



MA 200 Elementary Statistics

Amber Meis
NORTH CENTRAL KANSAS TECHNICAL COLLEGE

COURSE INFORMATION

This course covers topics related to distributions, measures of central tendency and dispersion, sampling methods, hypothesis testing, correlation, and regression. A good working knowledge of "intermediate" algebra is necessary for the successful student of introductory statistics. Students will apply these concepts to real world situations through applications, simulations and word problems.

Credits: 3

Pre/Corequisites:

- Prerequisite: MA-111

CLASS INFORMATION

Section Number: MA 200

Term: Fall Year: 2022 Start Date: 8/22/2022 End Date: 12/16/2022

Meeting Location: online

INSTRUCTOR

Amber Meis

Email: ameis@ncktc.edu

Office Phone: 7856236153

Office Location: Classroom A Office

Office Hours: M, W- 12:00- 1:00; T, TH- 11:30-1:00- Best to make an appointment

Email is the best way to communicate with me and get in contact with me for the fastest response.

My email is ameis@ncktc.edu

TEXTBOOKS

Understanding Basic Statistics, 8th ed. Brase and Brase ISBN 978-1-337-55807-5

Cengage Webassign Access Card ISBN 9780357700044

SUPPLIES

- Pencil and Paper
- Calculator (preferably scientific)
- Enhanced Webassign Access Code (available with purchase of book)

COURSE COMPETENCIES

1. Create graphical and numerical descriptions of quantitative and qualitative data.
2. Calculate probabilities and percentiles related to a general normal distribution.
3. Distinguish differences in data analysis and interpretation between observational data and data from designed experiments.
4. Calculate and interpret a confidence interval for a single parameter, using both large and small samples.
5. Perform and interpret a test of hypotheses for a single parameter, using both large and small samples.
6. Perform and interpret statistical inference on the difference of two parameters.
7. Fit and interpret a simple linear regression model, including correlation and scatterplots.

GRADING INFORMATION

NCK Tech Grading Scale

A – 90-100%

B – 80-90%

C – 70-80 %

D – 60-70%

F – 59%

Points will be awarded on a total point basis.

3 Unit exams possible (100 points each possible)

Final Exam (200 points possible)

Weekly assignment (20 points possible per week)

Discussion Board/Reply (25 points possible per week)

Extra Credit will be offered at the end of the semester for those that are looking to increase grade (this should not substitute for doing the weekly assignments).

ACADEMIC HONESTY

Membership in the NCK Tech learning community imposes upon the student a variety of commitments, obligations, and responsibilities. It is the policy of this college to impose sanctions on students who misrepresent their academic work. Appropriate classroom instructors or other designated persons will select these sanctions consistent with the seriousness of the violation and related considerations.

Examples of scholastic dishonesty include but are not limited to:

- Plagiarism: i.e. taking someone else's intellectual work and presenting it as one's own. Each department set standards of attribution. Faculty will include disciplinary or class-specific definitions in course syllabi.
- Cheating is unacceptable in any form. Examples include consultation of books, library materials, notes or intentional observation of another student's test on paper or a computer screen; accessing another student's answers from an exam to be given or in progress; submission of falsified data; alteration of exams or other academic exercises; and collaboration on projects where collaboration is forbidden.

- Falsification, forgery or alteration of any documents pertaining to assignments and examinations.
- Students who participate in, or assist with, cheating or plagiarism will also be in violation of this policy.

Classroom instructors and/or administrators will assess sanctions for violations of this policy. The seriousness of the violation will dictate the severity of the sanction imposed. Academic sanctions may include but are not limited to any of the following:

1. verbal or written warning
2. lowering of grade for an assignment
3. lowering of term grade

Administrative sanctions may include but are not limited to either of the following

1. Suspension from the course, program, or College
2. Dismissal from the course, program, or College

NCK TECH MISSION STATEMENT

North Central Kansas Technical College delivers applied, innovative and personalized education to empower learners, enrich lives, develop skilled professionals and strengthen economic systems.

Vision Statement

North Central Kansas Technical College is dedicated to being a leader in workforce development by maximizing value for students, employers and communities through educational excellence.

