td>
<td>Minor problems with format, slight difficulties following students work</td>
</tr>
<tr>
<td>6.5</td>
<td>Assignment is partially complete, missing one or more components of the assignment</td>
<td>Assignment has problems with correctness, substantial effort is not evident</td>
<td>Problems with the format, assignment instructions not followed. Grader has difficulty following students work.</td>
</tr>
<tr>
<td>0</td>
<td>Assignment was not turned in</td>
<td>Assignment was not turned in</td>
<td>Assignment was not turned in</td>
</tr>
</tbody>
</table>