PA 515 Research Methods and Analysis

Spring 2025

Instructor: Serena Kim
Office: Caldwell 209A
E-mail: serena_kim@ncsu.edu
Personal Web: serenakim.org
Course Communication: Google Chat

Class Days & Times: Thur, 6:10 – 8:30pm
Course Structure: In-Person
Class Location: 113 Tompkins Hall
Course Website: courseweb.site/pa515-2025
Office Hours: Schedule an Appointment

Course Overview

Course Description

A focus on behavioral approach to study of political and administrative behavior. Topics include philosophy of social science; experimental, quasi and non-experimental research design; data collection techniques; basic statistical analysis with computer applications.

Course Content

The focus of this course is on research design and the application of qualitative and quantitative analysis in the realms of public and nonprofit administration, policy, and management. Throughout this course, students will develop both a conceptual and practical understanding of research and analytical methods. Students will also acquire fundamental skills such as conducting literature reviews, collecting and managing qualitative and quantitative data, creating data visualizations, conducting statistical analyses, including univariate, bivariate, and multivariate methods, and designing interview and survey questions.

Course Structure

The majority of this course is synchronous, delivered through real-time, face-to-face class sessions. Please check the course website for the detailed schedule and materials for each class. Additional materials and activities delivered through the Course Website.

Course Prerequisites

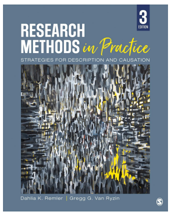
None.

Technical and Digital Information Literacy Skills/Requirements

- Download and use publicly available online data
- Use Google Drive
- Scan QR codes using a smartphone
- Conduct online research using various search engines and library databases. Visit Distance Learning Services at NC State Libraries for more information
- Use online search tools such as Google Scholar for academic purposes, including applying search criteria, keywords, and filters

Textbooks and Course Materials

Required Text



Title: Research Methods in Practice: Strategies for Description and Causation
Author: Dahlia K. Remler, Gregg G. Van Ryzin
Publisher: SAGE Publications, Inc
Publication year: 2021
Available at: us.sagepub.com

Optional Text

- Nathan Favero. Statistics Minus The Math. July 31, 2024.
- G. David Garson, Data analytics for the social sciences : applications in R. Routledge, Taylor & Francis Group, 2022.
- Mildred L. Patten and Michelle Newhart. Understanding Research Methods: An Overview of the Essentials. Routledge, 2018.
- Gary R. Rassel, Practical research methods for nonprofit and public administrators. Routledge, 2023.

Software and Tools

During class sessions, we will primarily use the Python programming environment in Google Colab. I will also demonstrate key procedures in Microsoft Excel whenever possible. Note that some of the data management tasks automated in Python may require manual steps, functions, and calculations when performed in Excel. If you choose to use Excel for the Problem Set assignments, be prepared to complete a few steps manually.

Students are welcome to use other statistical software (e.g., Excel, SPSS, STATA, R, SQL, SAS) for assignments and exercises if preferred. Full credit can be earned on assignments regardless of the statistical software or tool used. In addition to Python, I can provide assistance with Excel, R, STATA, SPSS, or SQL. However, during class sessions, I will focus exclusively on demonstrating data management and analytics techniques in Python and Excel to ensure efficient use of time. If you have questions about other software, please use office hours for additional support.

Other Student Expenses

None.

Digital Course Components

The following are the digitally hosted course components:

- **Course Website**: All course materials, including readings and publicly available videos, will be uploaded to the Course Website.
- **Google Chat**: A private chat space designed to facilitate classroom discussions and provide support for course assignments. Use both the instructor and your peers as resources.
- **Moodle**: Platform for grades.
- **Google Forms**: Tool for submitting assignments and completing peer reviews.
- **Panopto**: Access course recordings. Class meeting recordings are available only to enrolled students.

