

CRM/SOC 301 Data Analysis
Section 1 – MWF 12-12:50
Dr. Mike Maume
Bear 120 / Hours: MW 3:35-4:45
TA: Robin Pascoe, BA
Web: learn.uncw.edu

Catalogue Description:

Prerequisite: CRM/SOC 300 and MAT 111 (or a more advanced MAT course, or a score of 4 or higher on the UNCW MAT placement test). Instruction in computer-assisted univariate and bivariate analysis and interpretation of social science data. This course satisfies the department computer competency requirement. Partially satisfies University Studies: Quantitative and Logical Reasoning.

Course Objectives:

At some point you may have asked yourself, or your adviser, “Why do I need to take this course?” Depending on your career aspirations, you may think that there is no good reason to take this course. If so, I hope to at least disabuse you of that notion by the end of the first week of classes. Both sociology and criminology are academic disciplines in the social sciences, and, as such, rest on a body of theory and methods necessary to deal with the questions and problems dealt with by these fields. Although you may never actually conduct a social scientific study in your lifetime, the skills you will gain from the successful completion of this course are useful for a great number of occupations.

In this course, you will learn how to do data analysis using both Microsoft Excel and SPSS (Statistical Package for the Social Sciences). SPSS is easily the most commonly used statistical software package used by those who work with data on people – not only sociologists, criminologists and psychologists, but also pollsters, market researchers, program evaluators, policy analysts, and employees in local, state and federal agencies.

Many sociology and criminology students dislike math and dread statistics. Although we will deal with numbers, this is not a mathematics course. Instead, this course is about how to use statistical techniques to produce and interpret social science evidence. Learning these techniques will require learning some formulas and doing some calculating; however, the main objective is to build your critical-thinking skills by learning techniques to analyze data and to explore the logic of quantitative decision-making in the social sciences. I sincerely expect that many of you will find this course to be useful—perhaps even fun!

Learning Objectives:

The student will be able to:

1. Create, solve and interpret basic quantitative social science research questions and hypotheses, as well as be able to analyze statistical results in scholarly research and popular media.
2. Make sound arguments based on statistical reasoning and careful analysis of data using commonly used quantitative data analysis techniques.
3. Effectively communicate the substance and meaning of research problems and findings.

Required Text:

Walker, Jeffrey T. and Sean Maddan. 2013. *Understanding Statistics for the Social Sciences, Criminal Justice, and Criminology*. Companion website available – see access code in book. Please bring the textbook with you to every class.

Computing:

It will not be necessary to purchase software for this course. We'll be using the freely-available software available on the classroom's PCs and on UNCW's cloud system (see: www.uncw.edu/ITSD/help/tealware.html). All datasets used in the course and for assignments will be available on the course website (learn.uncw.edu). Also, please check the course website before coming to class each week. I will use the website to post homework assignments and grades, and to distribute course "handouts."

Please bring a flash drive (USB key) to every class, and/or learn how to upload and download files to your Timmy folder (see: uncw.edu/ITSD/learning/TimmyFileStorage.html).

Exams:

There will be three exams in the course, which will each be worth 20% of your final grade. Exams will be a combination of short answers and short essays (interpretation of problems).

Homework:

There are 5 homework assignments worth 25% of your final grade. Handwritten assignments will not be accepted. Late assignments will receive no credit. Homework assignments are designed to serve course learning objectives and assist in preparing for exams.

Attendance:

Attendance will be taken each class. Four unexcused absences will result in the loss of credit equivalent to as much as one full letter grade. Grade reductions will increase with additional absences. Attendance is worth 15% of your final grade.

In accordance with S.L. 2010-211, you are entitled to two excused absences for religious observances per academic year. You must inform me in writing the first week of class if you will be missing any classes due to religious observance and using one of the two permissible absences for the academic year. In addition, please inform the Registrar the first week of class who will then confirm your intentions to miss class with the impacted course instructors. Any absence for religious purposes will be considered unexcused unless you submit the request in writing the first week to both me and the Registrar.

Grading:

Exams	60%
Homework	25
Attendance	<u>15</u>
	100%

A > 93%	B+ 87% - 89%	C+ 77% - 79%	D+ 67% - 69%	F < 60%
A- 90%- 93%	B 83% - 86%	C 73% - 76%	D 63% - 66%	
	B- 80% - 82%	C- 70% - 72%	D- 60% - 62%	

Extra credit is not available in this class

Course Schedule:

