Instructor	**Teaching Assistant**
Sarah Tahamont	Ben Pheasant
2220J LeFrak Hall	2220AA LeFrak Hall
Email: tahamont@umd.edu	Email: bwpheas@umd.edu
Office Hours: Tuesdays 10:30am-12:30pm	Office Hours: Mondays 1:30 – 3:00pm
& by appointment	
Pronouns: she/her/hers	Pronouns: he/him/his

Course Prerequisites: Working familiarity with simple mathematical and algebraic computations. Calculus is not required.

Required Text: None. There is no required textbook for this course. The bulk of the reading will come from my lecture notes, which I will post on ELMS. Any other required readings will be posted on ELMS or otherwise available online.

Optional Supplementary Text: Students often find statistics courses without a textbook to be somewhat unsettling. If you would like a supplementary volume for reference, this one should work:

Agresti, A and Finlay, B. *Statistical Methods for the Social Sciences, 4th edition.* Upper Saddle River, NJ: Pearson, Prentice Hall, 2009.

Should you find yourself looking for additional Stata help, this book might be of use.
Longest, Kyle C., *Using Stata for Quantitative Analysis*, Sage Publications, Inc.

Course Objectives: Specific course objectives are as follows:

1. understand the fundamentals of statistical inference – what it is and, importantly, what it is not;
2. identify and interpret patterns in raw data;
3. understand basic ideas of probability;
4. make and interpret elementary statistical inferences; included here is the capability to compute and interpret hypothesis tests and confidence intervals;
5. execute and interpret rudimentary regression analysis;
6. recognize limitations of statistical analyses and identify pitfalls in their interpretations;
7. gain basic familiarity and competency analyzing data using Stata.

This course fulfills a core requirement. It is designed to help criminology students understand and apply three important components of statistics: descriptive statistics (including probability theory), fundamentals of statistical inference, and regression analysis. I assume that you already have some familiarity with basic descriptive statistics. The emphasis of the classes on descriptive statistics is the calculation and interpretation of summary statistical measures for describing raw data. Further, we will spend much time discussing probability theory since you will spend much of your careers dealing with uncertainty. The sessions on fundamentals of statistical inference are designed to provide you with the background for executing and interpreting hypothesis tests and confidence intervals. The latter portion of the course focuses on regression analysis, a widely used statistical methodology in our field. It will serve to provide you with a beginning flavor of the material you will be learning next semester in CCJS 621. Throughout the course, we will regularly use the statistical software, Stata. Stata is relatively easy to use and no prior experience with coding is required "to get you going."

Course Requirements: Your grades will be based on your performance on the three examinations and your homework assignments, according to the weighting listed below.

Problem Sets **40%**	Everything I know about statistics, I learned doing a problem set. With problem sets, you get out what you put in. Enough platitudes about problem sets? Never. Problem sets will be assigned regularly and will be due at the beginning of the following class unless otherwise noted. You will be permitted to work with your classmates on the problem sets, although you will be responsible for turning in a complete problem set that is entirely your own work. My strong recommendation is that you attempt the entirety of a problem set on your own before you start to work with others. Importantly, I consider problem sets to be professional work product and as a consequence they should always be typed, clearly labeled (and otherwise easy to navigate), and contain polished tables and figures. I will provide a template that you must use to document your code. Problem sets will be graded on a 5-point scale ranging from Phenomenal to Unacceptable. By grading the problem sets in this way, the goal is to take off much of the grading pressure, while still rewarding effort. The worst of the problem sets will not count toward your final grade.
Weekly Cogitation Worksheet **10%**	Every week you will complete a weekly worksheet consisting of two sections: key takeaways and lingering questions. I will provide a template and you must use it to complete your worksheet. Importantly, you **must** complete these notes on your own without consultation from your classmates or anyone else. By requiring you to complete these on your own, I will have a better understanding of how each person is understanding and engaging with the material. Gauging individual understanding will be key to ward against any unpleasant surprises come exam time. The weekly worksheets will be graded on a 3-point scale from Phenomenal to Unacceptable. By grading the notes in this way, the goal is to take off much of the grading pressure, while still rewarding effort. The worst of your analytic notes will not count toward your final grade.
Exams **50%** **Exam 1: 12.5%** **Exam 2: 17.5%** **Final Exam: 20%**	The two midterm exams in this course will be administered in two parts: The *take home* portion of the exam will consist of questions and applications that require you to work with Stata or Excel to answer the exam questions; it will be distributed in lab the week before the exam is due. The *in-class* portion of the exam will be administered in class on the date indicated in the syllabus, unless otherwise noted. The questions on the in-class portion of the exam will not require the use of statistical software. Exam 2 will focus on the material covered since the prior exam. However, statistics by its nature is cumulative. Thus, the latter two exams draw upon prior material and, as a consequence, may be considered cumulative. The final exam is entirely a take-home exam and will cover all of the material in the course, with a strong emphasis on the material since the second exam.