Learning Objectives

By the end of this course, students will be able to achieve the following learning objectives (LOs):

Learning Objectives (LO)	NASPAA Competency*
1. Research Proficiency	
Identify and employ suitable research methods and analytical tools to gather and interpret data effectively; Demonstrate a comprehensive understanding of various data collection and analysis techniques; Design a research plan to address a specific policy question; Evaluate the results of statistical and analytical methods to make data-driven decisions.	Analyze, synthesize, think critically, solve problems and make evidence-informed decisions in a complex and dynamic environment.
2. Literature Engagement	
Identify and access relevant empirical studies and data sources within the academic literature; Assess the quality, reliability, and validity of empirical research findings; Synthesize key findings from empirical research to inform policy analysis; Critique theoretical frameworks and methodologies used in published research.	Participate in, and contribute to, the policy process; Analyze, synthesize, think critically, solve problems and make evidence-informed decisions.
3. Ethical Use of Data and Public Values	
Recognize ethical considerations, diverse perspectives, and underlying assumptions in data collection and analysis; Evaluate ethical implications of data usage in policy decisions; Advocate for the ethical use of data to support public service values.	Articulate, apply, and advance a public service perspective; Participate in, and contribute to, the policy process.
4. Effective Communication	
Communicate research findings and complex concepts clearly and effectively to both academic and non-academic audiences; Articulate evidence-based conclusions derived from empirical studies; Construct and deliver professional-quality written reports and presentations; Visualize data effectively to support arguments and policy recommendations.	Communicate and interact productively and in culturally responsive ways with a diverse and changing workforce and society at large

* The Network of Schools of Public Policy, Affairs and Administration (NASPAA) developed the NASPAA Standards that include five domains of universal required competencies (Standard 5.1).

Communication Guidelines

Communication with the Instructor

- **Preferred Mode of Communication**: The preferred mode of communication for course activities is Google Chat. This platform allows for effective tracking of questions and discussions over time. Responses can be expected within one business day (excluding weekends).
- **Email Guidelines**: If you prefer email or need to share documents, you can email the instructor at serena_kim@ncsu.edu. Responses can be expected within two business days (excluding weekends). If I email you directly, please reply within two business days. It is recommended to check your NC State email at least once per day to stay up to date on course communications. Always include a clear, specific, and concise subject line. Including the course name in your email is highly encouraged, as I teach multiple courses.

Respecting Our Learning Community

- Use a respectful tone in all forms of communication, including email, written, oral, and visual formats.
- Maintain professionalism in written communication by avoiding slang, poor grammar, or inappropriate language.
- Respect regional dialects and culturally embedded communication styles.

- Stay home if you have symptoms of a contagious illness (e.g., fever, chills).
- Participate respectfully in our classroom community, whether virtual or physical, by:
  - Avoiding lewd or inappropriate speech or behavior.
  - Maintaining a safe physical environment.
  - Refraining from using your cell phone for calls or texts unless explicitly allowed.
  - Not attending class under the influence of alcohol or drugs.

GRADING & FEEDBACK

ASSIGNMENTS & EVALUATION PROCEDURE

Component	Weight	Period	Learning Obj.
1. Problem Set	**20%**		LO1 & LO4
(a) *Data Management & Visualization*	10 %	Week 01-03	
(b) *Hypothesis Testing*	10 %	Week 11-12	
2. Evidence Review *	**30%**		LO2 & LO4
(a) *Report*	15 %	Week 08-09	
(b) *Presentation*	10 %	Week 10	
(c) *Group-to-Group Feedback*	5 %	Week 10-11	
3. Research Brief *	**30%**		LO3 & LO4
(a) *Report*	17%	Week 13-14	
(b) *Presentation*	13%	Week 15	
4. Participation	**20%**		LO1 – LO4
(a) *Attendance*	7 %	Week 01-16	
(b) *Peer Evaluation of Teamwork*	10 %	Week 08 & 16	
(c) *Presentation Engagement*	3 %	Week 08 & 16	
5. Mini Assignments (Bonus Credits)	**3%**		LO1 – LO4

* These are group assignments, subject to the Group Assignment Policy. Please refer to this policy for detailed information regarding expectations and guidelines.

1. Problem Set

This is an individual assignment. While collaboration with fellow students on the problem set is encouraged, it is crucial that you independently write your own answers. You may ask each other questions and work together, but each student must produce their own written responses. There will be two problem sets throughout the course, each consisting of a few questions. Problem sets must be typed and submitted electronically. Some problems will require the use of statistical tools or software. Submissions will be made through Moodle on Gradescope, with Turnitin enabled.

