University of Maryland
Department of Criminology and Criminal Justice

CCJS 200: Introduction to Statistics in Criminology and Criminal Justice
Fall 2019
Tuesdays and Thursdays, 9:30am-10:45am
2205 LeFrak Hall

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Office Hours	Tue. 11am-1pm	Mon. 1:00pm-3:00pm

Course Description
This course is designed to introduce students to the statistical methods necessary to both produce and consume criminological and criminal justice research. We will discuss the foundational concepts and basic hand-calculations that underlie more complex problems including basic descriptive statistics, probability theory, hypothesis testing, and an introduction to regression. This knowledge will allow students to more fully understand the concepts and techniques discussed in CCJS 300.

A note: This course can be challenging. It is important that you ask questions when you have them, because much of what we do builds upon earlier material. However, I understand that it can be daunting to ask a question in a large lecture hall. While I hope you will be more comfortable asking questions in discussion sections, if you still are not getting the clarification you need, please (please, please) come to office hours for either me or the graduate teaching assistants. The earlier we can solve the problem, the less of a problem it will actually become.

Required Materials
Bachman, R. and Paternoster, R. 2017. *Statistics for Criminology and Criminal Justice*, 4th ed. Sage: Thousand Oaks, CA.
      ISBN: 978-1-5063-2610-8
Calculator - Some form of calculator (**NOT** your phone) is required for exams and lecture examples. A graphing calculator is not necessary, but it must have a square root function to use many of the formulas in this course.

Course Website – Canvas
This course utilizes ELMS to provide easy access to important course information. This web site will include copies of the syllabus, lecture supplements to facilitate in class work, and will also

contain class announcements, which contain information that all students are responsible for knowing. Grades will also be posted on ELMS. You are strongly encouraged to access this web site on a regular basis. To access ELMS, go to http://elms.umd.edu and log in with your Directory ID (login ID) and password.

Class Conduct
It is important, and expected, that you attend all lectures. Exam and problem set materials are drawn from *both* the text and lecture. While you are in class, you are expected to refrain from any disruptive behavior. In addition, I expect the following:
-   No headphones worn or in use during class
-   No cell phone use during class (phones should be set to "do not disturb" or equivalent setting). Inappropriate use of cell phones may mean that you are asked to leave for the remainder of the lecture.
-   Be respectful to me, your TAs and your fellow students
-   Use appropriate language

Laptops or tablets are strongly discouraged for use in this course. The statistical formulas we use will be difficult to type, and Microsoft Equation may be time consuming and distracting during lecture. However, if used, laptops and tablets may be used to take notes *only*. Use of these devices for other purposes during lecture is strictly prohibited, and may result in the loss of use for the duration of the semester.

Discussion Sections
This course utilizes weekly discussion sections to facilitate your understanding of the material. Discussion sections are led by graduate teaching assistants and allow you to ask questions and clarify material taught during the full lecture hall and contained in problem sets. You are expected to go to your *registered* discussion section. If the occasional need to attend a different section arises, you may attend another discussion section **at the discretion of the teaching assistant leading the alternate section**.

Section	Day	Time	Room	TA
0201	R	11:00-11:50a	PHY 0405	Manley
0202	R	12:30-1:20p	SQH 1121	Situ
0203	R	2:00-2:50p	JMZ 0208	Situ
0204	F	12:00-12:50p	ASY 3211	Manley
0205	F	11:00-11:50a	ASY 3203	Manley
0206	F	1:00-1:50p	EDU 3315	Situ

Attendance
Attendance is not required in this course. However, in general, **most people do not learn statistics well from textbooks alone**. For that reason, I encourage students to attend lecture regularly, as well as discussion to get practice applying concepts learned in lecture. To encourage attendance, 10% of your grade is devoted to participation, discussed below. Please note that attendance and participation are not interchangeable terms; attendance does not necessarily earn you a good participation score.