Late/Make-up Assignments: <u>Make sure you complete your assignments on time!</u> Students will automatically lose 1 point on the grading scale for every day that their problem set is late. Problem sets turned in more than 5 days past due will not be considered. Weekly worksheets will lose one point on the grading scale if they are not turned in by the due date. Weekly worksheets more than 1 day late will not be considered.

In the exceptional circumstance that would make exam participation impossible, the student should notify me via email as soon as possible but no later than 1 week prior to the exam in the case of advanced notice and as soon as possible in the event of an emergency proximate to an exam. We will make other arrangements in compliance with University policy and at the instructor's discretion. If there is a circumstance that would require you to miss an exam you must be prepared to provide documentation in accordance with University policy.

Grade Distribution: Final grades will be assigned according to the distribution below. I will round up from .5 to the closest letter grade; for example, an 89.4% is a B+ and an 89.5% constitutes an A-. Students must earn a B or better in this course for progress toward the Master's or Ph.D. in Criminology and Criminal Justice.

A+	97% - 100%	B-	80% - 82%	D	63% - 66%
A	93% - 96%	C+	77% - 79%	D-	60% - 62%
A-	90% - 92%	C	73% - 76%	F	Less than 60
B+	87% - 89%	C-	70% - 72%		
B	83% - 86%	D+	67% - 69%		

Course Expectations:
I expect all students to:
a) Attend class regularly, on-time and prepared to learn!
b) Ask for clarification when you don't know what I am saying. Seriously.
c) Be prepared to answer and ask questions during class. We all learn better when we discuss the material instead of just listening to me talk.
d) Be prepared to participate in in-class activities. These may involve data analysis – so you should come to class with your computer.
e) Attend weekly discussion sections.
f) Come to office hours if you need assistance or if you just want to chat.

Office Hours: I strongly encourage you to take advantage of my office hours throughout the semester. Office hours are a wonderful opportunity for us to get to know each other better and for you to get some personalized learning time. You are more than welcome to come visit me in pairs or in small groups. If you cannot make it to office hours because of a structural impediment, you are welcome to request an appointment. I also strongly encourage you to attend Ben's office hours regularly. He is an incredible resource.

Between my office hours on Tuesdays, Ben's office hours on Mondays, and your lab session on Fridays you will have access to 6 hours of supplemental, student-led learning time outside of class each week. We provide such extensive access to you, because it is often the case that students need quite a bit of assistance mastering this material. That being said, part of the transition to graduate school is that you will need to be proactive about using these resources to your advantage.

Weekly Discussion Section/Lab: Weekly discussion sections are designed to be an opportunity for you to review material from lecture and provide extra guidance for using Stata. Please note that discussion section is not a lecture setting and the content will be largely driven by student questions about current and past material. Like problem sets, you will get out of lab what you put into it. Before lab each week you should do the following:
1. Review class notes and come prepared with questions regarding that material.
2. Review previous problem sets and answer keys and bring your questions.
3. Make sure you have started the current problem set and bring questions to help you complete it. <u>Warning</u>: **Do not wait until discussion section to look at the problem set.**

E-mail and Technology: I will generally respond rather quickly to your emails, but there may be times when I am unable to do so. I ask that you save substantive questions for class or office hours.

Please keep your cell phones off or on silent during class.

You should bring your laptop to class in order to participate in any in-class exercises or at least sit next to a buddy who has one.

Please do not take audio or video recordings of class sessions without my express consent and the consent of your classmates.

Students with ADS Accommodation: If you have a documented condition that requires accommodation in this course, I am willing to make the necessary accommodations. Please contact me immediately but no later than the second week of the semester, so that we can discuss your ADS accommodation letter and how it best fits with this course.

Religious Observances: The University of Maryland policy on religious observances provides that a student will not be penalized because of observances of their religious beliefs; students will be given an opportunity, whenever feasible, to make up within a reasonable time any academic assignment that is missed due to individual participation in religious observances. When possible, assignments should be completed in advance of their due date. If your participation in class will be interrupted by a religious observance you should contact me well in advance to arrange an accommodation.