2. Evidence Review

This assignment requires students to evaluate and summarize research evidence on a specific policy topic assigned by the instructor. Using an evidence hierarchy (or levels of evidence), students will assess the strength of the evidence—such as the effectiveness of policies, programs, or actions—based on empirical research. The findings must be communicated in a concise and accessible format intended for a non-expert audience, such as policymakers or community stakeholders. **The target audience for your report and presentation is the legislators and the Governor of North Carolina**. Your work should be tailored to this audience, focusing on clarity, relevance, and actionable insights.

(a) Report

- Working in groups of 3–4, students will review 7–11 empirical, peer-reviewed papers and produce a 2–4 page, single-spaced report documenting evidence on a specific state policy. A group of 4 students will be required to review at least 10 papers. The policy topic will be provided by the instructor during class. **Students are not allowed to discuss this assignment outside of their group.**
- The report should include:
  - **Title and Introduction:** Include a title and the names of all team members. The introduction outlines the policy context and scope of the evidence review. Clearly define the purpose of the review and provide relevant background information.
  - **Results:** Summarize the key findings of the evidence review, including the types of outcome measures examined, the effects and outcomes of the policy, and an evaluation of the methodological quality of the reviewed studies. While these components do not need to be separate sections, organizing findings in tables is highly encouraged, as illustrated in Tables 1 and 2 in Graham-Rowe, Skippon, Gardner, and Abraham (2011).
  - **Discussion:** Summarize the overall methodological rigor of the evidence base and discuss the implications for policy formulation, implementation, and development.
  - **References:** Provide a complete list of all cited studies at the end of the report. Footnotes are not allowed for the references.
  - **Supplementary Materials:** Submit a separate directory containing PDFs of all reviewed papers, labeled as 'LastNameoftheFirstAuthor_YearofPublication'.
- Evaluation Criteria:
  - **Formats (10%)**: (1) Includes the required number of reviewed papers (9–12). (2) Provides a separate directory containing PDFs of all reviewed studies, labeled correctly as 'LastNameoftheFirstAuthor_YearofPublication'. (3) Adheres to the specified length (3–5 pages, single-spaced) and formatting requirements.
  - **Content Quality (30%)**: (1) Clearly defines the policy context and purpose of the review. (2) Summarizes the types of outcome measures examined in the reviewed papers *accurately*. (3) Evaluates the methodological quality of the reviewed studies with *accurate and appropriate evidence*. (4) Provides a concise assessment of the overall methodological rigor of the evidence base. (5) Offers insightful and well-supported implications for policy formulation, implementation, and development.
  - **Diversity of Evidence (10%)**: The review incorporates a balanced mix of studies, including those with varying methodological quality (including experimental or quasi-experimental designs).
  - **Use of Evidence (30%)**: (1) Selected studies are relevant to the policy topic and aligned with the review's objectives. (2) Critically evaluates evidence rather than simply summarizing it. (3) Findings are *accurately presented* and supported with appropriate citations and references.
  - **Clarity, Organization, & Professionalism (20%)**: (1) Submission is completed on time and reflects effort in preparation. (2) Writing is clear, precise, and well-organized, ensuring readability for a non-expert audience. (3) Report is logically structured, free of grammatical and typographical errors, and exhibits a professional tone.

(b) Presentation

- Each team will deliver a 12-minute presentation of their review, followed by a 5-minute Q&A session. The presentation must clearly and effectively communicate the team's findings and analysis to the hypothetical audience of legislators and the Governor of North Carolina.
- Teams may present directly from their report. Creating a separate slide deck is optional. But using visual aids such as charts, tables, or infographics are recommended to illustrate key findings and engage the audience effectively.
- The presentation should address the policy context and objectives, summarize key findings, evaluate the methodological quality of the evidence, discuss the policy implications, and conclude with the key takeaways. **The emphasis should be on the findings of your review rather than the background.**
- Teams are encouraged to focus on clarity and engagement, tailoring their language and explanations to ensure they are accessible to non-experts. Rehearsing as a team is highly recommended to

manage time effectively and ensure smooth transitions between speakers. During the Q&A session, all team members should be prepared to respond to questions with clarity, confidence, and a deep understanding of the reviewed evidence.