Assignments
This course consists of two types of graded assignments: problem sets ("homework") and exams.
>   *Problem Sets* are available on the course website and to be handed in *at the start of lecture/discussion on the day they are due*. These assignments are designed to prepare you for timed assessments and consist of similar problems that you may encounter during exams. Rather than having weekly assignments, there will be four problem sets due one week before each of the exams. These problem sets will be returned, graded, in the discussion section before an exam. You may collaborate on problem sets, but are expected to show full work. Because this class is explicitly designed to teach you the underlying mathematical processes of statistical output, **problems without work shown will be reduced by 50% of the problem's worth for correct answers, and will receive 0 points for incorrect answers**.

>   *Exams* are closed book/note, but you will be provided with a formula sheet containing most of the formulas necessary to solve the problems on the exam. The formula sheets will be available on ELMS prior to the exam so that you know what you do (and, conversely, what you do not) need to spend time memorizing.

>   ***Note on partial credit:*** In all possible cases, students arriving at an incorrect final answer will receive partial credit for the parts of the problem they completed correctly. Incorrectly transcribing or multiplying numbers, for example, should result in only a small portion of points lost. You may see notations like "CPE" or "BPE" on graded assignments, noting that your answer is "correct based on previous error" or "based on previous error." However, this requires that you <u>show your work</u>. Be detailed. Overly detailed, if you must. This will allow me and the TAs to follow your thought processes and give you credit where credit is due.

Participation
Participation in this class is worth 10% of your total grade, and has a possible value of 20 points. Those 20 points are allocated as follows:
*   Participation in discussion. At the beginning of each discussion section, TAs will distribute a discussion problem set related to the material discussed. During the discussion section TAs will work through the problems with the class. At the end of the class, students will turn in these sheets for all-or-nothing completion grades. These will be returned to students at discussion the following week. Students will receive up to 20 points based on the proportion of these assignments marked complete.

Extra Credit
I reserve the right to offer extra credit assignments to the class as I see fit. If and when I choose to do so, I will both discuss the opportunities in class and make the details of the assignments available on the course website. Included in these details will be the requirements of the assignment, the range of points that may be earned, and the specific attribution of those points in final grade calculations.

Grading

Your course grade will be determined by the following weights:

Problem Sets – 30%
Exam I – 15%
Exam II – 15%
Exam III – 15%
Final Exam – 15%
Participation – 10%

The following number system will be used to generate final grades:

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

Grade Disputes
If you have questions or concerns about your grade(s) and believe that I should review them, you should submit a written request over email to me describing your concern in detail. This request must be submitted within 48 hours of the date that grades for that assignment are distributed.

Instructor Policy on Makeup Exams, Assignments, Etc.
If you miss class or lose your notes, you should copy notes from a classmate, or come see me for a brief overview of what you missed

Problem sets should not be turned in late, and will be subject to a penalty of a 10% grade reduction if submitted within 6 hours of the deadline, plus an additional 10% for every 6 hours after. Late assignments must be time stamped either via email or using the punch in the CCJS main office.

Makeup exams and problem set extensions will only be given in cases of excused absences and official documentation is required. Excused absences are: illness with a doctor's note, death in the immediate family, required University activities, and required court appearance. If you go to the Health Center and a doctor will not write you a note, you will need to get a copy of your medical record from them to verify your illness. By law, you are entitled to get a copy of this and it is your responsibility to do so. Official written documentation should verify the dates of treatment and the time period during which the student was unable to meet academic responsibilities. Consistent with University Policy, you are allotted one honor code health related excuse per semester, though it cannot be used for a major grading event (i.e., exams or problem sets due).

I must be notified in person, e-mail, in writing, or by phone *prior* to missing an exam. Travel plans, except as related to excused absences, are not valid reasons for needing to reschedule an

exam. If circumstances warrant, I may choose to issue you a makeup exam, which will be a combination of essay and traditional questions. If you know in advance that you will be absent for an exam with an approved absence, you will be expected to take the exam prior to the exam date. If you have a problem on the day of an exam, email me immediately (alehman@umd.edu). **TAs cannot and will not approve extensions or makeup requests.**

It is the student's responsibility to inform the instructor of any intended absences for religious observances in advance; prior notification is especially important in connection with final examinations, since failure to reschedule a final examination before the conclusion of the final examination period may result in loss of credits during the semester. I will make every feasible effort to accommodate students' requests based on attendance of religious observances.

