



University of Massachusetts, Amherst

Elementary Statistics

Spring, 2020

Course Syllabus

Professor:	DaShanne Stokes, Ph.D.
Contact:	Office at Thompson, Room 910, or email dstokes@umass.edu .
Meets:	Tuesdays and Thursdays 10:00 – 10:50 a.m.
Office Hours:	2:30 – 3:30 p.m. Tues and Thurs or by appointment.
Teaching Assistant:	Billings, Katie krbillings@soc.umass.edu

Welcome to Elementary Statistics!

This interactive course is open to all undergraduates who wish to explore how to do sociology by using statistics in a dynamic environment. Statistics gives us a powerful tool with which we can cut through the hype and propaganda that is so often thrown at us by biased interests. With statistics, we can find new ways to critically analyze events and find solutions to many of today's most pressing social problems. I anticipate having a great time in class together, so I welcome you to the class!

Course Description

This course will give you an introduction to basic statistics employed in the sociological analyses, covering descriptive statistics, probability, sampling distributions, inferential statistics, tests of significance, contingency tables, measures of correlation, and more. Note that while the course does not have any prerequisites, it is recommended that students take the course after having acquired a strong working familiarity with high school level algebra (as noted in University minimum admission requirements) as those without basic math skills can expect not to do as well without the basic math skills upon which statistics is based.

Course Goals

This course will provide students with an introduction to the basic statistical techniques used by social scientists. It will emphasize the interpretation of statistics as well as their calculation. These methods are important because they can help us understand social life and social organization. As such, we will place special emphasis on relationships between variables.

Course Materials

Required: Course Syllabus: This is REQUIRED reading from beginning to end.

Additional course policies will be posted on Moodle. These also are REQUIRED reading from beginning to end.

Salkind, Neil J. 2016. *Statistics for People Who (Think They) Hate Statistics*. 6th Edition. Thousand Oaks, CA: Sage Publications.*

*NOTE: All assigned readings refer to this textbook.

Strongly recommended: Salkind, Neil J. 2016. *Statistics for People Who (Think They) Hate Statistics: Using Microsoft Excel*. 4th Edition. Thousand Oaks, CA: Sage Publications.

Optional, but helpful: Salkind, Neil J. 2016. *Study Guide to Accompany Neil J. Salkind's Statistics for People Who (Think They) Hate Statistics*. 6th Edition. Thousand Oaks, CA: Sage Publications.

Books can be obtained through sites like www.amazon.com, www.ebay.com, or www.barnesandnoble.com. Please be sure when ordering online to allow for shipping times, which may vary and may pose unexpected delays (e.g., a shipping time of “standard” usually means it will be shipped “book rate,” which may take three to four weeks or more). **Readings will be posted on Moodle.**

CLASS POLICIES

The following course policies are presented as a brief snapshot of policies in effect for this course. Additional policies that are a part of and extension to the syllabus are required reading and are posted on Moodle. Failure to read these additional policies does not excuse you from responsibility for knowing these policies or from their being enforced as part of this syllabus.

Our Class is a Safe Space

Everyone will be treated with dignity and respect regardless of disability, age, race, culture, gender, sex, social class, religion, politics, and sexual orientation. There will be “zero tolerance” for any form of prejudice, discrimination, or bigotry. Please respect each other accordingly.

Attendance

Following proven best practices, your lectures are not meant to provide exhaustive or complete coverage of every topic we explore together, but instead to provide a wider context in which to deepen your understanding and develop your ability to think with statistics to critically examine the world around you. You are expected and **required to attend all lectures and all discussion sections** led by teaching assistants. Please show others courtesy by arriving on time so as to not be disruptive. As students taking this course are adults, I do not expect attendance to be a problem. Failure to attend class does not excuse students from their responsibilities for in-class quizzes, announcements or any changes to materials, readings, assignments, exams, schedules, etc. announced in class. Just like working at a job, please do not skip attendance and expect a good result.

