

**POLITICAL SCIENCE 585: TECHNIQUES IN POLITICAL ANALYSIS:  
Fall 2005**

Instructor: Roman Ivanchenko

Class Hours: 11:30 am-01:18 pm Tuesdays and Thursdays

Class Location: 0125 Derby Hall

Office Hours: 9:30 am-11:00 am Tuesdays and Thursdays

Office Location: 2081 Derby Hall (note: if I am not in my office during the office hours then I am either in 2037 Derby or 2049 Derby)

Office Phone Number: 292-6550 (I will only answer if I am in my office)

The best way to contact me is via e-mail. My e-mail address is [ivanchenko.1@osu.edu](mailto:ivanchenko.1@osu.edu). Please, do not hesitate contacting me if you have questions.

**COURSE DESCRIPTION**

In this class, I will introduce the concepts involved into theory building, research design, and empirical testing. Together we will develop basic tools needed to analyze behavior of various political actors. Throughout the class, I will try to provide you with realistic applications of statistical concepts, and I expect you to be comfortable with their use by the end of this class. This class will teach you that statistics is not something to fear. In fact, it is both understandable and useful. It is my hope that you each leave this class with the understanding of the basic statistical concepts and the ability to apply them.

There is only one required text for this class: Levin, Jack and James Alan Fox. 2004 *Elementary Statistics in Social Research: The Essentials*. Boston, MA: Allyn and Bacon. The text will cover the latter two thirds of the class. I will simply lecture during the first several class sessions, which means that it is imperative for you either to be in class and take good notes or to acquire good notes from your fellow classmates. I do not give out my notes.

**THE UNIVERSITY'S EXPECTATION**

Goals/Rationale:

Courses in quantitative and logical skills develop logical reasoning, including the ability to identify valid arguments, use mathematical models, and draw conclusions based on quantitative data.

Learning Objectives:

Data Analysis. Students understand statistics and probability, comprehend mathematical methods needed to analyze statistical arguments, and recognize the importance of statistical ideas.

## **GRADING**

Your grade will consist of three quizzes, two homeworks, and two tests:

Each quiz is worth 10 percentage points of the final grade. Quizzes will be administered at the end of a regular lecture/class period. They will not take more than 10-15 minutes. You will be required to answer 8 to 12 questions relevant to the topics covered in the weeks leading up to the quiz AND you will be expected to correctly answer any questions related to the readings scheduled for the day of the quiz. Please, note that I may and will expect you to calculate certain statistics using provided data.

There are no make-up quizzes. If you skip a quiz without a legitimate reason (legitimacy is determined by the department's and the university's policies), you receive 0 as the grade for the skipped quiz. If you skip a quiz due to a legitimate and appropriately documented reason then you will be allowed to earn the points by taking a test consisting of essay questions during my office hours.

You are expected to complete two homeworks. Each homework is worth 10 percent of the final grade. The homeworks will be assigned in the second half of the class. Your task will involve the use of statistical software (SPSS) as well as checking your computer output by doing all required calculations by hand. Additionally, you will have to interpret your results in terms of substantive and statistical significance. Failure to provide appropriate interpretation will result in a significant loss of points. You may submit your SPSS output as it is, however, the rest of your answers will need to be typed and appropriately formatted.

Obviously, to complete your homeworks you will require access to statistical software. Whenever it is available, you can use the services of a computer lab at Derby 150, or you can use any other computer with SPSS.

Your homework is late if it is not in my hands (literally) by the end of the class when it is due. Late homeworks will not be accepted. You will have plenty of time to complete these assignments, which means that there are absolutely no excuses for not turning them in on time. If you are afraid that your car will not start in the morning and you will be unable to come to class at all, you can always turn in your homework simply by e-mailing it to me the night before it is due.

We will have two tests: the midterm and the final. Both tests are worth 25 points of the final grade. The final is not cumulative. The tests will normally consist of 30 to 50 questions. Some of the questions may involve calculating particular statistics. Although, you may use calculators

during the test, you are not allowed the use of scientific/graphing calculators. People who developed the statistics we will study in this class did not have the advantage of high powered calculators; the best they could hope for was a couple of rocks and an abacus. If you would like to use an abacus during one of the tests, you may do so.

The skipped test policy is the same as my policy for skipped quizzes, except the make-up essays are much longer and much more difficult.

Should you have a problem with an assignment grade you can ask me to regrade the assignment within a week of its return back to class. After a week has elapsed, no grade complaints will be reviewed, regardless of whether you were in class on the day I distributed the graded assignments. If your request is on time, I will look over your entire assignment not just the parts that you think are problematic.