Special Accommodations
Students with a documented disability or other situation requiring academic accommodations should see the instructor within the first two weeks of the semester (by September 15, 2019). Students having academic difficulty are also strongly encouraged to consult with the instructor as early as possible.

Academic integrity
Academic integrity is an absolute requirement. Dishonesty in any form will not be tolerated. The University of Maryland, College Park has a nationally recognized Code of Academic Integrity, administered by the Student Honor Council. The University of Maryland Honor Pledge reads:

"I pledge on my honor that I have not given or received any unauthorized assistance on this assignment/examination."

This Code sets standards for academic integrity at Maryland for all undergraduate and graduate students. Students are responsible for upholding these standards for this course. It is very important for you to be aware of the consequences of cheating, fabrication, facilitation, and plagiarism. For more information on the Code of Academic Integrity or the Student Honor Council, please visit http://www.shc.umd.edu. Suspected violations will be dealt with seriously and promptly.

Copyright
The lectures I deliver in this class and the course materials I create and distribute are protected by federal copyright law as my original works. My lectures are recorded or delivered from written lectures in order to ensure copyright protection. You are permitted to take notes of my lectures and to use course materials for your use in this course. You may not record, reproduce, or distribute my lectures/notes for any commercial purpose without my written consent. Persons who sell or distribute copies or modified copies of my course materials, possess commercial copies of my notes (i.e. Terpnotes), or assist another person or entity in selling or distributing those materials may be considered in violation of the University Code of Student Conduct, Part 9(k).

Course Evaluations

Please take the time to complete the course evaluations during the open window. I will send a reminder email when the evaluations are available.

University Policies
Please refer to the website on University of Maryland course policies and student rights maintained at the following address: http://www.ugst.umd.edu/courserelatedpolicies.html

Course Schedule
Below you will find a tentative schedule for the course. I will do my best to keep to this schedule as closely as possible. All exams will be given on the dates indicated. In the event the University is closed on a scheduled exam date (e.g., weather emergency) the exam will be given on the next day that class meets.

LECTURE	DATE	TOPIC	DUE
		Descriptive Statistics	
1	27-Aug	Introduction	Chapter 1
2	29-Aug	Types of Data, Levels of Measurement	Chapter 2
3	3-Sep	Graphing Data	Chapter 3
4	5-Sep		
5	10-Sep	Measures of Central Tendency	Chapter 4
6	12-Sep		
7	17-Sep	Measures of Dispersion	Chapter 5
8	19-Sep		
		Probability	
9	24-Sep	Rules of Probability	**Problem Set I DUE** Chapter 6 (pp 146-157)
10	26-Sep	The Z Distribution	Chapter 6 (pp 167-180)
****	1-Oct	**Exam I - Descriptive Statistics**	
11	3-Oct	Sampling Distributions	Chapter 7
12	8-Oct	Point Estimates and Confidence Intervals	Chapter 7
13	10-Oct		
		Hypothesis Testing	
14	15-Oct	Introduction to Hypothesis Testing	**Problem Set II DUE** Chapter 8
15	17-Oct	Two Population Means	Chapter 10
****	22-Oct	**Exam II - Probability**	
16	24-Oct	Two Population Proportions	Chapter 10
17	29-Oct	Three or More Means	Chapter 11

LECTURE	DATE	TOPIC	DUE
18	31-Oct		
19	5-Nov	Two Categorical Variables	Chapter 9
20	7-Nov		
21	12-Nov	Two Continuous Variables	**Problem Set III DUE** Chapter 12
	14-Nov	**No Lecture – ASC Meeting**	**ASC 13th – 16th**
****	19-Nov	**Exam III - Hypothesis Testing**	
	21-Nov		
		Introduction To Regression	
22	26-Nov	Two Continuous Variables (Cont'd)	
23	28-Nov	**No Class - Thanksgiving**	Chapter 12
24	3-Dec	Regression	**Problem Set IV DUE**
25	5-Dec	Regression, Review	
****	12-Dec	**Final Exam – 8:00am-10:00am**	