



North Carolina Central University
EDGR 5910 0L1
Introduction to Statistical Methods in Education
3 Credit Hours
Spring 2021

Instructor Information

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Phone: 919-530-6358
Office hours: Daily by **appointment***

* My office hours this semester will all be virtual. Please make an appointment in advance so that we can coordinate a meeting by WebEx. Make an appointment by emailing your meeting request to me, including preferred days/times for an appointment. **When contacting me via email, for any reason, put “EDGR 5910:” and then describe the nature of your email in the subject line.** For example, the subject line should be: “EDGR5910-Question about Final Paper.” The content of your message should include your inquiry, your email address, your preferred phone number, and several times you are available. If you contact me by phone, leave a CLEAR message regarding the nature of your call, your preferred phone number, and several times you are available for me to return your call. Allow approximately 48 hours for a response. Note that my response time may be longer Friday through Sunday or over a holiday.

COVID 19 Procedures

North Carolina Central University (“NCCU”) released the [“Protecting the Nest: Guidelines for Returning to North Carolina Central University”](#) and [“NCCU Operations, Recovery and Continuity Plan”](#) in May and June 2020. These documents provide detailed information on the University’s plan to resume instruction in the fall 2020 semester. Both are aligned with guidance received from the University of North Carolina System and Executive Orders issued by the State of North Carolina and outline protocols for which compliance is required to ensure the health and safety of all NCCU faculty, staff and students.

Students are required to wear a face mask or face covering in the classroom, other in-person instructional settings and elsewhere in public, both inside and outside, throughout the campus. To assist you with understanding your obligation to comply with the requirement to wear a face mask or face covering in the classroom or laboratory and the consequence of non-compliance,

note the following statement:

COVID-19 Health and Safety Requirement for Wearing a Face Mask or Other Face Covering in the Classroom or Other Instructional Setting:

To create and preserve a classroom atmosphere, whether in-person or online, that optimizes teaching and learning, all participants share a responsibility in creating a civil and non-disruptive forum. At all times, students are expected to continuously conduct themselves in a manner that does not disrupt teaching or learning. Your responsibilities as a member of the North Carolina Central University community are outlined in the [NCCU Student Code of Conduct](#) (Code). The [Code](#) outlines disciplinary procedures, behaviors that are subject to disciplinary action, hearing procedures and the consequences that result from violating the [Code](#).

In addition to community standards to which all students are accountable, the [Code](#) outlines the requirement to abide by all other rules, regulations, policies, procedures and guidelines issued by the institution. In consideration of the University's commitment to maintain healthy and safe learning environments during the COVID-19 pandemic, the University has issued the [Operations, Recovery and Continuity](#) plan. The [plan](#) highlights and details the University's preparations to safely open for the Fall 2020 semester and includes behavioral standards for in-class instruction, such as physical distancing, use of face coverings, and hand hygiene. However, in light of the ever-changing nature of the COVID-19 pandemic, the plan is subject to change.

Please be advised that face coverings are required while on campus and during in-person instruction as per NCCU's guidelines, and the State of North Carolina's Executive Order 147. The few exceptions to this requirement can be found in the [Operations, Recovery and Continuity](#) plan.

Any action by a student that interferes with the education of another student or interferes with the operations of the University in carrying out its responsibility to provide a safe and conducive educational environment will be considered a violation of the [NCCU Student Code of Conduct](#).

Course Description

Introduction to Statistical Methods in Education is a graduate level course in applied statistics relevant to education and social sciences. The course topics will include descriptive statistics, inferential statistics, and research designs as well as data analysis using inferential statistical procedures. Candidates will compile, analyze, and interpret data in a culminating final paper. The course will prepare candidates to use statistical tools for making data-based decisions.

Required Textbooks & Materials

There are two required texts, one recommended text, and supplemental materials. One required text will guide your learning journey regarding statistical applications to answer specific research questions. Communication is essential if research is to be used and there is an expected writing style for educational and social science researchers. Therefore, one required text and one recommended text will help you to effectively communicate with social scientists and others who will read your work.

Required Texts

Authors: Fredrick J. Gravetter & Larry B. Wallnau.

Title: Statistics for The Behavioral Sciences 10th ed. (Gravetter/Wallnau - MindTap Psychology, 1 term (6 months) Printed Access Card for Gravetter/Wallnau's Statistics for The Behavioral Sciences, 10th)

ISBN: 9781337098120.

Author: American Psychological Association (APA)

Title: Publication Manual of the American Psychological Association

ISBN: 9781433805615

Recommended Texts

Author: Cheryl Glenn, Loretta Gray

Title: Hodges Harbrace Handbook (w/out Access Code)

ISBN: 9781111346706

Supplemental Materials

Some of the course content will include links to videos and websites that will enhance your learning. These materials will supplement and support (***not supplant***) your readings, reflection, and comprehension of statistical concepts. Other reading materials (articles, reports, etc.) will be provided throughout the semester.

Hardware: Because this is a web-based course, you will need the following in order to participate:

- ✓ A computer with reliable Internet access
- ✓ A webcam. The webcam may be built into your computer/laptop or can be purchased separately. We recommend a webcam with a built in microphone (Optional).
- ✓ Software: The projects for this class may require you to download and install some free applications from the Internet. You must have the ability to download and install software.