- Evaluation Criteria:
  - **Content and Evidence (40%)**: The presentation summarizes key findings from the reviewed papers, critically evaluate the methodological quality of the evidence, and explain the policy implications and recommendations. The discussion should be accurate, thorough, and directly relevant to the policy context.
  - **Demonstrating Knowledge of Reviewed Papers (20%)**: Show a clear understanding of the reviewed papers and respond to audience questions confidently and competently during the Q&A session. Answers should reflect a deep analysis of the evidence.
  - **Audience Engagement (25%)**: Present findings clearly and effectively, drawing connections to policy implications and tailoring the content for a non-expert audience. Use clear language. Include visuals such as charts, tables, or infographics to enhance understanding. Ensure the presentation flows logically with smooth transitions between sections.
  - **Respectful Communication and Professionalism (15%)**: Maintain professional, respectful, and inclusive language throughout the presentation. Foster a constructive atmosphere and adhere to the designated time limit.

(c) Group-to-Group Feedback

- Each team will receive another team's evidence review report and the evaluation rubric 2 days prior to the presentation. Teams are expected to evaluate the report and presentation using the provided evaluation rubric, focusing on key areas such as content clarity, accurate assessment of the methodological quality of reviewed papers, and overall professionalism.
- Each team will submit their evaluation of the assigned report and presentation within 7 days of the presentation. Feedback must be constructive, specific, and aimed at helping the presenting team improve their work.
- The evaluation will include two components: (1) a structured (numerical) evaluation based on the rubric, and (2) written feedback addressing (a) the usefulness of the evidence review (Did the report and presentation effectively communicate actionable insights for decision-makers?) and (b) areas for improvement (Highlight specific ways the report or presentation could be enhanced, focusing on content clarity, depth of analysis, or professional delivery). The written feedback should be concise yet detailed, approximately 2–4 paragraphs (within one page).
- Evaluations should be written from the perspective of a hypothetical audience member (e.g., NC legislator or the governor). Reviewer identities will remain anonymous, but evaluations and comments will be shared with the presenting team.
- Evaluation Criteria:
  - **Thoroughness (45%)**: Evaluators critically examine the presenting team's findings, with particular attention to the methodological quality of the reviewed papers. The assessment is comprehensive and accurate, reflecting a deep understanding of the work. Numerical evaluations are consistent with the criteria outlined in the rubric and align with the written feedback.
  - **Clarity and Professionalism (30%)**: Feedback demonstrates a clear and comprehensive understanding of the report and presentation. Written feedback is well-organized, concise, and free of grammatical or typographical errors. The tone is respectful and professional, maintaining the perspective of a hypothetical audience.
  - **Constructiveness (25%)**: Feedback provides clear, specific, and actionable suggestions for improvement. It effectively addresses both the strengths and weaknesses of the report and presentation, offering meaningful insights for the presenting team.

3. Research Brief

In groups of 3–4, students will prepare a research brief that includes an original data analysis. The brief must address a clear research question or purpose, present descriptive statistics, and conduct a simple hypothesis test. The findings from the analysis should be visually supported by at least one figure. Students may collect their own data if desired, but for efficiency, the use of publicly available datasets is strongly encouraged. Each group will select their own research topic; however, students are highly encouraged to discuss their chosen topic and dataset with the instructor by April 3 for feedback and guidance.

