

Spring 2024 Online Asynchronous



Course Instructor:	Dr. Caitlin S. Ducate
Email:	<u>cducate@tamusa.edu</u>
Office:	CAB 349A
Student Hours:	Tuesdays and Thursdays from 11am-12pm and by appointment
	Sign up via <u>Calendly</u>

## **Course Description:**

This course is an introduction to social science statistics used in criminological and criminal justice research. Through this course, you will learn how to summarize data, draw inferences about data, and test hypotheses with data. You will also learn how to use the statistical programming language R.

## **Course Objectives:**

By the end of this course, you should be able to:

- 1. Summarize the properties of a sample using descriptive statistics
- 2. Infer features of a population using inferential statistics
- 3. Summarize and infer the relationships between variables
- 4. Conduct appropriate statistical technique(s) for a given variable or set of variables, using the statistical program R, and interpret the output

#### **Required texts:**

Bachman, R. D., Paternoster, R., & Wilson, T. H. (2021). *Statistics for criminology and criminal justice* (5<sup>th</sup> Ed.). SAGE Publications.

#### **Recommended texts:**

Gillespie, B. J., Hibbert, K. C., & Wagner III, W. E. (2020). *A Guide to R for Social and Behavioral Science Statistics.* SAGE Publications.

## Course Requirements & Grading:

Points for the course are allocated as follows:

Final Exam:	100 points
Total	800 points

## Assignments.

- There will be fourteen (14) assignments worth 50 points each.
- Assignments will cover both theoretical and practical content from the course readings, lectures, and videos.
- Assignments will be submitted online via Blackboard. The assignment for each week will "unlock" (i.e., become available) on Monday and be due by **Sunday at 11:59pm**.

## Final Exam.

- There will be one cumulative final exam worth 100 points.
- The exam will be administered via Blackboard. It will be available to complete from Monday (04/29) at 8am CST to Wednesday (05/01) at 11:59pm CST. Once you begin the exam, you cannot pause it.
- Because it is online, it is open-book, but you are expected to complete these exams *independently*—you may not work with a partner.

## Late work.

- Work will be penalized 5 points (10%) for every day that it is late.
- Late work can only be submitted within one week of the due date (except in extenuating circumstances as determined by the instructor)

Letter Grade **Grade Range** Description А 90-100 Excellent В 80-89 Good С 70-79 Average D 60-69 Passing F > 60Failure Failure (Non-Attendance) FN > 60

Table 1. TAMUSA letter grade ranges and descriptions

#### **Communication Policies**

**Contacting Me.** To get in touch with me, email me at <u>cducate@tamusa.edu</u>. <u>Please</u> <u>include the course number (CRIM 5305) at the beginning of the subject</u> of the email and use <u>proper email etiquette</u>. Do not use Blackboard messages. I usually check my email twice a day between 10am and 4pm on weekdays and do not check email on the weekends. If I have not responded to your e-mail within 24 hours (excluding Sat and Sun), please send another e-mail with a reminder.

Students who do not send professional emails will receive a **form email** in response encouraging them to revise their email to be more appropriate. This is not because I'm a jerk—it is because it is good professional development and makes it easier for me to answer your question quickly.

Before you send an email, please see the following checklist. Have you...

- $\Rightarrow$  Ensured that the answer to your question cannot be found in the syllabus or supporting documents?
- $\Rightarrow$  Put **CRIM 5305:** followed by a simple summary in the subject line (e.g., CRIM 5305: Question about Assignment 4 Part 3)?
- $\Rightarrow$  Opened your email with a salutation (e.g., Hello Dr. Ducate)?
- $\Rightarrow$  Begun your opening paragraph on a new line?
- $\Rightarrow$  Ensured that your question is clear and to the point?
- $\Rightarrow$  Ended your email with a **closing** (e.g., Thank you,)?
- $\Rightarrow$  **Put your signature** (i.e., your name) on the line below the closing?
- $\Rightarrow$  Ensured that you used proper spelling and grammar?