Core Values

Achieving EXCELLENCE with INTEGRITY through

DEDICATION

INNOVATION

COLLABORATION

COMMUNICATION

NCK TECH NON-DISCRIMINATION POLICY

NCK Tech is committed to nondiscrimination on the basis of race, color, gender, ethnic or national origin, sex, sexual orientation, gender identity, marital status, religion, age, ancestry, disability, military status, or veteran status in admission or access to, or treatment or employment in, its programs and activities. Further, it is the policy of the college to prohibit harassment (including sexual harassment and sexual violence) of students and employees. Any person having inquiries concerning the college's compliance with the regulations implementing Title VI, Title VII, Title IX, Section 504, and the

Americans with Disabilities Act Amendments Act is directed to the VP of Student and Instructional Services (Section 504/ADA Compliance Officer and Title VI, Title VII, & Title IX Compliance Officer) at (785)738-9055, cisbell@ncktc.edu, or PO Box 507, 3033 US Hwy 24, Beloit, KS 67420.

NCK TECH TOBACCO USE POLICY

The use of tobacco products in any form and/or electronic cigarettes is prohibited in, or within ten (10) feet of any building owned, leased, or rented by the College.

NCK TECH WEAPONS POLICY

Individuals who choose to carry concealed handguns are **solely responsible to do so in a safe and secure manner in strict conformity with state and federal laws and NCK Tech weapons policy**. Individuals must be 18 years of age to carry concealed handguns.

Safety measures outlined in the NCK Tech weapons policy specify that a concealed handgun:

- Must be under the constant control of the carrier.
- Must be out of view, concealed either on the body of the carrier, or backpack, purse, or bag that remains under the carrier's custody and control and within immediate reach of the individual.
- Must be in a holster that covers the trigger area and secures any external hammer in an un-cocked position
- Must have the safety on, and have no round in the chamber.

Lockers, toolboxes, and/or tool bags are not approved storage devices in accordance with NCK Tech Policy.

OVERVIEW FOR STUDENTS WITH DISABILITIES

NCK Tech is dedicated to providing equal access and opportunity to all campus programs and services for students with disabilities. We are committed to providing reasonable accommodations in accordance with applicable state and federal laws including, but not limited to, Section 504 and 508 of the Federal Rehabilitation Act of 1973 and the Americans with Disabilities Act Amendments Act (ADAAA) of 2008. We strive to create a safe, respectful and inclusive environment and promote awareness, knowledge and self-advocacy.

NCK Tech acknowledges that traditional methods, programs and services are not always appropriate or sufficient to accommodate the limitations experienced by some qualified persons with disabilities. When a student's disability prevents him/her from fulfilling a course requirement through conventional procedures, consideration will be given to alternatives, **keeping in mind that academic standards must be maintained**.

Services are provided through Student Accessibility Services (SAS) staff located in the Student Success Center, on the Beloit Campus, and in Student Services, on the Hays Campus.

- Director of Learning Services, may be reached at [1-785-738-9020](tel:1-785-738-9020); or by mail at [NCK Technical College, 3033 US Hwy 24, Beloit, KS 67420](mailto:Director of Learning Services, NCK Technical College, 3033 US Hwy 24, Beloit, KS 67420).

Student Responsibilities

Students requesting support services will need to register ("self-disclose" and complete Student Accessibility Services Intake and Consent Form), provide appropriate documentation (if available) including how the disability affects academic performance and suggested accommodations, and communicate with the Director of Learning Services as part of the interactive process to create an *Educational Accommodation Plan* that will notify Instructors of approved accommodations, services and/or auxiliary aids.

Students are encouraged to make timely and appropriate disclosures and requests, at least two weeks in advance of a course, program, or activity for which an accommodation is requested (or as soon as realistically possible) to allow adequate time for accommodation services to be set in place.

Accommodations, Academic Support Services, or Auxiliary Aids

Reasonable accommodations including academic support services and auxiliary aids are provided to allow students with disabilities an equal opportunity to participate in and benefit from our educational programs. Accommodations will be provided on a case-by-case

basis determined by student request, documentation, intake interview, Educational Accommodation Plan team, and assessment of individual needs and course requirements.