Participation

Different cultures participate differently, and this course is meant to provide a safe, fun, and engaging atmosphere in which everyone is invited to participate regardless of their opinions, backgrounds, or how

well they know the material. This means you are not required to speak and ask questions in every class so long as you actively pay attention, actively participate with your colleagues, and do not use your cell phone unless explicitly invited to do so. It is expected that you will show the utmost respect to your colleagues and will come to class prepared with questions, comments, and observations ready for classroom discussion. You will only get out of this class as much as you put in; I therefore encourage you to participate because active participation is one of the best ways to help you learn the material and generate the kind of grades you may desire.

Readings

You are expected to read the week's lecture readings before coming to lecture that week. I strongly recommend you take notes on the readings. All content from readings may appear on your quizzes, homework, and exams even they are not lectured about during lectures or discussion sections. As with most courses, the majority of your learning will take place *outside* the classroom as you study, complete assignments, work with your peers, and critically engage the activities, assigned readings, and lecture materials.

Open-Door Policy

My goal as is to help you; therefore I maintain an open door policy. I encourage and welcome you to email me or stop by my office to say hello, to ask questions, to make comments or suggestions, learn about research opportunities, or to discuss your work, general direction, or plan of study. I enjoy getting to know students of all backgrounds and look at visits as an opportunity to learn, have fun, and be of service. If you are unable to attend my regular office hours, please contact me to make arrangements.

Workload

Many universities view 2-3 hours of study time for every hour spent inside class as a good rule of thumb in determining how much time to invest in studying. As this is a four hour course, you should plan to spend about 8-12 hours each week completing readings, quizzes, assignments, etc. It is your responsibility to work in advance of designated test dates and assignment due dates and to contact me for assistance if you are having difficulties. I am happy to arrange for office hours and discussions in advance of deadlines and test dates. Last-minute requests are harder to meet and will find me less sympathetic.

Academic Integrity

Cheating, plagiarism, etc. will not be tolerated and infractions will be coordinated with the Academic Honesty Office. Students are expected to comply with the policy on Academic Honesty (https://www.umass.edu/honesty/sites/default/files/academic_honesty_guide_for_students.pdf).

Academic Assistance

People learn in many different ways. If there are ways I can support your learning, please contact me, the sooner the better. Disability Services also offers additional resources. If you have a disability and would be helped with certain accommodations, please register with Disability Services (161 Whitmore Administration building, 413-545-0892, or www.umass.edu/disability). The Writing Center, found at the WEB DuBois Library, is also a useful resource (<https://www.umass.edu/writingcenter>).

Email

Each student is issued a University e-mail address. This e-mail address may be used by your instructors and the University for official communication. Students are expected to read e-mail sent to this account on a timely and regular basis. Failure to read and react to these University communications does not absolve the student from knowing and complying with the content of communications. It is your responsibility to set up e-mail forwarding to access your email via other services if you choose, though

forwarding is at your own risk. If e-mail is lost as a result of forwarding, it does not absolve the student from responding to official communications sent to their University e-mail address.

I will do my very best to reply to emails as quickly as possible. Please understand, however, that there is only one of me to respond to the emails of hundreds of students and I am unable to work twenty-four hours a day or seven days a week. Quality instruction and giving you my very best requires a reasonable work-life balance; therefore my response to emails will be very limited and sporadic on evenings, weekends, breaks, and holidays. Please be sure to take this into consideration when planning your schedule and activities (e.g., start early and work to finish ahead of time to manage unforeseeable delays life may throw at you). Please also contact me with any questions you have well before due dates, exams, quizzes, etc. (especially not the night before) so that I can best help you.

Please be sure to add my email address to your “safe” list so that it is not lost. Please also be sure to regularly check your “junk” folder as emails can sometimes get routed to such folders and students are not exempt from the content of emails due to their being routed to junk folders.

Audio and Video Recording and Photography Policy

To ensure the free and open discussion of ideas and opinions, students **MAY NOT PHOTOGRAPH OR RECORD** classroom lectures, discussions, and/or activities in whole or in part without the advance written permission of the instructor, and any such recording properly approved in advance can be used solely for the student’s own private use and cannot be published, stored, copied, repurposed, transmitted, or shared in any way. Violators will be dismissed from class.