(a) Report

- The research brief is expected to be 3–6 pages in length, single-spaced, including the reference section.
- The report includes the following components:
  - **Title and Introduction:** Include a title and the names of all team members. The introduction outlines the research question, objectives, and hypothesis. Provide an explanation of the significance of the research topic and its importance.
  - **Data and Methods:** Provide a detailed description of the dataset, specifying the source, unit of analysis, and key variables. Include at least one descriptive statistics table or figure to summarize the data. Screenshots of tables are not accepted; all tables are to be created directly within the report.
  - **Results:** Present the findings from the hypothesis test, accompanied by at least one figure to support the results. Clearly indicate the statistical significance of the hypothesis test.
  - **Discussion:** Discuss the implications of the findings, identify any limitations of the study, and suggest potential directions for future research.
  - **References:** Provide a complete list of all cited studies at the end of the report. Use a consistent citation style, and avoid using footnotes for references.
- Evaluation Criteria:
  - **Research Purpose and Clarity (20%)**: The report clearly establishes the research purpose, including the clarity and relevance of the research question, objectives, and hypothesis. The topic is well-framed and meaningful, highlighting its significance effectively.
  - **Methods and Analysis (30%)**: The methods are rigorous and appropriate, with a clear and thorough description of the dataset, analytical approach, and key variables. The findings are presented accurately and clearly, including the identification and interpretation of statistical significance. The datasets, units of analysis, and scope are explicitly identified.
  - **Professionalism and Organization (20%)**: The report demonstrates professionalism and is well-structured, with logical organization, clear headings, and a coherent flow of content. Adherence to guidelines—such as page length (3–6 pages, single-spaced), proper formatting of tables and figures, and inclusion of all required components (e.g., title, team members, references, tables, and figures)—is evaluated.
  - **Writing Quality (15%)**: The writing is clear, precise, and easy to read. Grammar, sentence structure, and vocabulary are appropriate for an academic audience. The report avoids unnecessary jargon and maintains a concise and accessible style.
  - **Visual Components (10%)**: Tables, figures, and other visuals are well-designed, clearly labeled, and enhance the understanding of the content. Screenshots of tables are not allowed, and all visuals must align with the analysis and findings.
  - **References and Citations (5%)**: The references section is accurate, consistent, and complete. Citations follow a consistent style and include appropriate and relevant sources. Footnotes are not used for references.

(b) Presentation

- Each team will present their research brief within 13 minutes, followed by a 4-minute Q&A session. The presentation should clearly communicate the team's research purpose, data analysis, and findings to the audience.
- Teams may present directly from their research brief. Creating a separate slide deck is optional but encouraged for teams wishing to enhance their presentation. Visual aids, such as charts, tables, or figures, are strongly recommended to support key findings and engage the audience.
- The presentation should focus on clarity and accessibility, tailoring language and explanations for a

non-expert audience. Teams are encouraged to rehearse together to ensure effective time management, smooth transitions, and a cohesive delivery during the presentation.

- Suggested structure of the presentation (if slides are created):
  - **Title Slide:** Include the research title and names of team members.
  - **Motivation and Research Purpose:** 1–2 slides. Explain the research question, objectives, and the significance of the topic.
  - **Data and Methods:** 2–3 slides. Describe the dataset, variables, unit of analysis, and key analytical approaches.
  - **Findings/Results:** 2–4 slides. Highlight the key results, including at least one figure, and discuss statistical significance where relevant. Answer the research question.
  - **Discussion/Conclusion:** 1 slide. Summarize the implications of the findings, study limitations, and potential future research directions.
  - **Acknowledgements/References:** 1 slide. Cite sources or datasets used in the research.
- Evaluation Criteria:
  - **Content and Research Quality (40%):** The presentation demonstrates depth and clarity in the research presented, articulating the research purpose, data analysis, and findings effectively. The content aligns with the research brief and effectively answers the research question. Interpretation is accurate, insightful, and connected to research questions.
  - **Presentation Delivery and Knowledge (25%):** The team delivers the presentation confidently and cohesively, demonstrating a clear understanding of the research and data analysis. Responsiveness during the Q&A session reflects thorough preparation and strong knowledge of the material. Strong discussion of key takeaways, implications, and practical significance.
  - **Audience Engagement and Accessibility (20%):** The presentation effectively engages a non-expert audience through clear and concise language, well-designed visuals (e.g., charts, tables, or figures), and a logical flow between sections.
  - **Professionalism, Respectful Communication, and Time Management (15%):** The team adheres to the time limit and uses respectful, inclusive, and professional language throughout. The presentation is polished, well-organized, and demonstrates a high level of professionalism.