Course Learning Objectives

Course Outcomes

This course is designed to introduce students to the theory and application of statistical procedures in education clustered around the following topics: (1) descriptive statistics such as scales of measurement, central tendency, and standard deviation, (2) sampling, probability, and sampling distributions (3) inferential statistics, tests of significance (z, t, r, Chi-square). Upon completing the course, students are expected to be able to calculate statistical tests, describe the statistical concepts examined in the course, and design and interpret research studies within their professional fields.

Student Learning Outcomes

Upon completing this course, students will be able to

1. Describe the meaning of major statistical concepts both verbally and computationally.
2. Compute frequencies, central tendency, variability, probability, z-score, t-tests (the one sample, two independent samples, and two related samples), correlations, and chi-square.
3. Conduct a hypothesis test using appropriate statistical procedures and understand the limitations of significance testing.
4. Align research questions with the appropriate statistical procedure.
5. Analyze data using the computer software and make data-based decisions.

Course Methodology

This course is an asynchronous 100% online, learning-centered course where each student is expected to be meaningfully involved in their own learning, and the learning of their classmates, by fostering the intellectual climate through **deep reflection, scholarly discourse** and the **timely submission of course requirements** that demonstrate the highest level of Eagle Excellence. Students are expected to complete all reading assignments, participate in discussion board forums, and complete all assignments by due dates outlined in the course outline. Carefully read this syllabus and our course schedule. **The right to amend the syllabus is reserved.** These documents will give you the information you need to know about the course. Contact the course instructor with any questions or concerns at any time. Most learning opportunities can be completed at your convenience, but some will be at a scheduled time for all students to participate simultaneously. Again, read the syllabus and course schedule carefully.

The course is delivered through NCCU's Blackboard system and students are expected to complete and submit all assignments in Blackboard. **NOTE: assignments will not be accepted via email.** Students are required to log into Blackboard weekly to document course attendance/participation and to fulfill various assignments during the semester (e.g., participate in discussions, submit assignments, obtain handouts, etc.). Blackboard is also the portal to MindTap, which is where your required e-text, quizzes, and learning materials/tools are. Blackboard is accessible through MyEOL. Your username and password for Blackboard and

NCCU email are the same. If you have questions about your Blackboard account, call the IT department at 919-530-7676.

Course Communication Policies

Please, understand that your professor *is not* on-call 24/7. You can expect responses to your inquiries based on the following guidelines:

- a) You should check your NCCU email daily to stay current and avoid missing any important announcements or other correspondence. Missing important communications may jeopardize your success in the course. To email your instructors or classmates, you can access the Send Email feature through Blackboard via the Tools button.
- b) Before emailing your instructor a question or calling, please consult the Syllabus, Blackboard site, and other available resources. You will find many answers among the sources provided. Emails or phone messages that ask questions that can be answered by reading the available resources will result in a response conveying as much.
- c) Emails to the instructor usually will be answered in 48 business hours; emails are not likely to be answered during the weekend or on holidays. Please do not expect your instructor to return your email at 10 p.m.; just because you work late, does not mean that he or she will be available then. Be patient. Be assured, your instructor will respond to your inquiries.
- d) Emails must be sent using your NCCU email account (associated with Blackboard). Emails that are sent using non-NCCU accounts are automatically funneled by the email program into the junk folder.
- e) Emails must contain at least the following information: your name, which class you are in (EDGR 5910), and the subject of your message in the subject line of the email (e.g. EDGR 5910 Question about Homework Assignment). Emails that do not contain the above identifying information will have a delayed response. It also may be deemed spam/junk and may be inadvertently deleted.
- f) The easiest and most efficient way to contact me is email.
- g) All course assignments must be submitted through Blackboard. Email submissions will not be accepted and will not likely be included in the calculation of your grade.
- h) Any inquiries/issues related to Blackboard should be addressed to the NCCU [Information Technology Services \(ITS\)](#). Make sure to CC me in your email.

Technical Support

Students must have a working knowledge of Blackboard. Students encountering computer issues should contact [Information Technology Services \(ITS\)](#). You can also submit a [Help request Ticket](#) and if you are dealing with Blackboard-related difficulties, contact the Blackboard Office at 919-530-766. NCCU has also a 24-hour Blackboard Helpdesk that can be reached at 1-(855)

Learning Modules & Content Organization

The course is organized using a modular structure. All modules are open so that students can work at their own pace. Note that a week runs from Monday through Sunday and additional materials could be added to a week's module that you might not see if you work ahead of schedule. **All assignments related to a module are due by 11:30pm on Sunday nights unless otherwise noted.** Specific due date information can be found in the course calendar below and within the module where they are assigned. Some modules may contain more than one of the above. **The instructor reserves the right to edit due dates or alter assignments based on extenuating semester events** (e.g., weather that impacts student internet access for several days) **or to enhance student learning.** Each module includes all the tasks that need to be completed for each week (access to MindTap, tutorials, PowerPoints, quizzes, etc.). The work for each week can be found in the Content folder in the menu (to your left). The Assignments folder is where you will find details about the capstone paper and opportunities to earn bonus points. The discussion folder is where you will post to the discussion board. The information folder will give you supplemental materials to foster your learning journey.

