

## PSCI 2024: Research Methods in Political Science, Spring 2012

CRN 15615: MW 9:05–9:55 a.m., Randolph 320; F 9:05–9:55 a.m., Torgersen 1010.

Dr. Christopher N. Lawrence <[cnlawren@vt.edu](mailto:cnlawren@vt.edu)>, <http://www.cnlawrence.com/teaching>

Office: 525 Major Williams Hall, MWF 10–11 a.m., or by appointment.

TA: Chelsea Hickey <[hickeyc@vt.edu](mailto:hickeyc@vt.edu)>, 508 Major Williams. Tu 3–4 p.m., Th 2–4 p.m., or by appointment.

The purpose of this course is to train students in how to analyze political and social phenomena in a rigorous and scientific manner. This knowledge requires an understanding of two different components: research design and statistics.

In the first component, students will learn how to discriminate between theories, pose proper research questions, construct a relevant hypothesis, make valid causal inferences, operationalize concepts, and test their hypotheses. The latter component offers the student a “statistical toolbox” to use as he or she pursues the scientific study of the social sciences. This component covers quantitative topics such as central tendency and dispersion, measures of association, and regression analysis, using both manual computation and computer software.

Above all else, it is my hope that this course will whet your appetite for the study of politics as a *science*, and thus prepare you to better understand the content of future classes in the social sciences and perform your own inquiries into political and social phenomena.

To be successful in this class, you should have either already taken a course in college-level algebra or statistics.

**Required Materials:** There are three required books for this course:

- ▷ Philip H. Pollock III. 2011. *The Essentials of Political Analysis*, 4th ed. Washington: CQ Press. ISBN 978-1-60871-686-9.
- ▷ Philip H. Pollock III. 2011. *An SPSS Companion to Political Analysis*, 4th ed. Washington: CQ Press. ISBN 978-1-60871-687-6.
- ▷ Baglione, Lisa A. 2011. *Writing a Research Paper in Political Science: A Practical Guide to Inquiry, Structure, and Methods*, 2nd ed. Washington: CQ Press. ISBN 978-1-60871-991-4.

These textbooks should be available, new and used, at various textbook stores around Blacksburg; you may also be able to order them on-line at a discount. The two Pollock texts are also available in a bundled package, ISBN 978-1-60871-920-4, which may be less expensive.

You also may be provided with additional course materials being developed by Dr. Lawrence, Dr. Brians, and professors at other universities as part of an ongoing NSF-funded project to develop “open content” materials for political science research methods courses. These materials will be distributed through Scholar or as handouts.

You will also need a scientific, financial, or statistical calculator if you do not already have one—it will need to be capable of calculating square roots at a *minimum*. I would also recommend obtaining a **USB flash drive**, if you do not already have one, for use during the labs.

**Grading:** Your final grade in this course will be based on the following elements, weighted as specified below:

Exam 1	15%	Research Project	20%
Exam 2	15%	Labs and Homework	20%
Final Exam	25%	Participation	5%

The following letter grades can be earned in this course (rounded to one decimal place), based on your final

average as calculated above:

Minimum Grade	93.0	90.0	87.0	83.0	80.0	77.0	73.0	70.0	67.0	63.0	60.0	< 60.0
Grade	A	A-	B+	B	B-	C+	C	C-	D+	D	D-	F

**Exams:** The two term exams and final exam will be in-class examinations, including short-answer questions and statistical problems. The term exams will cover topics covered in that portion of the course; the final exam is *comprehensive*.

On the quantitative portions of the exams, you will be expected to show all of your work. If you do not show sufficient work to indicate how you arrived at your answer, **you will not receive any credit for that question**, even if your answer is mathematically “correct.”

**Homework and Lab Assignments:** The class will include regularly-scheduled homework assignments, designed to improve your understanding of the material presented in the lecture. An assignment will also be included as part of each lab.

Homework assignments and labs, unlike the exams, will primarily be graded on the basis of whether or not a reasonable effort was made to correctly answer the problems (correctness is a secondary consideration). It is in your best interest—both in terms of your grade on the homework, and your performance on the exams—to complete these assignments to the best of your ability.

Lab assignments will generally be due at the beginning of class at the next scheduled meeting after the lab. Homework assignments will generally be due 5–7 days after they are assigned.

**Research Project:** Each student will be assigned a topic to produce an individual research paper, in which they will make use of social scientific data to explore an important political topic.