4. Participation

Participation is a key element of this course, as your map visualizations and analyses offer valuable insights for your peers. Participation accounts for 70% of your grade and is assessed based on the following three criteria:

(a) Attendance

Attendance will be recorded during in-person meetings, as outlined in the **Course Schedule** section. To request an excused absence, you must complete the designated form, ensuring your request aligns with the excused absences outlined in NSCU REG 02.20.03-Attendance Regulations. Please note that **absences reported via email will NOT be accepted as excused. Only submissions through the designated form will be considered.** Excused absences will not impact your attendance record, but unexcused absences will result in a prorated reduction of your participation grade based on the number of meetings missed. Note that our class meetings will be recorded and be accessible through Panopto.

(b) Peer Evaluation of Teamwork

- To promote fairness and accountability in group assignments, each team member will complete a peer evaluation form to assess their teammates' contributions. Peer evaluations will be conducted twice during the semester, with each evaluation submitted after the group presentation. These evaluations allow students to reflect on the distribution of effort within their team and provide constructive feedback on their collaborative experience.
- The within-team peer evaluation is designed to recognize individual contributions, address workload imbalances, and encourage effective teamwork. **Evaluations are confidential and will be reviewed solely by the instructor.**

- **Components of Peer Evaluation:** Each team member will evaluate their peers based on the following criteria using a Likert scale (1 = Strongly Disagree, 2 = Disagree, 3 = Neutral, 4 = Agree, 5 = Strongly Agree). Students will also complete a self-evaluation using the same Likert scale. The criteria include:
  1. Actively and consistently contributed to team discussions.
  2. Took responsibility for assigned tasks.
  3. Participated in the data collection, management, and analysis process.
  4. Supported other team members.
  5. Communicated respectfully and constructively.
- In addition to the Likert-scale questions, students will provide qualitative feedback through an open-ended questionnaire. This includes:
  1. What went well during this group project?
  2. What challenges did your team face, and how were they addressed (if at all)?
  3. Do you believe the workload was equitably distributed among team members? Why or why not?
- **Submission Requirements:** Peer evaluations must be submitted individually and are *mandatory*. Failure to submit a peer evaluation will result in a grade of zero for that portion of the assignment.
- **Grading Process for Peer Evaluations:**
  - There will be two opportunities to participate in peer evaluation. Each peer evaluation constitutes **6%** of the final course grade.
  - If the average peer evaluation score for a student is **75% or higher**, they will receive the full points for peer evaluation.
  - If the average score is **below 75%**, their score will be prorated based on the percentage of the evaluation score received.
  - Peer evaluations will *not* directly impact the grades for the group report or presentation.

(c) Presentation Engagement

Students are expected to actively participate as audience members during other teams' presentations. To earn full credit, each student must ask a minimum of three questions throughout the semester during student presentations.

5. Mini Assignments

There will be three forms you can complete to earn bonus credits throughout the course. Each completed form will contribute 1%p+ to your final grade.

Late Assignments

Late assignments will be accepted with -25% for every day submitted late.

Basis for Final Grade

A (95-100), A- (90-94.9), B+ (85-89.9), B (80-84.9), B- (80-82), C+ (75-79.9), C (70-74.9), C- (70-72), D+ (68-69), D (63-67), D- (60-62), F (0-59).

Grade Dissemination

Grades and assignments in this course will be returned on Moodle.

Requirements for earning a grade of "Satisfactory"

Requirements for earning a grade of "Satisfactory" If you are taking this course for credit only (S/U), your grade will be reported as S (Satisfactory) when course work is equivalent to C- or better or U (Unsatisfactory) when course work is equivalent to less than a C-. For more information, see the Credit Only Courses regulation.

Requirements and procedures for auditing this course

Auditing this course is approved on a case-by-case basis. Please contact the course instructor to attain approval. Refer to the Audit regulation for more information and links to required forms.

