Duke Political Science Math Camp Information
Designed by Dr. David Siegel

2019 TAs:
Gabriel Madson (gabriel.madson@duke.edu) | Office Hours 11AM-1PM Fridays
Marco Morucci (marco.morucci@duke.edu) | Office Hours 2PM-4PM Mondays
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Hello, and welcome to graduate school at Duke!

As you may know, most graduate programs in political science utilize a math camp to help get incoming students up to speed. We use an online summer course that has more coverage than the standard two-week course. Our goal is to give you a much more solid foundation as you transition into the program. The material in this course will come up again and again in your classes, and taking the time to learn it over the summer before you begin will save time and stress later.

All materials for the class can be found at http://people.duke.edu/~das76/MooSieBook.html. Look down the page at the "complete video course section" and start by reading the syllabus there. You can access the videos via links in the syllabus or through their YouTube channel (linked in that same webpage section).

The math course consists of video lectures, each broken up into 3-10 modules that vary pretty widely in length (please see below for the schedule). There are several things you can and should do to help maximize the payoff from the time you invest in this:

1. Don't multitask! There are tons of studies that indicate it hinders comprehension. Set aside time to watch, as if you were in class. The modules make it easy to partition time.
2. Pause often! There are parts you'll find easy and can move through quickly, and parts you will not. When you come to the latter, pause and think about it. Rewind if needed.
3. Practice! We've offered lots of ways to do this. First, there are problems in the textbook (links on http://people.duke.edu/~das76/MooSieBook.html). Roughly half have solutions posted to that webpage, and some of these problems are worked out in detail. Second, the webpage has additional problem sets, one for each lecture, with solutions also available. Third, there are additional problem session videos that work out a handful of problems from each lecture as examples; these are shorter than the lectures. Fourth, you will have regularly assigned problem sets (different from the ones already posted) that will be graded by the class TAs over the course of the summer.
4. Ask questions! We offer multiple ways to do this. There are three PhD students who will be available for office hours (via Google Hangouts) from

now until you arrive in August to answer questions. We encourage you to ask the TAs questions that you have about the material and the problem sets. Once you arrive here in Durham, we'll also have question and answer sessions during the orientation, staffed by some combination of the three TAs. Try to resolve questions over the summer when they arise, but know you'll have lots of opportunities to answer them in person as well.

You'll get the most out of the material if you stay engaged weekly and make use of the time with your TAs. If you are on vacation or are too committed with other obligations, just let the TAs know.

Toward the end of August orientation, there will be an assessment exam. The point of this is to help us assess where you are, so we can advise you better. We will combine your performance on this equally with that on your problem sets to discern which methods classes you should place into during your first year. No official grade is issued, but your scores allow us to assess where you are already in the methods sequence. We strongly advise taking the exam, and Math Camp as a whole, seriously. Much of the material covered here may seem unnecessary at first, but will be fundamental to understanding concepts covered later on in the methods sequence. For example, an understanding of calculus is needed to properly interpret interactions in regression models and knowledge of linear algebra is necessary for finding maximum likelihood estimates and properly working with statistical software. Actively engaging in Math Camp throughout the summer will make progress through the methods sequence significantly easier!

Bottom line: While we do not want you to burn yourself out over this, we think that investing in the material will pay off as you begin your transition to our program.

Problem Set Due Date	Lecture Covered	Assigned TA
May 12th	1 & 2	Gabe
May 19st	3	Pei-Yu
May 26th	4	Pei-Yu
June 2nd	5	Pei-Yu
June 9th	6	Pei-Yu
June 16th	Midterm Review	
June 23rd	7	Marco
June 30th	8	Marco
July 7th	9	Marco
July 14th	10	Marco
July 21st	11	Gabe
July 28th	13 (skipping 12)	Gabe