<u>Dates</u>	<u>Topic / Reading Assignment</u>	<u>Homework Due</u>
Aug 20-22	Introduction / Foundations of statistics	
Aug 25-29	Variables & measurement / Ch. 1	
Sep 1	Labor Day Holiday	
Sep 3-5	Graphing data / Ch. 2	
Sep 8-12	Central tendency / Ch. 2	HW 1 due Sep 8
Sep 15-19	Dispersion / Ch. 3	
Sep 22	Exam 1	
Sep 24-26	Distributional forms	
Sep 29-Oct 3	Normal distribution and z scores	HW 2 due Sep 29
Oct 6-10	Bivariate tables & analysis / Ch. 4	
Oct 13	Fall Break	
Oct 15-17	Bivariate statistics-nominal and ordinal / Ch. 5	HW 3 due Oct 15
Oct 20-24	Bivariate statistics-interval/ratio / Chs. 6 & 7	
Oct 27	Exam 2	
Oct 29-31	Inferential statistics / Ch. 8	
Nov 3-7	Hypothesis testing / Ch. 9	
Nov 10-14	One-sample t-tests and confidence intervals	HW 4 due Nov 10
Nov 17-21	Two-sample t-test / Ch. 10	
Nov 24	Multivariate analysis / Ch. 11	HW 5 due Nov 24
Nov 26-28	Thanksgiving vacation	
Dec 1-3	Multivariate analysis and journal article reading / Ch. 12	
Dec 5	Final Exam 11:30-2:30	

Syllabus Changes:

I reserve the right to change any part of this syllabus and/or the course requirements.

Announcements will be made in class concerning any changes. These changes will be made in advance of any examination, and will generally be made to the benefit of the class as a whole.

Expectations:

What you may expect of me:

- A sincere effort to help you learn the course material. I will spend enough time and effort in class preparation to make the material as understandable as I possibly can. In other words, I will do my homework.
- Accessibility: I will be available to you outside of class should you desire help, clarification, etc. Although I may be busy at the time you initially approach me, I will gladly set a time and place to meet with you.
- Attention/Courtesy: When you are speaking, you will have my undivided attention. Also, I will never ridicule you or express disagreement with you in an impolite fashion.
- Fairness: Your grade will be based upon what I detect that you have learned. It will not be based upon any purely personal consideration or by whether you and I agree about an issue. I will explain my reasoning in evaluating your progress, but I will not negotiate grades.
- Honesty: When I'm telling you the facts as sociological methods reveal them, I will do so as accurately as I'm able. When I don't know the answer to your question, I'll say so.

What I will expect of you:

- ❑ A sincere effort to learn the course material.
- ❑ Careful and complete reading of the assignments.
- ❑ Attention/Courtesy: Just as I will not be inattentive or impolite to you, I will not tolerate inattention or rudeness either to me or to other students. When I am speaking to you and to the rest of the class, I expect to have your undivided attention.
Although I prefer a comfortable and informal atmosphere in my courses, I will expect you to make every effort to arrive for class on time, and I expect you to remain in the classroom throughout the class period (unless, of course, you are feeling ill). Unless we're doing lab work, it is distracting to me and to others when a student steps out for a drink of water or to use the restroom. Take care of these things before class begins.
Please silence your cell phone and do not make calls, access apps, or text during class. In addition, please do not use the classroom PC's unless the activity warrants. We will use these computers in selected activities, and they are permissible then.
- ❑ Promptness: You should be in class on time except when delayed by an emergency, and you should comply with all due dates.
- ❑ Honesty: Assignments or exams that borrow from others without proper acknowledgment and citation will result in a minimum grade of F on the paper or exam, and at maximum will result in a grade of F in the course and a referral to the Dean of Students. Thus, you should make every effort to familiarize yourself with the various forms of misconduct and dishonesty listed in the Academic Honor Code (as covered in the Student Handbook): ignorance is not an excuse!

Additional notifications:

1. THE UNIVERSITY LEARNING CENTER; DePaolo Hall 1056 & 1003, first floor; 910.962.7857; www.uncw.edu/ulc

The University Learning Center's (ULC) mission is to help students become successful, independent learners. Tutoring at the ULC is NOT remediation: the ULC offers a different type of learning opportunity for those students who want to increase the quality of their education. ULC services are free to all UNCW students and include the following:

Learning Services (University Studies) www.uncw.edu/ulc/learning/index.html

Math Services www.uncw.edu/ulc/math/index.html

Study Sessions www.uncw.edu/ulc/includes/StudySessions.html

Supplemental Instruction www.uncw.edu/ulc/si/index.html

Writing Services www.uncw.edu/ulc/writing/index.html

2. All members of UNCW's community are expected to follow the academic **Honor Code**. Please read the UNCW Honor Code carefully (as covered in the UNCW Student Handbook and available here: www.uncw.edu/odos/honorcode/). Academic dishonesty in any form will not be tolerated in this class, will be reported to the Dean of Students and will result in a failing grade for assignment and (perhaps) the semester.

3. Students with diagnosed disabilities should contact the **Office of Disability Services** (962-7555). Please give me a copy of the letter you receive from Office of Disability Services detailing class accommodations you may need. If you require accommodation for test-taking, please make sure I have the referral letter no less than three days before the test.

4. UNCW practices a zero tolerance policy for any kind of violent or harassing behavior. If you are experiencing an emergency of this type contact the police at 911 or UNCW CARE at 962-2273. Resources for individuals concerned with a violent or harassing situation can be located at www.uncw.edu/wsrc/crisis.html.