Course Schedule

NOTE: While I will make every effort to adhere to the schedule, the specific topics covered each week may be subject to change. Please check course announcements on Moodle regularly for updates and adjustments. **All materials, assignment instructions, and due dates will be available on the Course Website.**

Module	Date	Mode	Topic	Assignment
01	01/09	In-Person	Introduction & Data Management	
02	01/16	In-Person	Research Design	
03	01/23	In-Person	Measurement & Descriptive Statistics	
04	01/30	In-Person	Sampling & Estimation	Problem Set 1
05	02/06	In-Person	Correlation & Causation	
06	02/13	Zoom	Evidence Hierarchy	
	02/20	NA	Work on the Group Assignment	
07	02/27	In-Person	Student Presentation: Evidence Review	Report & Presentation
08	03/06	In-Person	Hypothesis Testing: Means Comparisons	Group-to-Group Feedback
	03/13		Spring Break	Peer Evaluation 1
09	03/20	In-Person	Hypothesis Testing: Regression	
	03/27	NA	Work on the Group Assignment	Problem Set 2
10	04/03	In-Person	Qualitative Research	
11	04/10	In-Person	Survey Design & Implementation	
12	04/17	In-Person	Student Presentation: Research Briefs	Report & Presentation
	04/24		Finals Week	Peer Evaluation 2

Course Policies & Procedures

Group Assignment Policy

Group work is a vital component of this course, designed to simulate real-world research and analytics environments where collaboration is essential for success. This policy outlines expectations for equitable participation, respectful interaction, and accountability to ensure that all team members contribute meaningfully and work together effectively.

- **Team Formation**: Students will work in groups of 3 or 4 for the *Evidence Review* and *Research Brief* assignments. During the first week of the course, students will have five days to form their own groups. If you cannot identify enough students to work with, the instructor will assist in assigning additional members to complete your group.
- **Expectations for Group Work**: All team members are expected to contribute equitably and work collaboratively. Specific expectations include:
  - **Equitable Contributions**: Every member must actively participate in all aspects of the project, including discussions, task completion, and data analysis. Workload should be distributed fairly, and members must hold each other accountable for meeting deadlines and completing assigned tasks.
  - **Engagement and Respect**: Teams must maintain open and respectful communication, ensuring all members have an opportunity to share ideas and contribute meaningfully. Disagreements should be handled professionally and collaboratively, with a focus on achieving project goals.

- **Accountability**: Each team member is responsible for delivering quality work on time. Peer evaluations will assess individual contributions to ensure transparency and fairness.

- **Peer Evaluation of Teamwork**: Peer evaluations will promote fairness by recognizing individual contributions and holding members accountable. Evaluations will occur twice—after the *Evidence Review* assignment and the *Research Brief* assignment—. Individual scores will reflect the quality and extent of each member's contributions as assessed by their peers.
- **Conflict Resolution**: If conflicts arise due to issues such as free-riding (failure of a team member to contribute equitably), disagreements, or other challenges:
  - Teams should first address concerns internally through open communication.
  - If unresolved, the instructor will mediate to ensure fairness and facilitate resolution.
  - Persistent lack of participation or unresolved conflicts may result in reduced grades for the individual, based on peer evaluations and instructor observations.
- **Consequences for Non-Compliance**: Failure to meet group work expectations, including equitable contributions and respectful interaction, may result in lower individual grades for the group project, as determined by peer evaluations.
- **Flexibility Clause**: While this policy provides a framework for effective group work, the instructor reserves the right to adapt it to address specific challenges or exceptional circumstances, ensuring fairness and a positive learning experience.

Diversity and Inclusion Statement

It is my intent that students from all diverse backgrounds and perspectives be well-served by this course. I aim to create an inclusive environment where students' learning needs are met, and the diversity of experiences, identities, and viewpoints enriches our shared learning. I strive to present materials and activities that acknowledge and respect differences in gender identity, sexual orientation, disability, age, socioeconomic status, ethnicity, race, religion, culture, and perspective. Your feedback on enhancing the inclusivity and effectiveness of the course is welcome. If you have suggestions for improving your experience or that of your peers, please feel free to reach out. I also have made an effort to avoid scheduling major deadlines during significant religious holidays. If any deadline conflicts with your religious observances, please contact me at (serena_kim@ncsu.edu) so we can make appropriate adjustments.