Names/Pronouns and Self Identifications
The University of Maryland recognizes the importance of a diverse student body, and we are committed to fostering equitable classroom environments. I invite you, if you wish, to tell us how you want to be referred to both in terms of your name and your pronouns (ze, they/them, she/her, he/him etc.). The pronouns someone indicates are not necessarily indicative of their gender identity. Visit trans.umd.edu to learn more.

Additionally, how you identify in terms of your gender, race, class, sexuality, religion, and dis/ability, among all aspects of your identity, is your choice whether to disclose (e.g. should it come up in classroom conversation about our experiences and perspectives) and should be self-identified, not presumed or imposed.

I will do my best to address and refer to all students accordingly and will support you in doing so as well.

Academic Integrity: It is essential that you follow guidelines for originality and attribution in your work. In brief, this means submitting your own work unless otherwise specified and properly citing source material you use to produce your work. A useful resource can be found at: http://deanofthecollege.vassar.edu/documents/originality/originalityandattribution.pdf

The University of Maryland, College Park has a nationally recognized Code of Academic Integrity, administered by the Student Honor Council. The Code sets forth the standards for conduct at Maryland for all students.

It should go without saying that cheating, plagiarism, or other violations of the University of Maryland Code of Academic Integrity will not be tolerated. Potential violations will be reported to the Honor Council. For more information on the Code of Academic Integrity or the Honor Council, see: http://shc.umd.edu/SHC/Default.aspx.

Graduate Course Related Policies and Graduate Student Rights and Responsibilities
The Graduate School has prepared a guide in order to provide you with information about graduate course policies, other policies related to graduate study, and relevant on-campus resources. Your syllabus applies specifically to a given course. The guide at the following link applies in general to your graduate coursework and experience at UMD: https://gradschool.umd.edu/course-related-policies.

Weekly Outline:

Week	Date	Topic	Lecture Notes/ Supplementary Readings	Reminders /Assignments
1	8/27	Introduction & Data Structures	Chapters 1 & 2 / A&F 2.1; (additional 2.2-2.5)	
	8/30	Lab 1		Stata Primer
2	9/3	Measures of Central Tendency & Dispersion	Chapter 3 / A&F 3.2-3.7	**Worksheet 1 Due PS 1 Due**
	9/6	Lab 2		
3	9/10	Distributions	Chapter 4 / A&F 3.1; 4.1-4.3	**Worksheet 2 Due PS 2 Due**
	9/13	Lab 3		
4	9/17	Sampling, CLT & Confidence Intervals	Chapter 5 A&F 4.4-4.6; 5.1-5.3(to p. 117); 5.4	**Worksheet 3 Due PS 3 Due**
	9/20	Lab 4		
5	9/24	Exam 1 Review	Chapters 1-5	**Worksheet 4 Due PS 4 Due**
	9/27	Lab 5		**Take Home Portion of Exam Distributed**
6	10/1	**Exam 1**		**Take Home Portion of Exam 1 Due**
	10/4	No Lab!		
7	10/8	Hypothesis Testing I	Chapter 6 / A&F 6.1-6.7	
	10/11	Lab 7		

8	10/15	Hypothesis Testing II	Chapter 7 A&F 5.3; 7.1-7.6	**Worksheet 5 Due** **PS 5 Due**
	10/18	Lab 8		
9	10/22	Hypothesis Testing III	Chapter 8 / A&F 12.1; 12.4	**Worksheet 6 Due** **PS 6 Due**
	10/29	Lab 9		
10	10/29	Review Exam 2		**Worksheet 7 Due** **PS 7 Due**
	11/1	Lab 10		**Take Home Portion of Exam Distributed**
11	11/5	**Exam 2**		**Take Home Portion of Exam 2 Due**
	11/8	No Lab		
12	11/12	**No Class – ASC**		
	11/15	**No Lab – ASC**		
13	11/19	Measures of Association	Chapter 9 / A&F 9.4 (to p. 272)	
	11/22	Lab 11		
14	11/26	Linear Regression	Chapter 10 / A&F 9.1-9.3; 9.5-9.6	**Worksheet 8 Due**
	11/29	**No Lab – Happy Thanksgiving!**		
15	12/3	Multiple Regression	Chapter 11 / A&F 10.1-10.4; 11.1; 11.3-11.4	**PS 8 Due** **Worksheet 9 Due**
	12/6	Lab 12 – Final Lab!		

16	12/10	**There is no Santa Claus: Cautions in Interpreting Regressions & Final Exam Review**		**PS 9 Due** **Take Home Exam Distributed**
				Take Home Exam Due

NOTE: This syllabus provides a general plan for the course; deviations may be necessary.