Reasonable testing accommodations may include, but are not limited to:

- Extended testing time
- Reduced distraction testing environment
- Test reader and/or scribe
- Use of calculator

Academic support services/auxiliary aids may include, but are not limited to:

- Note-taking assistance (second set of notes, power point slides, or other visual aids provided)
- Sign Language Interpreter
- Preferential seating in the classroom
- Large print exams, handouts, signs, etc.
- Telecommunications devices
- Use of Assistive Technology

Accommodations may not fundamentally alter the nature of the program or activity, lower academic standards, present undue financial or administrative burden on the college, or pose a threat to others or public safety.

Additionally, some accommodations and services cannot be provided, such as personal devices or assistance with personal services.

Auxiliary aids may be available through a variety of sources available to individual students. The student may make a request in obtaining specialized support services from other resources such as Vocational Rehabilitation Services (VR), Recordings for the Blind, Kansas Talking Book Service, etc. For example, Vocational Rehabilitation may fund such items as transportation to the institution, tuition, textbooks, hearing aids, and other individually prescribed medical devices.

If at any time throughout the academic year, a student feels that the agreed upon accommodations are not being followed or that alternate accommodations need to be provided, the student should notify Student Accessibility Services (SAS) staff. NCK Tech is committed to student success; however, we do not require students to use accommodations. The decision of when to utilize approved accommodations or services is up to the student. Integration, self-advocacy and individual responsibility are promoted and expected.

Grievance Procedure

Any student who believes he or she has been subjected to discrimination on the basis of disability or has been denied access or accommodations, shall have the right to invoke the Grievance Procedure.

Students are encouraged to first discuss their concerns with SAS. An attempt will be made to resolve the issue(s) causing concern by assisting the student in discussions with the person(s) involved. Most situations are positively resolved through this process. If the student does not feel the concern or complaint has been appropriately resolved, he or she should contact the [Vice President of Student and Instructional Services](#) at 1-800-658-4655 or PO Box 507, 3033 US Hwy 24, Beloit, KS 67420, where grievance procedures are filed for all students, including students with disabilities.

If the complaint is not resolved at the College level, a student may choose to file a complaint with the [Office for Civil Rights](#) at 1-816-268-0550 or [U.S. Department of Education, One Petticoat Lane, 1010 Walnut Street, Suite 320, Kansas City, MO 64106](#).

Confidentiality

All information regarding a student's disability is confidential. All documentation will remain separate from academic records and will not be released to an individual or source external to NCK Tech without the student's written consent. In order to provide effective services, it may be necessary to communicate limited information on a need-to-know basis regarding disability-related needs to NCK Tech faculty and/or staff.

REASONABLE SUSPICION

If reasonable suspicion of substance abuse exists regarding an employee or student based on objective criteria (including, but not limited to, behavior, appearance, demeanor, detection of the odor of alcohol or any controlled

substance), the employee or student will be requested to consent to drug testing performed by NCK Tech's contract vendor at the expense of the college.

A. A college administrator (or their designee) shall drive the employee or student to the vendor's site for drug testing and shall return the employee or student to his/her residence (or arrange for transportation) following the testing.

B. Test results shall be sent directly to the college administrator, with a copy also sent to the employee or student. All test results will be considered confidential, access to the results will be limited to institutional personnel who have a legitimate need-to-know.

C. In the event of a positive test result, the employee or student may request a retest of the sample at the employee or student's expense. The request must be submitted within 24 hours.

D. Positive results for any illegal drugs, or prescription drugs (either not prescribed for the employee or student, or at levels above the prescribed dosage), or blood alcohol level of 0.04 or greater shall be grounds for disciplinary action, up to and including termination or expulsion.

E. Refusal to provide a specimen for this testing shall be treated as a positive drug test result.

F. Test results or specimens that have been determined to be altered by the employee or student shall be grounds for disciplinary action, up to and including termination or expulsion.

G. If the employee or student tests positive for an authorized prescription drug which may impair his/her performance or judgment, the employee or student may not be permitted to participate in college activities until he/she provides a doctor's release.

RIGHT TO MODIFY THE SYLLABUS

The instructor reserves the right to modify the syllabus during the semester. Students will be given advanced notice if a change would occur.