After you are assigned a topic, the paper is developed in three stages; their weight within your total paper grade is listed in parentheses:

1. You will first produce a *literature review* incorporating discussion of relevant past research; typically this literature review will be around 5–7 pages in length. (20%)
2. You then will produce a first draft of the final paper; typically this draft will be around 8–10 pages long, and incorporate the literature review (edited in light of comments from the professor on that assignment). (25%)
3. Finally you will produce a final version of the paper, typically 10–12 pages in length, incorporating revisions based on the professor’s comments on your draft. (30%)

In addition, you will be assigned to work with a small group of fellow students in the same section working on similar questions to produce a *group oral presentation* (to be presented at the end of the semester) that integrates the findings of your individual projects. (25%)

Each stage of the paper will be an element of the research project grade. The “new” material in each subsequent draft of a paper will generally be graded more leniently than material that was expected to be revised in the more complete draft. You should expect *substantially greater* grade reductions for problems that remain uncorrected after being pointed out to you in subsequent drafts of a paper, even if the penalties for those problems were relatively light in the initial draft where the problems appeared.

Students should expect that their draft and final papers will be graded using a course rubric; a copy of this rubric will be posted on Scholar for your reference. Further details on what each stage of the project entails will be presented in class.

**Participation and attendance:** 5% of your grade will be based on your level of participation in class. This

will be evaluated holistically by the professor.

Students who have multiple absences that are not *excused* should expect to receive a substantial reduction in their participation grade. The full definition of an excused absence, and acceptable documentation thereof, is below.

**Class Policies:** I make it a general policy to treat all students as adults. While this affords you, the student, greater freedom than you may have had in high school, it also means that you must take a greater personal responsibility for your performance in the course. I am always happy to meet with students to discuss their concerns about the course, but I will not necessarily assume that you are in difficulty simply because you perform poorly on a homework assignment or disappear from class for a few days.

Please provide a respectful learning environment for your fellow students. Repeated tardiness, cell phone disruptions, reading materials unrelated to the course (such as the student newspaper), abuse of communication technologies (e.g., web browsing/IMing/texting during class), or other disruptive behavior during class will adversely affect your grade.

**Please arrive at class *on time* and mute (or switch off) all pagers, cell phones, and alarms during class.**

Make-up examinations must be scheduled two weeks in advance in the case of an **unavoidable** planned or reasonably-foreseeable absence; otherwise, make-ups will be given only in the case of an illness or emergency that is properly **documented**. In general, excusable absences include medical or family emergencies and travel as part of a university-sponsored activity; examples of acceptable documentation may include a doctor's note, accident report (from a federal, state, or local law enforcement agency), notification of travel dates from an athletics coach, or summons from a court. Students who miss (or who are more than 15 minutes late for) an appointment for a make-up examination should not expect another make-up opportunity.

Any extra-credit opportunities offered by the professor will be offered to **all** students on an equal basis. Please do not ask the professor for individualized extra credit opportunities.

I do not provide lecture notes for students under any circumstances. You will have to rely on the generosity of a classmate or make use of any materials provided on the textbook website or the textbook's study guide, if applicable.<sup>1</sup>

This syllabus is subject to revision by the professor.

**Late Work:** A late penalty of up to **5 percentage points per day** will apply to work turned in after the deadline for the assignment.

To encourage you to treat the research paper as a cumulative product, you will not receive credit for turning in an earlier stage of the research paper based on submitting a later stage of the paper (for example, turning in the research paper draft will not entitle you to credit for the literature review), nor will you receive any credit for a stage of the paper that is turned in within four days of the due date for the next stage of the paper.

No assignments will be accepted for credit after 12 p.m. (noon) on the day following the final examination for this course, except under extraordinary circumstances justifying the assignment of an Incomplete grade.

**Grade Appeals:** If you wish to dispute a grade on a particular assignment for any reason other than an obvious arithmetic error on my part, you will need to type a one-page explanation of your position and turn it in, along with the original graded assignment, *at least one week after* the assignment is returned to you. I

---

<sup>1</sup>Students with disabilities who require notes or other learning environment accommodations should consult with the Student Disability Services office for assistance.

will then consider your appeal and make a determination. Appeals must be submitted in hard copy format; no appeals submitted via email will be considered.

For appeals regarding your final grade in the course, please consult the Student Handbook and Catalog for procedures.

**University and College Policies:** A grade of incomplete (“I”) is assigned only to a student who is otherwise passing the class and only in cases of unavoidable or unforeseen circumstances (e.g., major illness) preventing a student from completing the course requirements. Verifiable documentary evidence is required.

Any student who feels that he or she may need an accommodation because of a disability (e.g., learning disability, attention deficit disorder, psychological, physical, etc.) should make an appointment to see the professor during or outside of office hours; in general, accommodations will be made based on the written recommendations of the Services for Students with Disabilities Office (540-231-0858 or <http://www.ssd.vt.edu/>).