Cell Phones, Laptops, Audio, Video, Recording, Photography, and Mobile Device Policy

The ringing or use of cell phones for talking or texting in class is highly disruptive. Each student is expected to turn off the volume and notifications (e.g., buzzing or vibrating) of his or her cell phone prior to the beginning of each class and to not use the device for texting or talking during class. Except for times when I explicitly invite students to use their phones in class, such as for research or activity purposes, your cell phone should be turned off, with audio and vibration notifications also turned off, and be stored out of sight. Laptop and tablet computers may be used, but only with volume turned off. Ipods, cd players, walkmans, and other devices not required for medical or learning purposes should also be turned off and put away prior to the beginning of class.

Discussion Sections

You are required to attend your assigned discussion section. Attending at different times will not be allowed without prior approval from your TA for verifiably special or extenuating circumstances. Topical coverage in discussion sections may vary from presentation of original content not covered in class, review of materials, discussions, activities, quizzes, and more; therefore it is critical that you attend all of your discussion sections.

Make-up Policy

Tests and written assignments, labs, homework, etc. typically cannot be made up except under verifiable extenuating circumstances. Regardless of absences for weddings, vacations/trips, doctor’s visits, interviews, business/work, etc., work and exams are due on their designated days. As you would for a regular job, you should schedule your extra-curricular activities around your course work.

****Special note for athletes**: You need to notify me of any schedule conflicts well in advance so

we can sort out alternative dates when needed. In the case of written assignments, athletes will need to submit these in advance of any scheduled time away from campus.

Communication

This is a large class, but you shouldn't feel nameless or anonymous. Please communicate with me and your TA. We are here to help you any way we can. If I am unable to speak with you before or after class, please stop by my office hours or contact me to schedule an appointment. I will send class announcements via email. Please email your TA if you have a question about readings, lectures, activities, or assignments. We will do our best to respond to emails in a timely fashion, but please do not expect immediate response as we receive emailed from hundreds of students. This is especially true on weekends and holidays, so please do not wait until the last minute to email or ask a question. Please feel free to email me about questions your TAs are unable to answer, if you have an idea in response to lecture materials, activities, or readings, if you have ideas about how to make the course more useful and enjoyable, or if you'd like to learn about research opportunities. I'm here to help you.

Additional Class Policies

Additional class policies are posted on Moodle. These additional policies are required reading and are an equal part and extension of this syllabus.

CLASS CONTACTS

The space below is provided for you to write down the contact information of two fellow classmates. If you are unsure whom to ask, simply check with those around you. These are people to whom you may turn for help, such as to ask questions about textbook materials, to obtain lecture notes or announcements, to form study groups, etc. The names you place below do not have to be friends or people you already know (though you may well find in the person seated next to you a new friend or study partner). Please obtain names and e-mail addresses for *at least two* fellow classmates before you leave class today.

	Name	E-mail address
Classmate One:	_____	_____
Classmate Two:	_____	_____

COURSE REQUIREMENTS

Homework and Lab Assignments

All homework and labs are required to be printed and submitted in hard copy **in class**. Homework and lab assignments will be distributed and due on alternating Wednesdays in class following the schedule posted below.

Five (5) homework assignments are required, each worth 20 points (totaling 100 points towards your finale grade). Assignments that are handed in after class has started, left in my mailbox or the TA's mailbox, slipped under my door or the TA's door, submitted on Moodle, or e-mailed to me or the TAs will not be accepted. Late assignments will not be accepted unless the reason for the lateness is covered by university policy.

There are five (5) lab sessions, to be held during discussion sections, with no unexcused absences permitted. You are only permitted one (1) excused absence, to be determined by your TA (please contact your TA if you need an excused absence). The only excused absences permitted are for documented university approved reasons. Attendance will be taken during the first 5 minutes of your discussion section. You must be present and accounted for to receive credit for the lab. If you miss any labs with no excuse, your TA will deduct 5 points from your lab grade for every unexcused absence. You must complete and turn in all five (5) of the lab assignments. Each lab assignment will be worth 20 points (totaling 100 points towards the final grade). You will be given the lab assignment when the lab session starts. The assignment will be due in class at the beginning of lecture on the following Wednesday. No exceptions.