NCKTC KANSAS CORE OUTCOME STATEMENT

The learning outcomes detailed in this syllabus meet, or exceed, the learning outcomes specified by the Kansas Core Outcomes Project for this course, as sanctioned by the Kansas Board of Regents.

INSTRUCTOR POLICIES

Attendance Policy:

- Attendance in class is very important. You should sign in and complete assignments weekly. The first week that you do not complete any assignment, you will be warned that you have one absence. The second week, you will have chosen to fail this class for attendance. This class has only one required component to it. That component is that you are required to complete an assignment online through an online platform called WebAssign. If that is not completed during your week, you will receive an absence, and I will email or message you regarding your attendance. If you fail to complete an assignment twice, then you are choosing to fail this course.

Assignment Policy:

- You are permitted and encouraged to use a calculator for this class. It should be a calculator that gives you the ability to raise a number to a large exponent.
- **No late assignments are accepted** after the due date.
- Due dates will be as follows: Assignments will be due on Sunday evening at 11:59 p.m. (unless otherwise stated). There will also be a video of me teaching the basic concepts of the chapter and you can download notes for that and watch it as it may assist you greatly in learning the material. This video is for the face-to-face class but I find

that sometimes my online students like it too. Again, **NO LATE ASSIGNMENTS ARE ACCEPTED**. Normally I do not find that there is any reason for an extension on WebAssign either but if you feel you have a good reason (i.e., you have had the flu for the week and have a doctor note), please ask. If I say no, you are not out anything.

- **Videos:** For my face-to-face classes, I use what is known as a “flipped classroom” approach to teaching. This requires me to video the basics of the lesson and send it to the students. I have those videos for you to access so they can help you as well. I have also left the notes for you to download and take notes on the video. These videos are not for your entertainment value and are only to be used for the purpose of providing information to you about the concepts of the chapter. One thing that students always used to say to me was, “Amber, when I come to class, you make things seem so easy. When I get home, I do not remember how you did the problems, so I could not complete my homework.” Watching the video and taking notes at home and then attempting your assignment will hopefully help with that. Another good reason I video the lesson, some of you may only need to hear it one time, and you will get the process down. There are some of you, though, that will require more exposures to the content than that and this provides you the opportunity to re-watch the videos at your convenience.
- **Proctor:** You will have to find a proctor for testing. This person can be a teacher from a close college, or another suitable person that is listed on the information for selecting an exam proctor page that is located in your Moodle shell. Please do not wait to get this accomplished. Your first exam will sneak up on you faster than you think and there will be extra points given to those who have it done by the due date.

"Education is the most powerful weapon which you can use to change the world." - Nelson Mandela

SCHEDULE

Date/Session	Chapter	.	Assignment	.
Week 1			Introduction What is Statistics?	
Week 2	CH. 1 & 2		Ch 1: 1-10 Online Ch 2: 1-10 Online Discussion/ Reply 1	
Week 3	CH 3 & 4		Ch 3: 1-10 Online Ch 4: 1-10 Online Discussion/ Reply 2	
Week 4	Chapter 1-4		Test 1- Ch 1-4	
Week 5	Chapter 5		Ch 5: 1-20 online Discussion/ Reply 3	
Week 6	Chapter 6		Ch 6: 1-20 online	

Date/Session	Chapter	.	Assignment	.
			Discussion/ Reply 4	
Week 7	Chapter 7 Part 1		Ch 7: 1-20 Online Discussion/ Reply 5	
Week 8	Chapter 7 Part 2		Same as above	
Week 9	Chapter 8		Ch 8: 1-20 online Discussion/ Reply 6	
Week 10	Chapters 5-8		Test 2 Ch 5-8	
Week 11	Ch 9		Ch 9: 1-20 Online Discussion/ Reply 7	
Week 12	Chapter 10		Ch 10: 1-20 Online Discussion/ Reply 8	
Week 13		Thanksgiving- No Class	Extra Credit work	
Week 14	Chapter 11		Ch 11: 1-20 Online Discussion/ Reply 9	
Week 15	Chapters 9-11		Test 3 Ch 9-11	
Week 16	Ch 1-11		Final	