To maintain a fair and untainted learning environment for all students, there must be no cheating, plagiarism, or other dishonest conduct, as defined by Virginia Tech policy. Each of these terms is defined in the Virginia Tech Honor Code (<http://www.honorsystem.vt.edu/>). Each and every graded assignment shall include a statement personally signed by the student stating that the work was performed by the undersigned student. All course work must be completed solely by the individual student, unless specifically identified in writing as a group project by your professor. Any violations of the honor code will be fully reported. Recommendations regarding avoiding plagiarism and citing others’ work are included in the course handout on plagiarism (posted in Scholar and on the professor’s website).

**Withdrawal Deadlines:** The course drop deadline is Monday, February 27th. The deadline for resignation (dropping all courses) is Monday, March 19th. The last day to apply for a “W” grade is Friday, April 27th.

**Course Outline:** Any changes to this schedule will be announced in class and will be posted to the course calendar and in Scholar. We will not necessarily read books “front-to-back”; please be sure you read the correct chapters *in advance* of the designated class dates.

While the professor may periodically remind students of upcoming scheduled events, it is **your responsibility** to be familiar with this schedule and any changes to it.

Note that while we will meet in the computer lab (Torgersen 1010) every Friday, we will not necessarily be engaged in lab activities each Friday.

**Jan 18: What is Social Research?** Introduction to the course; paths to knowledge in the social sciences.

**Jan 20, 23, 25: The Problem of Measurement** Defining, measuring and operationalizing concepts; reliability and validity.

Reading: *Essentials* Chapter 1.

**Jan 27, 30; Feb 1: Describing Variables** Levels of measurement; descriptive statistics.

Reading: *Essentials* Chapter 2.

**Feb 3: Lab 1** Introduction to SPSS software; basic descriptive statistics.

Readings: *Companion* Chapters 1–2.

**Feb 6, 8: Explanations and Hypotheses** Developing explanations, hypotheses, and hypothesis tests.

Reading: *Essentials* Chapter 3.

**Feb 10: Lab 2** Transforming Variables

Reading: *Companion* Chapter 3.

**Feb 13, 15: Research Designs** Experimental, quasi-experimental, and controlled-comparison designs.  
Reading: *Essentials* Chapter 4.

**Feb 17: Exam 1**

**Feb 20: Writing a Research Paper** Selecting research topics. Writing a research paper, including the literature review.  
Readings: *Companion* Chapter 11; handouts on plagiarism and literature reviews.

**Feb 22: Controlled Comparisons** Types of relationships among three (or more) variables and the concept of *control*; how to make controlled comparisons.  
Reading: *Essentials* Chapter 5.

**Feb 24: Lab 3** Simple Comparisons.  
Reading: *Companion* Chapter 4.

**Feb 27, 29: Controlled Comparisons (cont'd)**

**Mar 2: Lab 4** Controlled Comparisons.  
Reading: *Companion* Chapter 5.

**Mar 5, 7, 9 No Class: Spring Break**

**Mar 12 Literature review due.**

**Mar 12, 14, 16, 19: Sampling and Inference** Random samples; the central limit theorem; inference using the normal and *t* distributions; inference based on sample percentages and proportions.  
Reading: *Essentials* Chapter 6.

**Mar 21, 23, 26, 28: Hypothesis Testing** Statistical significance; independent-samples tests for differences of means and proportions.  
Reading: *Essentials* Chapter 7 (part).

**Mar 30: Lab 5** Inference using the Mean.  
Reading: *Companion* Chapter 6.

**Apr 2: Exam 2**

**Apr 4, 6: Measures of Association for Two-Way Tables** Chi-square, lambda, and ordinal measures of association between variables.  
Reading: *Essentials* Chapter 7 (remainder).

**Apr 9 Research Paper Draft due.**

**Apr 9, 11: Correlation and Bivariate Regression** Relationships among two interval/ratio variables.  
Reading: *Essentials* Chapter 8 (part).

**Apr 13: Lab 6** Chi-Square and Measures of Association.  
Reading: *Companion* Chapter 7.

**Apr 16, 18: Linear Regression** Regression (cont'd), including dummy variables and control variables.  
Reading: *Essentials* Chapter 8 (remainder).

**Apr 20: Lab 7** Correlation and Linear Regression.  
Reading: *Companion* Chapters 8–9.

**Apr 23, 25, 27, 30** Group Presentations.

**May 2** Review for Final Exam.  
**Final research paper due.**

**Tuesday, May 8: Final Exam** 7:45–9:45 a.m., Randolph 320.