Assignments

Most assignments that are to be submitted during the course (i.e., module assignments, quizzes, capstone paper, etc.) are posted in Blackboard in the content folder of the course site (on the main menu). Discussion posts are in the discussions folder. Once you have completed the task, you will submit your work to the Blackboard Grade Center. The quiz scores will be submitted to the Blackboard grade center through MindTap. If you have any trouble downloading documents or video lessons, please contact your instructor as soon as possible.

Chapter Quizzes (130 points) – Students are scheduled to complete a quiz on each chapter. We will use *Mindtap*, an online teaching/learning tool, to facilitate digital submission and objective grading. Each assignment will remain open for the week (Monday–Sunday). Students will receive immediate feedback after each quiz. **No late submissions will be accepted.** Students will earn a “0” on a quiz that is not attempted at all, or will receive partial credit for a quiz that is started but not completed. *Do not wait until the last day of the course week (Sunday) to start your quiz because you will be locked out of the quiz when the calendar changes.* You can also be locked out of the quiz if you take too long to finish the quiz. Be prepared to complete the quiz when you start it. *Only under documented extenuating circumstances will the instructor re-open the homework after posted due dates.*

- Each chapter quiz/problem set is worth 10 points, totaling 150 points. The 2 lowest grades will be dropped, for a total of 130 points.

Attendance and Participation (130 points) – The instructor will post a set of discussion questions to the Blackboard Discussion Board in Weeks 2-15. Students' reply to these weekly discussion questions will be counted as the course attendance and participation grade.

Attendance in this online class requires students to post assignments on their due dates and to participate in weekly discussions on Blackboard. Each discussion post is worth up to 10 points and students will lose two points for late postings. **Missing two consecutive discussion posts could result in you being dropped from the course for nonattendance.** It is advised that students take these discussion questions as an opportunity to “make sense” of statistics and post scholarly messages that are personally and professionally relevant. *Simply restating the text will not show that you make sense of the content*—you should show that you understand the content in your own words. In addition to the discussion posts, there will be three (3) WebEx sessions. You are invited to join these sessions to ask questions about the course, assignments, etc. The sessions are optional and serve as virtual office hours.

Statistical Analysis Capstone Project (100 points) – The purpose of the capstone project is to demonstrate your ability to appropriately apply statistical tests and to interpret data. Your capstone will be on the topic of your choice. You **must** use **each** of the following statistical tests in your capstone paper: (1) descriptive statistics for sample (2) *t* stats for a single sample, (3) *t* stats for independent samples **OR** *t* stats for related samples as is appropriate, and (4) Pearson *r* for a total of four statistical tests. **Each** of the four statistical tests **must** include the following sections: (1) introduction to topic, research problem, (2) research question, and hypotheses, (3) data analysis, findings and (4) conclusions. This assignment will demonstrate your understanding of statistics and your ability to use it to design research studies. Students are advised to begin to work on this project now, as you continue your learning journey over the semester, rather than to wait until the end of the semester. An Example of the capstone paper will be posted in Blackboard.

Bonus Assignment—Data Analysis Assignment (10 points) – Statistics is used to analyze and interpret data. Building on the theoretical knowledge learned in the course, students will learn to analyze data using computer software. To complete this assignment, students will first learn to access the software through Eagle Apps (<https://eagleapps.nccu.edu>). Further instructions for earning bonus points will be posted to Blackboard toward the end of the term. This assignment is optional.

Evaluation Criteria

Assessment	Due Date	Points Available
Attendance and Participation	Every week (Except weeks 1 and 15) Your discussion post is due every Sunday before midnight	130 pts.
Chapter Quizzes	Quizzes are due every Sunday before midnight	130 pts.

Assessment	Due Date	Points Available
Statistical Analysis Capstone Project	November 17, 2020 <i>12:00pm (noon)</i>	100 pts.

Grading Scale and Assessment Alignment

Students can earn up to 360 points.

A	90-100%
B	80-89%
C	70-79%
F	69% and below

Ground Rules for Course Activities and Netiquette for Discussion Board Participation

Ground Rules for Attending and Participating in Course Activities

Rule 1 – Make the Time Commitment: This online course has been developed so that everyone (even those with the most math anxiety) can master the content. However, you must be willing to devote the appropriate amount of time to complete successfully the course activities and assignments as required. You should expect to spend at least six hours per week reading and reflecting on content, practicing concepts, and completing assignments. A minimum six-hour per week commitment is a realistic expectation. This estimate is based on the minimum number of hours of contact and study time required for a graduate level course delivered face-to-face. For example, if you were to take this course face-to-face, you would spend 3 hours per week sitting in class in addition to an hour or so for commuting to and from home/work, and several more hours for reading the textbook and doing homework. If you do not or cannot make a time commitment and adhere to the course schedule for completing each assignment in a timely manner, then this online course may not be appropriate for you.

Rule 2 – Adhere to the Course Schedule: It is crucial that you stay on task and complete the course assignments as they are scheduled. We will complete about one chapter per week; some weeks we will cover multiple chapters. Each chapter assignment(s) will be kept open for an entire week. The deadline for each quiz will be posted in MindTap.