Finally, I will not have any attendance points; however, I will take attendance every day. If the final grades are too low, and I feel that they need to be adjusted, people with a good attendance record will benefit the most.

#### Grading Scale:

93-100%: A  
90-92.9: A-  
87-89.9: B+  
83-86.9: B  
80-82.9: B-  
77-79.9: C+  
73-76.9: C  
70-72.9: C-  
67-69.9: D+  
60-66.9: D  
<60: E

Please, note that it is your responsibility to drop the class if you decide to do so. Your intent to drop the class (which involves not attending and not completing assignments) and forgetting to complete proper paperwork (or any other reason explaining why you did not do it) will result in an E for the class.

#### **ACADEMIC MISCONDUCT**

This is an upper-level class, which means that I do not need to worry about academic misconduct. However, if you have any confusion about what constitutes academic misconduct, it is your obligation to consult the Ohio State University Code of Student Conduct. Should you ignore the guidelines of honest academic behavior, you will be punished in accordance with the university policies.

## **ETHICAL BEHAVIOR**

You are all responsible and intelligent adults, which means that the following warnings/requests are superfluous, however, please, make sure that you behave respectfully toward other individuals in the classroom. Everyone (including your instructor) will avoid offensive language. It is understandable that some of the topics that we will discuss are politically and emotionally charged; however, learn to express your opinions in a non-offensive manner. Believe me, if anything this ability will help you progress in your lives long after college. I reserve the right to conduct discussions in a parliamentary manner: all questions and comments would be directed toward and the recognition of speakers will come from the moderator/me. Additionally, please make sure to turn your phones/pagers off before the class. Also, sleeping in class is considered to be an invitation for an exercise in Socratic questioning.

## **STUDENTS WITH DISABILITIES**

Any student who needs assistance with the class due to a disability must notify me to make appropriate arrangements. You must contact the university's Office of Disability Services (292-3307) to receive appropriate documentation.

## **SCHEDULE** (subject to change)

### Week 1: Introduction

Day 1 (September 22<sup>nd</sup>) Introduction of the class material. Brief lecture on science and the social science methods of research.

### Week II: Defining Research

Day 2 (September 27<sup>th</sup>) Conceptual Foundations of Research.

Day 3 (September 29<sup>th</sup>) Elements of Research

### Weeks III and IV: Design and Structure of Research

Day 4 (October 4<sup>th</sup>) Ethics in Social Science Research

#### **Quiz 1**

Day 5 (October 6<sup>th</sup>) Experiments

Day 6 (October 11<sup>th</sup>) Cross-Sectional and Quasi-Experimental Designs

Day 7 (October 13<sup>th</sup>) Measurement

#### **Quiz 2**

### Week V: Frequencies and Means

Day 8 (October 18<sup>th</sup>) Organizing Data

Read: Levin and Fox, Chapter 2

Day 9 (October 20<sup>th</sup>) Measures of Central Tendency

Read: Levin and Fox, Chapter 3

### Week VI: Variances and the Midterm

Day 10 (October 25<sup>th</sup>) Measures of Variability

Read: Levin and Fox, Chapter 4

Day 11 (October 27<sup>th</sup>) **Midterm**

### Week VII: Probability and Probability Distributions

Day 12 (November 1<sup>st</sup>) Introduction to Probabilities  
Read: Levin and Fox, Chapter 5

Day 13 (November 3<sup>rd</sup>) Probability Distributions  
Read: Levin and Fox, Chapter 5

Week VIII: Inferences and Testing

Day 14 (November 8<sup>th</sup>) Samples and Populations  
Read: Levin and Fox, Chapter 6

**Quiz 3**

Day 15 (November 10<sup>th</sup>) Difference of Means Test  
Read: Levin and Fox, Chapter 7

Weeks IX, X, and XI: Testing (cont.)

Day 16 (November 15<sup>th</sup>) Analysis of Variance  
Read: Levin and Fox, Chapter 8

Day 17 (November 17<sup>th</sup>) Non-Parametric Tests of Significance  
Read: Levin and Fox, Chapter 9

**Homework 1 is due**

Day 18 (November 22<sup>nd</sup>) Correlation  
Read: Levin and Fox, Chapter 10

Day 19 (November 24<sup>th</sup>) Thanksgiving Day  
Conduct a Field Experiment

Day 20 (November 29<sup>th</sup>) Regression Analysis  
Read: Levin and Fox, Chapter 11

Day 21 (December 1<sup>st</sup>) Non-Parametric Measures of Correlation  
Read: Levin and Fox, Chapter 12

**Homework 2 is due**

The final exam will be held on Monday, December 5<sup>th</sup>, between 1:30 pm and 3:18 pm.