Exams

There will be two (2) exams given in the course, a midterm and a final, with each being worth 25% of your final grade, or 100 points each (totaling 200 points towards the final grade). The exams will consist of a few true/false questions and multiple-choice, but the majority of the questions will be short answer and problem set questions. You are required to take the exams when they are scheduled. I do not give make-up exams for reasons other than those outlined in the official University policy (see here: <http://www.umass.edu/registrar/students/policies-and-practices/class-absence-policy>), so do not even ask. I will grant no exceptions. Specific dates are provided for the exams in the schedule below.

GRADING

Each graded item is worth a set number of points that count towards your final grade.

Item	Points Possible
Homework	100 points (5 homework assignments, 20 points each)
Labs	100 points (5 labs, 20 points each)
Midterm	100 points
Final Exam	100 points
<i>Total</i>	400 points

Based on the above point system, your grade will be determined by the total points you earn as follows:

<i>Total Points</i>	<i>Letter Grade</i>	<i>Total Points</i>	<i>Letter Grade</i>
372-391	A	292-311	C
360-371	A-	280-291	C-
352-359	B+	272-279	D+
332-351	B	252-271	D
320-331	B-	240-251	D
312-319	C+	0-239	F

Please be sure to note that grades in the course are not determined by percentages, as is the case in some courses, but rather by total points. This is to add clarity and remove the need for rounding. If you want to know your grade, add up your total points.

Students sometimes inquire about the possibility of earning extra points or credit by taking on additional work, projects, or assignments in order to raise their individual grades. Please note that extra credit will not be permitted because it would not be fair to the rest of the class.

Tentative Schedule of Topics

Your learning is my main principal concern, so I may modify the schedule if it will facilitate your learning. We may also discover that we want to spend more time on certain topics and less time on others. I'll consider changing our schedule if it will help most students in the class.

Week 1 (1/21 & 1/23)

--Course introduction, review of syllabus
--Salkind chapter 1

Week 2 (1/28 & 1/30)

--Salkind chapter 2 (central tendency)

Week 3 (2/4 & 2/6)

--Salkind chapter 3 (variability)

Week 4 (2/11 & 2/13)

--Salkind chapter 5 (correlation)

Week 5 (2/18 & 2/20)

--No class 2/18 due to Monday schedule held on 2/18 due to holiday
--Review and catch up 2/20

Week 6 (2/25 & 2/27)

--Salkind chapter 6 (reliability and validity)

Week 7 (3/3 & 3/5)

--Salkind chapter 7 (hypotheses)

Week 8 (3/10 & 3/12)

--Review for midterm on 3/10
--**Midterm exam in class on 3/12**

Week 9 (3/17 & 3/19)

--No class this week due to Spring Break

Week 10 (3/24 & 3/26)

--Salkind chapter 8 (probability and z-score)

Week 11 (3/31 & 4/2)

--Salkind chapter 9 (significance and p-values)

Week 12 (4/7 & 4/9)

--Salkind chapter 11 (t-tests)

Week 13 (4/14 & 4/16)

--Salkind chapter 16 (linear regression)

Week 14 (4/21 & 4/23)

--Review and catch-up

Week 15 (4/28)

--**Final Exam to be held in class on 4/28 at normally scheduled time**

Lab and Homework Distribution and Due Dates

Date	Homeworks / Labs
30-Jan	Homework 1 assigned
6-Feb	Lab 1 held in discussion section
	Homework 1 due in class
13-Feb	Lab 1 due in class
	Homework 2 assigned
20-Feb	Lab 2 held in discussion section
	Homework 2 due in class
27-Feb	Lab 2 due in class
	Homework 3 assigned
5-Mar	Lab 3 held in discussion section
	Homework 3 due in class

Date	Homeworks / Labs
12-Mar	No labs or homeworks due to midterm exam
19-Mar	Lab 3 due in class
	Homework 4 assigned
26-Mar	Lab 4 held in discussion section
	Homework 4 due in class
2-Apr	Lab 4 due in class
	Homework 5 assigned
9-Apr	Lab 5 held in discussion section
	Homework 5 due in class
16-Apr	Lab 5 due in class