It is also crucial that you do not miss any more than two pieces of assigned work. Statistical concepts are built onto each other. If you have missed the material in one chapter, you will not be able to understand the next chapter, and soon the rest of the content will become very confusing to you. You will learn statistics and obtain a good grade only when you follow the course activities as they are scheduled. My best advice is that you do not to miss any chapter quizzes so that the grades that will be dropped will truly be for your worst scores—not a missing quiz.

Rule 3 – Use the Technology for Online Course Delivery: This course is entirely delivered online in an asynchronous format. We will be using Blackboard for online delivery and to communicate with one another. The homework, quizzes, tutorials and most of the material will be through MindTap, which you will access through Blackboard. It is your responsibility to have instant and continuous access to a working computer with Internet connection throughout the course.

Blackboard will serve as a “virtual” classroom for the course. You should look to Blackboard for information/requirements updates, assignments, discussions, etc. It should be your first place to look for information about the course.

We will use MindTap for submitting most of the required coursework, therefore you should make certain that you purchase the access code and follow instructions (in Blackboard) for registering your code. MindTap is integrated into Blackboard so after you register your code, you can login once to access materials in Blackboard and MindTap. Tutorials and supplemental materials are available in MindTap and I encourage you to take advantage of these resources. MindTap gradebook will record and track your progress in the course and it is integrated with Blackboard.

Finally, we will use the *SPSS* software for data analysis. You will need the computer software to complete these assignments. The good news is that you are not required to purchase this software. We will retrieve the software through NCCU’s Eagle Apps and directions are forthcoming.

Rule 4 – Use the following Blackboard protocols: Go to the *Blackboard/Start Here* tab to retrieve the course syllabus. I will use Blackboard each week to introduce you to the statistical concepts that you are expected to learn. The *Blackboard/Content* tab will house the essential and supporting course materials. I will post each chapter content and materials week-by-week in a single folder. The *Blackboard/Discussion Board* is where you will participate in weekly discussions. For each of the chapters, I will create a thread of discussion. To earn all your attendance and participation points, students must give **meaningful** responses to the questions posed that demonstrate mastery of the content, are well written, and free of errors. Proper sources must be cited (in APA style) as appropriate.

Rule 5 – Note Important Dates: It is my greatest wish that **all** of you fulfill your commitment to this course. If, however, you are not able to comply with the course requirements, please note important dates regarding withdrawal from the course/institution as posted in the NCCU’s Academic Calendar.

Participation in the discussion forums is critical for maximizing your learning experiences in this course. You are required to be part of an online community who interact, through discussion, to enhance and support the professional development of the group. Part of the assessment criteria for the course includes assessing the quality and quantity of your participation in the discussion forum.

Some characteristics of excellent discussion contributions are outlined below:

- **NETIQUETTE:** Be courteous and respectful to your classmates and your instructor through [considerate etiquette](#). In this course, that includes (but is not limited to):
 - Maintaining a formal, respectful, civil, professional tone with all course communications, including but not limited to journals, discussion boards, wikis, and emails.
 - Use Standard American English for all projects and posts. This means no text-speak.
 - Avoid derogatory language, obscenity, and hate speech.
 - Avoid the use of CAPS in writing, as this indicates shouting.
- You should submit your initial post(s) early in the session and your subsequent responses to the posts of other learners at timely intervals within the duration of the session. Keep in mind the goal is to have a dynamic discussion that lasts throughout the entire session.
- Your posts and responses should be thorough and thoughtful. Just posting "I agree" or "Good ideas" will not be considered adequate. Support your statements with explanations, examples, experiences, or references.
- Make certain to address the discussion prompt(s). This does not mean you should not extend the topic, but do not stray from the topic.
- Discussions occur when there is dialogue. So, build upon the posts and responses of other learners to create discussion threads. Make sure you revisit the discussion forum and respond (if necessary) to what other learners have posted to your initial responses.
- When relevant, add to the discussion by sharing references, websites, resources, etc. (giving credit when appropriate).
- Your contributions to the discussions (posts and responses) should be complete and free of grammatical or structural errors.

Essential Policies, Services & Resources

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Statement of Inclusion/Non-Discrimination

North Carolina Central University is committed to the principles of affirmative action and non-discrimination. The University welcomes diversity in its student body, its staff, its faculty, and its administration. The University admits, hires, evaluates, promotes, and rewards on the basis of the needs and relevant performance criteria without regard to race, color, national origin,

ethnicity, sex, sexual orientation, gender identity, gender expression, age, disability, genetic information, veteran's status, or religion. It actively promotes diversity and respectfulness of each individual.

Student Accessibility Services (formerly Student Disability Services)

Students with disabilities (physical, learning, psychological, chronic or temporary medical conditions, etc.) who would like to request reasonable accommodations and services under the Americans with Disabilities Act must register with the Office of Student Accessibility Services (SAS) in Suite 120 in the Student Services Building. Students who are new to SAS or who are requesting new accommodations should contact SAS at (919) 530-6325 or sas@nccu.edu to discuss the programs and services offered by SAS. Students who are already registered with SAS and who would like to maintain their accommodations must renew previously granted accommodations by visiting the SAS website at www.nccu.edu/sas and logging into Eagle Accommodate. Students are expected to renew previously granted accommodations at the beginning of each semester, preferably during the first two (2) weeks of class. Reasonable accommodations can be requested at any time throughout the semester; however, they will not be effective retroactively. Students are strongly encouraged to contact their professors to discuss the testing and academic accommodations that they anticipate needing for each class.