Blackboard. I make heavy use of Blackboard in this class for both uploading material and communicating information and reminders. Most communication from me will be through Blackboard Announcements. You are responsible for keeping up with Blackboard notifications, so please check it daily.

Office (i.e. Student) Hours. I hold weekly office hours to allow students to come ask questions about material they are struggling with. My office hours for students are on **Tuesdays** and **Thursdays from 11am-12pm** and by appointment. You can book meetings with me via Calendly. My Calendly link is: <u>https://calendly.com/csducate/office-hour-appointment</u>. To book a meeting, simply follow the link and select a day and time. If you choose to meet online, it will then provide you with a personalized Zoom link to use for the meeting. If you choose to meet in person, then come see me in my office on the day and time you select.

You must book your appointment at least 16 hours in advance. If none of the available times work with your schedule, email me to work out a time. I do my best to work with students to

find a mutually beneficial time, but it is the student's responsibility to ensure they have some availability during normal working hours (i.e., 8am-5pm).

This is a difficult course, so **I encourage you to attend office hours**. However, I expect you to come prepared. This means you should **come with** *clear* **questions** about the material you do not understand. If you have questions about the assignments, you must have the assignment open and with the work you've already tried available for me to review. Be sure you attend Zoom meeting with a laptop so that you can share your screen.

## Work and Submission Policies

Academic Integrity. As a TAMUSA student, I expect you to follow the Student Code of Conduct (see Section 14 of the <u>Student Handbook</u>). When you submit an assignment with your name on it, you are signifying that the work contained therein is yours and only yours unless otherwise cited or referenced. This includes both online assignments and exams.

Note that you may use AI technologies, such as ChatGPT, only in the form of a tutor. In other words, you can use it as a resource the same way you would use me as a resource. You cannot, therefore, ask it to answer specific assignment questions for you or submit any of its answers as your own. You may also study together with fellow classmates. You are allowed to help each other troubleshoot coding errors, provide advice, or understand the material, but the final submitted work must be your own.

To ensure academic honesty, you will be expected to be able to **defend your work**. This means that you need to be able to explain your answer live and in your own words. If I suspect plagiarism or cheating of any kind, I reserve the right to question you about your knowledge of your submitted work. When a student is suspected of plagiarism or cheating, they will receive a **temporary 0** on the assignment until they arrange a meeting with the professor to discuss the assignment.

Students caught cheating or plagiarizing will fail the assignment on the first strike and fail the class on the second strike. Students will also be reported to the university on the first strike in accordance with TAMUSA policies.

**Missed Work.** I also realize that you may be living in a situation unconducive to studying, you may have care obligations, you may be working, etc. Although I expect you to try to manage **known** problems, some problems are hard to predict in advance. If you miss an assignment due to an unforeseen problem and would like accommodations, you need to let me know *within 24 hours* of the missed assignment unless you are physically unable to. In many cases, I may allow you to make up the work without a penalty, but you *must* let me know the reason for the missed work first. If you do not, the standard late work policy will apply.

**Contesting grades.** Students will have <u>1 week</u> to contest grades beginning on the day they are released. After that time period, all grades are final.

#### **Other Policies**

Attendance. Although this class occurs asynchronously online, your participation will be monitored weekly via the weekly work. For purposes of financial aid, etc., faculty are required to report nonattendance to the registrar's office. If you do not participate regularly in the course, you may be dropped administratively by either myself or the registrar's office.

**Technical issues.** Technical and logistical problems, such as being unable to access a computer, computer failure, problems with internet connections (such as speed or quality of the connection) or browser, failure to check that your assignments have properly uploaded, etc., will not automatically result in remedies favorable to students. Even if the technical or logistical problem is not your fault, you are not guaranteed a retake or "do-over" for the assignment. Any such issues are dealt with on a case-by-case basis. Further, *to avoid last minute problems*, it is highly recommended that you complete readings, videos, and assignments as *early as possible* during each module.

If you have a question about using Blackboard as a student, **please check the help page first**: <u>https://tinyurl.com/tamusastudentbbhelp</u>. If you have difficulty accessing Blackboard or using, please contact IT here: <u>https://www.tamusa.edu/information-technology-</u><u>services/index.html</u>. You can also **call them** at (210) 784-4357.

