

# Department of Political Science

## Graduate Student Summer Introduction to Statistical and Programming Software

Department of Political Science  
Texas A&M University

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August 22-26, 10:00-Noon, Allen Building, Room 2003

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**Office hours:** By appointment

**General:** The goal of this short summer “bootcamp” is to get all incoming graduate students to parity in their ability to use statistical and programming software. Use of these programs is a crucial component of success in graduate school. Some students may not have any experience with the most common statistical software used in political science. Others may be familiar, but may have not been exposed to the full capabilities of a particular program. Still others may simply need to be refreshed about the capabilities of certain programs. It is *very* likely that you will encounter these programs throughout graduate school. We will cover the following applications in detail:

- Stata
- R
- L<sup>A</sup>T<sub>E</sub>X (and Beamer)
- Other important applications and things to know (Dropbox, Library access...)

The two statistical software programs we will focus on are Stata and R. They are some of the most common programs used by political scientists for statistics and data management. We will also cover L<sup>A</sup>T<sub>E</sub>X, which is a program to compile text documents. Beamer is closely related, and akin to Powerpoint. Finally, we will cover some other programs as well as learn the various on- and off-campus resources available to you.

By the end of the course, students should be:

- Familiar with the two major statistical software programs covered (R and Stata) and be able to load and organize data, as well as run basic statistics and regressions.
- Aware of the tools and resources available for troubleshooting. While the course materials should give a solid foundation, there is much more information available online.
- Set up with Texas A&M-specific support structures (library access, GetItForMe, etc.).

**Grades and Participation:** There are no grades for the course. Rather, students are expected to come to class everyday prepared to read through the course materials and participate in the lab. We will learn by moving through pdf documentation of each software package, stopping for short assignments and allowing you the chance to interact with the program. This will be in an informal atmosphere, and questions are highly encouraged. Readings, if any, are expected to be completed before coming to class. There is some suggested homework which involves downloading the applications discussed in class. Finally, I reserve the right to alter the schedule as necessary; we have a lot to cover in only eight hours, and if students desire more time to work we can adjust the schedule as needed.

**Required texts:** There are no required textbooks for this course. Instead, all files are available at the [instructor's website](#), under the Courses page. Click on "Course Materials for Introduction to Statistical and Programming Software." You will be prompted to enter a username and password to access the materials. The username and password will be provided on the first day of class

## Monday, Day 1

On the first day we will learn about the following resources:

- Computer access, labs, and accounts
- Library access & PSEL
- GetItForMe
- Google Scholar
- Email alerts

Time permitting, start introduction to Stata.

Required Readings:

- Eubank, Nicholas. 2016. "Embrace your fallibility: Thoughts on code integrity." *The Political Methodologist*. (Available [here](#))
- Jonathan Nagler's "Coding Style and Good Computing Practices" (Available [here](#))

## Tuesday, Day 2

Stata (continued). Time permitting, start introduction to R

Required Readings:

- None

Homework (suggested):

- If you have access to the POLS shared drive (i.e. have an office computer hooked up to the network), download Stata 14 for Windows or Mac.

## Wednesday, Day 3

R (continued)

Homework (suggested):

- Download R. Download RStudio.

## Thursday, Day 4

No class meeting

Homework (suggested):

- None

## Friday, Day 5

Introduction to  $\text{L}^{\text{A}}\text{T}_{\text{E}}\text{X}$  and Beamer. Time permitting, we will cover some miscellaneous (but important) topics:

- Dropbox
- Importance of a website
- CV
- VPN into Texas A&M
- Mac- and Windows-specific text editors
- Presentations and presentation style

Last, there will be a take-home final assignment that utilizes everything we have learned throughout the week.

Required Readings:

- [Chartjunk](#). Tufte, Edward. See also on [PowerPoint](#).
- “The cure for ‘Death by PowerPoint’ in any language”. 2015. Gallo, Carmine.

Homework (optional):

- Download  $\text{L}^{\text{A}}\text{T}_{\text{E}}\text{X}$ .
- Create a Dropbox account.
- Create a website

## **Statement about Students with Disabilities**

The Americans with Disabilities Act (ADA) is a federal anti-discrimination statute that provides comprehensive civil rights protection for persons with disabilities. Among other things, this legislation requires that all students with disabilities be guaranteed a learning environment that provides for reasonable accommodation of their disabilities. If you believe you have a disability requiring an accommodation, please contact Disability Services, in Cain Hall, Room B118, or call 845-1637. For additional information visit <http://disability.tamu.edu>.

## **Honor Code/Copyright and Plagiarism Statements**

The Aggie Honor Code states: “An Aggie does not lie, cheat, or steal, or tolerate those who do.”

The handouts and lectures used in this course are copyrighted. By “handouts,” I mean all materials generated for this class, which include but are not limited to syllabi, exams, in-class materials, and review sheets. Because these are copyrighted, you do not have the right to copy them, unless I expressly grant permission. In addition, I do not grant permission to tape class lectures.

“As commonly defined, plagiarism consists of passing off as one’s own the ideas, words, writings, etc., which belong to another. In accordance with the definition, you are committing plagiarism if you copy the work of another person and turn it in as your own, even if you should have the permission of the person. Plagiarism is one of the worst academic sins, for the plagiarist destroys the trust among colleagues without which research cannot be safely communicated. If you have any questions regarding plagiarism, please consult the Aggie Honor System Office website (<http://www.tamu.edu/aggiehonor>) or the latest version of the Texas A&M University Student Rules, under the section ‘Scholastic Dishonesty.’ ”