Students identifying as pregnant or other pregnancy-related conditions who would like to request reasonable accommodations and services under Title IX must register with SAS.

Confidentiality and Mandatory Reporting

All forms of discrimination based on sex, including sexual misconduct, sexual assault, dating violence, domestic violence, and stalking offenses, are prohibited under NCCU's Sexual Misconduct Policy (NCCU POL 01.04.4). NCCU faculty and instructors are considered to be responsible employees and are required to report information regarding sexual misconduct to the University's Title IX Coordinator. The Sexual Misconduct Policy can be accessed through NCCU's Policies, Regulations and Rules website at www.nccu.edu/policies. Any individual may report a violation of the Sexual Misconduct Policy (including a third-party or anonymous report) by contacting the Title IX Coordinator at (919) 530-7944 or TitleIX@nccu.edu, or submitting the online form through the Title IX Reporting Form, located at www.nccu.edu/titleix.

Other Campus Programs, Services, Activities, and Resources

Other campus resources to support NCCU students include:

- Student Advocacy Coordinator. The Student Advocacy Coordinator is available to assist students in navigating unexpected life events that impact their academic progression (e.g., homelessness, food insecurity, personal hardship) and guide them to the appropriate University or community resources. Contact Information: Student Services Building, Room G19, (919) 530-7492, studentadvocacy@nccu.edu.
- Counseling Center. The NCCU Counseling Center is staffed by licensed psychologists and mental health professionals who provide individual and group counseling, crisis intervention, substance abuse prevention and intervention, anger management, and

other services. The Counseling Center also provides confidential resources for students reporting a violation of NCCU's Sexual Misconduct Policy. Contact Information: Student Health Building, 2nd Floor, (919) 530-7646, counseling@nccu.edu.

- University Police Department. The University Police Department ensures that students, faculty and staff have a safe and secure environment in which they can live, learn, and work. The Department provides a full range of police services, including investigating all crimes committed in and around its jurisdiction, making arrests, providing crime prevention/community programs, enforcing parking regulations and traffic laws, and maintaining crowd control for campus special events. Contact Information: 2010 Fayetteville Street, (919) 530-6106, nccupdinfo@nccu.edu.

Student Support Services for Veteran Students

One of the goals of the faculty and the NCCU Veterans Affairs Office's (VAO) is to provide a welcoming and supportive learning experience for veterans. Specifically, the VAO's primary goal is to provide a smooth transition from military to college life for veterans, service members, and dependents. If you wish, please contact your professor and/or the Director of the VAO during the first weeks of class so that we may support and assist you. During your matriculation, the VAO is here to assist you with the VA Educational Benefits process and offer overall support to ensure academic progression towards graduation. For more information please contact the VAO at 919-530-5000 or veteransaffairs@nccu.edu.

Class Attendance Policy

Class attendance is expected of students at North Carolina Central University and represents a foundational component of the learning process in both traditional on-campus and online courses. Students should attend all sessions of courses for which they are registered for the entire scheduled period and are responsible for completing all class assignments. Instructors will keep attendance records in all classes. Instructors must clearly state on the syllabus how class attendance will factor into the final grade for the course. Faculty will include a written statement of the attendance guidelines in their course syllabi and will review the guidelines during the first class session. As of Fall 2017 NW and NF attendance grades will no longer be assigned. A student who misses three consecutive class meetings, or misses more classes than the instructor deems advisable is subject to being dropped from the course. Students who miss class to participate in university-authorized activities or to respond to military orders are given excused absences for the missed class time. It is the student's responsibility to inform the instructor of such activities at least one week before the authorized absence, and to make up all work as determined by the instructor.

EDGR 5910 Introduction to Statistical Methods in Education is an online course that is delivered in an asynchronous format. Students are responsible for checking in each week to view the objectives of each module and are expected to spend the time required to keep current on the readings and assignments associated with each module. Attendance is an important part of the

course experience. *Attendance includes active engagement in the course's Blackboard site, MindTap, and discussion boards.* Many topics could be covered in classes that are not included in the text or other readings.

Students are responsible for presenting adequate reason for online absence to the instructor **in writing**. To the extent possible, students should notify the instructor in advance about anticipated absences. Students are encouraged to complete scheduled assignments prior to the absence when possible. If students cannot give advance notice of an absence, they should notify the instructor as soon as possible for the reason for the absence with appropriate documentation. (Adequate reasons include personal illness; medically necessary absences due to pregnancy or childbirth; death or illness in the immediate family; military obligations; inclement weather; religious holidays; court-imposed legal obligations; approved accommodations by the Office of Services for Individuals with Disabilities; or participation in a pre-approved university activity.)

Assignments will not be accepted past the due date without sufficient prior notification and documentation. However, 2 points will be deducted from the discussion posts for each discussion post that is late. After one week (7 days), module assignments will no longer be accepted, except in the case of extended, University approved absences. The Discussion post assignment is the indicator of your class attendance. If you miss two consecutive discussion posts, you are subject to being dropped from the course for nonattendance.