#### **Expectations:**

**Independent Problem-Solving.** It is my job to teach you, but it is your job to learn. Part of learning, especially when coding, involves trying to solve problems yourself. As such, **I expect you to become comfortable using Google to search for solutions to problems**. In fact, most of being a good coder is just Googling problems. I have been coding in R for years, and I still rely heavily on Google: "Move column to end of dataset R," "Merge dataset R." If you find yourself constantly Googling when coding, that means you are doing something right.

**Perseverance.** Both data analysis and programming in R come with steep learning curves. *Everyone* struggles at first. As Master's students, I expect you to not be deterred by the initial discomfort you will inevitably experience at first. Instead, I expect you to persevere in the face of the discomfort, to wrestle with the material until it finally makes sense. **Anyone can learn statistics**; it just requires **practice**.

**Passion**. I do not expect this to be your favorite class (though I will be delighted if it is!). However, as Master's students, I expect you to have passion for the field of criminology and criminal justice. That means I hope and expect you to bring you're A-game to this class—not because it is your favorite class, but because you are passionate about being the best student you can be.

# **Technology Expectations**

**Tools.** Students are expected to have the following technological tools:

- A functional and reliable laptop or desktop—CANNOT be a Chromebook, tablet, or mobile phone
  - Need to be able to run newer versions of Windows 10 or MacOS X. For Macs, you need a MINIMUM of Mac OS 10.13, but I recommend you have at least Mac OS11.
- A web camera (for office hour meetings if using Zoom)
- An email client
- A PDF reader (e.g., Adobe Acrobat)
- Microsoft Office 365 (especially Microsoft Word)
  - Note: TAMUSA students can use MS365 for free. Log in to their online portal here.

**Skills.** Students are also expected to have the following technological & digital literacy proficiencies:

- Using Blackboard
- Using email
- Downloading files from the Internet
- Installing programs to their computer
- Understanding how their files are organized on their computer
- Creating and submitting documents using .doc or .docx formats
- Downloading and reading PDFs from Blackboard
- Using web conferencing tools and software (e.g., Zoom)

# **Course Schedule:**

This course schedule is tentative and subject to change. All changes will be announced via Blackboard. Chapters listed refer to the required book, Statistics for Criminology & Criminal Justice (5th Ed.). Additional required materials (e.g., readings, lectures, videos) will be posted on Blackboard.

WEEK	DATE	TOPICS	READING	WORK DUE	
1	01.16 - 01.21	Intro to Course; Installing R & RStudio		Assignment 1	
2	01.22 - 01.28	Intro to R & RStudio	Chapter 1	Assignment 2	
3	01.29 – 02.04	Sampling and Aggregation	Chapter 2	Assignment 3	
4	02.05 – 02.11	Data Distributions and Graphing	Chapter 3	Assignment 4	
5	02.12 – 02.18	Measures of Central Tendency	Chapter 4	Assignment 5	
6	02.19 – 02.25	Measures of Dispersion	Chapter 5	Assignment 6	
7	02.26 – 03.03	Probability Theory; Hypothesis Testing	Chapter 6	Assignment 7	
8	03.04 – 03.10	Review Week		Assignment 8	
9	03.11 – 03.17	NO CLASS – SPRING BREAK			
10	03.18 – 03.24	Point Estimation; Confidence Intervals	Chapter 7	Assignment 9	
11	03.25 – 03.31	One Population Hypothesis Tests	Chapter 8	Assignment 10	
12	04.01 – 04.07	Hypothesis Tests with Categorical Data	Chapter 9	Assignment 11	
13	04.08 – 04.14	Two Population Hypothesis Tests	Chapter 10	Assignment 12	
14	04.15 – 04.21	Bivariate Correlations & Linear Regressions	Chapter 12	Assignment 13	
15	04.22 – 04.28	Future Directions & Review		Assignment 14	
16	04.29 – 05.01	Final Exam		Final Exam due May 01 at 11:59PM	