The Incomplete (I) Grade Policy

The Grade of "I" is assigned at the discretion of the instructor when a student who is otherwise passing (completed 75% of course work) has not, *due to circumstances beyond his/her control*, completed all the work in the course. The missing work must be completed according to the written and signed agreement between the instructor and the student within the deadline set by the instructor, not to exceed one year from the end of the semester in which the "I" was assigned. The signed written agreement must be filed in the office of the department chair or dean and a copy must also be placed in the instructor's file at the same time that final grades are due. If the "I" is not removed during the specified time, it will automatically turn into an F or NP.

Academic Integrity

Details regarding academic integrity can be found in [Undergraduate Students Code of Academic Integrity](#) and [Graduate Academic Integrity Policy](#) and these policies will be enforced in this course. It is your responsibility to read the codes. As a center of learning, teaching, and research, North Carolina Central University charges its members, including students, to maintain patterns of behavior that enable the aforementioned essential functions.

Academic Dishonesty Defined

Academic dishonesty is defined as any conduct that is intended by the student to obtain for him/her or for others an unfair or false evaluation in connection with any examination or other work for academic credit. Cheating, fabrication, plagiarism, and complicity are examples of conduct that is academically dishonest.

Cheating is the unauthorized use of materials in connection with an examination or other work for academic credit, including, but not limited to:

- The use of books, notes, outlines, etc. during an examination where the instructor has not authorized use of such materials or information;
- Seeking unauthorized materials or information from others in connection with an examination;
- Giving or attempting to give unauthorized assistance to another person in connection with an examination;
- Obtaining or attempting to obtain unauthorized copies of examinations;
- Copying or attempting to copy from the work of another student during an examination;
- Bringing to an examination, or attempting to use during an examination, unauthorized answers which have been prepared prior to the examination; and
- Submitting for evaluation in a course, part or the whole of a work for which credit has been given previously.

Fabrication is the invention, counterfeiting and/or alteration of quoted passages, data, procedures, experiments, sources or other information in connection with any academic exercise.

Plagiarism is the use of the ideas, words, or works of another without attribution when the information provided is not common knowledge either in content or form and includes, but is not limited to:

- Quoting from the published or unpublished work of another without appropriate attribution;
- Paraphrasing or summarizing in one's own work any portion of the published or unpublished materials of another without attribution; and
- Borrowing from another's work, data, and facts which are not in the domain of common knowledge.

Complicity is the giving of assistance or the attempt to give assistance to another for the purpose of perpetrating academic dishonesty.

Adverse Weather

Read <http://www.nccu.edu/health-safety/emergency/adverseweather.cfm> for the University's policy on adverse weather and follow the instructions as outlined in the University policy. In addition, announcements regarding scheduled delays or the closing of the university due to adverse weather conditions will be broadcast on local radio and television stations. Since travel to class is not necessary, the pace of this course is not likely to be affected by adverse weather.

Course Calendar

Week	Topics	Course Activities	Deliverables due by 11:30pm Sunday unless otherwise noted
Wk 1 01/11/21	Personal Introductions Pre-course tutorials and practice problems Ch 1 Intro to Statistics Ch 2 Frequency Distributions	<ul style="list-style-type: none"> • Greetings and personal introductions • Introductions to syllabus, Blackboard, and MindTap • Read the chapters • View the ch ppt • Chapter tutorials • Practice chapter problems <p>Video:</p> <p>Introduction to Statistics https://www.youtube.com/watch?v=oZbH-JxZ3Y8</p> <p>Why You Need to Study Statistics https://www.youtube.com/watch?v=wV0Ks7aS7YI</p> <p>Introduction to Frequency Distribution https://www.youtube.com/watch?v=ukgdDAcIdUE</p>	<ul style="list-style-type: none"> • Personal introductions and greetings • MindTap registration, tutorials, practice problems • Chapter Quizzes • Chapter discussions to Blackboard
Wk 2 01/18/21	Ch 3 Central Tendency	<ul style="list-style-type: none"> • Read the chapter • View the ch ppt • Chapter tutorials • Practice chapter problems <p>Video:</p> <p>Mean, Median, & Mode - Measures of Central Tendency https://www.youtube.com/watch?v=dE1zDbFABQ</p> <p>Average or Central Tendency: Arithmetic Mean, Median, and Mode https://www.youtube.com/watch?v=GrynkZB3E7M</p> <p>Best Measure of Central Tendency https://www.youtube.com/watch?v=XIURkiXeC8E</p>	<ul style="list-style-type: none"> • Chapter Quiz • Chapter discussions to Blackboard

Week	Topics	Course Activities	Deliverables due by 11:30pm Sunday unless otherwise noted
Wk 3 01/25/21	Ch 4 Variability Ch 5 Z Score	<ul style="list-style-type: none"> • Read the chapter • View the ch ppt • Chapter tutorials • Practice chapter problems <p>Video:</p> <p>Variability (Statistics) https://www.youtube.com/watch?v=ipYaHqutMds</p> <p>Measures of Variability (Variance, Standard Deviation, Range, Mean Absolute Deviation) https://www.youtube.com/watch?v=Cx2tGUze60s</p> <p>Intro to Measures of Variation: Range, Standard Deviation, Variance https://www.youtube.com/watch?v=rStwdZU_shY</p> <p>Statistics 101: Understanding Z-scores https://www.youtube.com/watch?v=bUu5HIHlrRw</p> <p>Z scores - Statistics https://www.youtube.com/watch?v=NY2zWGBXBhU</p>	<ul style="list-style-type: none"> • Chapter Quiz • Chapter discussions to Blackboard
Wk 4 02/01/21	Ch 6 Probability Ch 7 Probability and Samples: Distribution of Sampling Means	<ul style="list-style-type: none"> • Read the chapter • View the ch ppt • Chapter tutorials • Practice chapter problems <p>Video:</p> <p>Introduction to Probability https://www.youtube.com/watch?v=Rawp3C-CuJo</p> <p>Probability - Part One : Simple Probability https://www.youtube.com/watch?v=AY3O_gsSnbE</p> <p>Introduction to Probability: Basic Concepts https://www.youtube.com/watch?v=CBnGs9t6RxY</p> <p>Probability - Part One : Simple Probability https://www.youtube.com/watch?v=AY3O_gsSnbE</p> <p>Probability of a Sample Mean https://www.youtube.com/watch?v=BRVe-ZyCSTU</p>	<ul style="list-style-type: none"> • Chapter Quiz • Chapter discussions to Blackboard

Week	Topics	Course Activities	Deliverables due by 11:30pm Sunday unless otherwise noted
Wk 5 02/08/21	Ch 8 Introduction to Hypothesis Testing	<ul style="list-style-type: none"> • Read the chapter • View the ch ppt • Chapter tutorials • Practice chapter problems <p>Video:</p> <p>Intro to Hypothesis Testing in Statistics https://www.youtube.com/watch?v=VK-rnA3-41c</p> <p>Hypothesis Formulation https://www.youtube.com/watch?v=JV2-WHzreFo</p>	<ul style="list-style-type: none"> • Chapter 6 Quiz • Chapter discussions to Blackboard • Chapter 7 Quiz • Ch discussions to Blackboard
Wk 6 02/15/21	Ch 9 Intro to t Statistic Ch 10 The t -test for Two Independent Samples Ch 11 The t -test for Two Related Samples	<ul style="list-style-type: none"> • Read the chapter • View the ch ppt • Chapter tutorials • Practice chapter problems <p>Video:</p> <p>StatsCast: What is a t-test? https://www.youtube.com/watch?v=0Pd3dc1GcHc</p> <p>Independent Samples t-Test https://www.youtube.com/watch?v=iyO4i8yUag</p> <p>Statistics 101: Two Populations, t-test with Hypothesis https://www.youtube.com/watch?v=oJkjkY6mmA</p> <p>Two sample t-test example https://www.youtube.com/watch?v=vV0RtkI2jxU</p> <p>Related samples t test https://www.youtube.com/watch?v=uTFXat9c4IY</p> <p>Repeated Measures t Tests Part I Introduction https://www.youtube.com/watch?v=bFEFkl8q0O8</p>	<ul style="list-style-type: none"> • Chapter Quiz • Chapter discussions to Blackboard

Week	Topics	Course Activities	Deliverables due by 11:30pm Sunday unless otherwise noted
Wk 7 02/22/21	Reflect & Review	<ul style="list-style-type: none"> • Review prior chapters • Revisit prior chapters' tutorials • Revisit prior chapters' practice problems 	<ul style="list-style-type: none"> • Discussions to Blackboard
Wk 8 03/01/21	Ch 12 Introduction to Analysis of Variance	<ul style="list-style-type: none"> • Read the chapter • View the ch ppt • Chapter tutorials • Practice chapter problems <p>Video:</p> <p>Introduction to ANOVA https://www.youtube.com/watch?v=qV-WoquC4dA</p> <p>Statistics 101: ANOVA, A Visual Introduction https://www.youtube.com/watch?v=0Vj2V2qRU10</p> <p>12-6 One Way ANOVA in SPSS https://www.youtube.com/watch?v=rS3k8ONVN-o</p>	<ul style="list-style-type: none"> • Chapter Quiz • Chapter discussions to Blackboard
Wk 9 03/08/21	SPRING BREAK		
Wk 10 03/15/21	Ch 13 Repeated Measures & Two-Factor Analysis of Variance	<ul style="list-style-type: none"> • Read the chapter • View the ch ppt • Chapter tutorials • Practice chapter problems <p>Video:</p> <p>Repeated Measures ANOVA https://www.youtube.com/watch?v=VPB3xrsFl4o</p> <p>Factorial ANOVA, Two Independent Factors https://www.youtube.com/watch?v=zGIH2JyQvil</p>	<ul style="list-style-type: none"> • Chapter Quiz • Chapter discussions to Blackboard

Week	Topics	Course Activities	Deliverables due by 11:30pm Sunday unless otherwise noted
Wk 11 03/22/21	Ch 14 Correlation and Regression	<ul style="list-style-type: none"> • Read the chapter • View the ch ppt • Chapter tutorials • Practice chapter problems • Orientation to SPSS <p>Video:</p> <p>Statistics 101: Understanding Correlation https://www.youtube.com/watch?v=4EXNedimDMs</p> <p>The Easiest Introduction to Regression Analysis! https://www.youtube.com/watch?v=k_OB1tWX9PM</p> <p>04 SPSS for Beginners – Correlation https://www.youtube.com/watch?v=6EH5DSaCF_8</p> <p>06 SPSS for Beginners - Paired Samples t Tests https://www.youtube.com/watch?v=vII22ZnFOP0</p> <p>07 SPSS for Beginners - Independent Samples t Test https://www.youtube.com/watch?v=-qGFZFOQx7Q</p> <p>08 SPSS for Beginners - Summary https://www.youtube.com/watch?v=R1ON_vM5xak</p>	<ul style="list-style-type: none"> • Chapter Quiz • Chapter discussions to Blackboard
Wk 12 03/29/21	Ch 15 The Chi-Square Tests for Goodness of Fit and Independence	<ul style="list-style-type: none"> • Read the chapter • View the ch ppt • Chapter tutorials • Practice chapter problems <p>Video:</p> <p>Statistics 101: Introduction to the Chi-square Test https://www.youtube.com/watch?v=SvKv375sacA</p>	<ul style="list-style-type: none"> • Chapter Quiz • Chapter discussions to Blackboard
Wk 13 04/05/21	Review & Reflect Technology & Statistics	<ul style="list-style-type: none"> • Re-Read the chapters as needed • Review the chs' ppts • Chapter tutorials • Access to the NCCU Eagle Apps • Orientation to Excel and SPSS <p>Video:</p> <p>The Beginner's Guide to Excel - Excel Basics 2017 Tutorial https://www.youtube.com/watch?v=rwbho0CgEAE</p>	<ul style="list-style-type: none"> • Chapter discussions to Blackboard • Orientation to Excel • Orientation to SPSS

Week	Topics	Course Activities	Deliverables due by 11:30pm Sunday unless otherwise noted
		<p>Excel For Beginners (spreadsheets) HD https://www.youtube.com/watch?v=L7dHA_8GzKw</p> <p>SPSS for Beginners 1: Introduction https://www.youtube.com/watch?v=ADDR3_Ng5CA</p> <p>01 SPSS for Beginners - How to Use SPSS Introduction https://www.youtube.com/watch?v=zFBUfZEBWQ</p> <p>02 SPSS for Beginners – Frequency https://www.youtube.com/watch?v=bapuGcjwiLQ</p> <p>03 SPSS for Beginners - Descriptive Statistics https://www.youtube.com/watch?v=99fGYHGyO5U</p> <p>05 SPSS for Beginners - One Sample t Test https://www.youtube.com/watch?v=C2Qa5d9ij0Y</p>	
Wk 14 04/12/21	Reflect & Review	<ul style="list-style-type: none"> • Review prior chapters • Revisit prior chapters’ tutorials • Revisit prior chapters’ practice problems • Review/edit Capstone Paper 	<ul style="list-style-type: none"> • Discussions to Blackboard
Wk 15 04/19/21			<ul style="list-style-type: none"> • Discussions to Blackboard • Capstone Project due 04/22/21 12:00pm (noon) • Bonus Assignments • Due 04/22/21 at 12:00pm (noon)

Virtual Office

Virtual office hours are held every on Tuesdays as listed below and by appointment as needed. The virtual office sessions optional; participation will not be graded. You should schedule an appointment if your question is of a sensitive nature, such as asking questions regarding a grade that you received.

Session 1

EDGR 5910 Introduction to Statistical Methods in Education Virtual Office Hours
Hosted by Wynetta Lee

<https://nccu.webex.com/nccu/j.php?MTID=m661e4084dc8cc2701c23127f183e526d>
Monday, Jan 25, 2021 6:00 pm | 1 hour | (UTC-05:00) Eastern Time (US & Canada)
Meeting number: 120 176 8201
Password: STATISTICS2021
75b040f86df24296bcb6ebc7f34843ac

Join by video system
Dial 1201768201@nccu.webex.com
You can also dial 173.243.2.68 and enter your meeting number.

Join by phone
+1-408-418-9388 United States Toll
Access code: 120 176 8201

Session 2

EDGR 5910 Introduction to Statistical Methods in Education Virtual Office Hours
Hosted by Wynetta Lee

<https://nccu.webex.com/nccu/j.php?MTID=m585cdb6ec7e107bb10ad4f4715dd7d60>
Monday, Feb 15, 2021 6:00 pm | 1 hour | (UTC-05:00) Eastern Time (US & Canada)
Meeting number: 120 034 8811
Password: STATISTICS2021
3c9169b693684925af335d5139bf3dbf

Join by video system
Dial 1200348811@nccu.webex.com
You can also dial 173.243.2.68 and enter your meeting number.

Join by phone
+1-408-418-9388 United States Toll
Access code: 120 034 8811

Session 3

EDGR 5910 Introduction to Statistical Methods in Education Virtual Office Hours

Hosted by Wynetta Lee

<https://nccu.webex.com/nccu/j.php?MTID=m28450db82121b6644677f167ef29e3c1>

Monday, Mar 15, 2021 6:00 pm | 1 hour | (UTC-05:00) Eastern Time (US & Canada)

Meeting number: 120 962 1471

Password: STATISTICS2021

c2a99f7a1eb748a0909b9978ef46f30a

Join by video system

Dial 1209621471@nccu.webex.com

You can also dial 173.243.2.68 and enter your meeting number.

Join by phone

+1-408-418-9388 United States Toll

Access code: 120 962 1471