Student Rules of Conduct

Students and faculty share responsibility for maintaining an appropriate and respectful learning environment. The NC State REG 11.35.05 Code of Student Conduct sets expectations for behavior in both virtual and physical classrooms, as well as consequences for violations. While diverse viewpoints and interpretations of course content are welcome, any behavior that disrupts others' ability to learn and succeed will be addressed. **Students are expected to adhere to the following rules of conduct** to maintain a productive and respectful learning environment:

- **Respect and Inclusion**: Treat all members of the class—peers, instructors, and guests—with respect. Discrimination, harassment, or inappropriate behavior of any kind is strictly prohibited. This includes professional courtesy and sensitivity toward individuals and topics involving race, color, national origin, gender identity, sexual orientation, disability, age, socioeconomic status, ethnicity, religion, culture, perspective, or other background characteristics.
- **Engage Constructively**: Contribute to class discussions and group work in a positive and respectful manner. Allow others the opportunity to share their perspectives without interruption or judgment.
- **Maintain Academic Integrity**: Follow NC State's policies on academic integrity. Plagiarism, cheating, or unauthorized collaboration on assignments is not allowed.
- **Be Prepared and Focused**: Complete all assigned readings, tasks, and exercises before class. During sessions, silence personal devices, avoid distractions, and stay engaged. Activities such as phone calls, use of headphones, persistent talking, whispering, and web surfing unrelated to the course are prohibited.

- **Communicate Professionally**: Use respectful, professional language in all communications, including emails, discussions, and written assignments.
- **Respect Class Time and Privacy**: Arrive on time for all meetings and inform the instructor in advance if you need to arrive late or leave early. Do not record or share course content, discussions, or other students' work without explicit permission from the instructor and all involved parties.
- **Use Course Tools Appropriately**: Use course-related tools, such as Google Chat, Moodle, and other digital platforms, solely for their intended educational purposes.

Failure to adhere to these behavioral standards may result in disciplinary action. Significant violations may lead to a failing grade for the course and will be reported to the appropriate authorities.

Incomplete grades and withdrawals

Information on incomplete grades can be found at REG 02.50.03 – Grades and Grade Point Average. If you encounter a serious disruption to your work not caused by you and you would have otherwise successfully completed the course, contact your instructor as soon as you can to discuss the possibility of earning an incomplete in the course for the semester, including an agreement on when the remaining work must be done in order to change the grade to the appropriate letter grade. If you must withdraw from a course or from the university due to hardship beyond their control, see Withdrawal Process and Timeline | Student Services Center for information and instructions.

Artificial Intelligence (AI) Policy

The use of Large Language Models (LLMs) such as ChatGPT, Gemini, Perplexity, Phind, Jasper is permitted in this course under the following policies. However, LLMs may produce content that is incorrect, biased, or misleading. Therefore, it is the student's responsibility to verify the accuracy and appropriateness of any content generated by an LLM before including it in their assignments.

Allowed Uses

- ✔ **Code Assistance**: LLMs may be used to generate or debug Python and R code, but students are responsible for ensuring the code is correct.
- ✔ **Brainstorming**: LLMs can be used to brainstorm ideas, such as identifying omitted variables in a model and refine your ideas.
- ✔ **Table Formatting**: LLMs can help combine and format tables. However, please make sure the output from LLM is correct – LLMs make mistakes.
- ✔ **Reference Organizing & Formatting**: LLMs can be used to organize and format references in a coherent style such as APA, Harvard, or Chicago.
- ✔ **Text Editing**: LLMs can be used to correct spelling, typos, and grammar in already written text. Two explicitly allowed prompts in this course are: "Correct grammar, spelling, and punctuation errors" and "Improve clarity and readability without changing the original content."

Allowed Uses

- ⊘ **Drafting Text**: LLMs should not be used to draft your writing. For example, you cannot provide a single sentence or a short outline and have the LLM generate an entire paragraph or section for your assignment. You cannot have LLM draft the explanation and motivations of your analysis and data visualization. All written content must be your own work.
- ⊘ **Generating Figures**: LLMs cannot be used to create figures for your assignments.
- ⊘ **Data Analysis**: Students are not allowed to upload datasets to LLMs for analysis or to automatically generate results.
- ⊘ **Uploading Our Course Materials to LLM Platforms**: Do not upload any part of this course slides, assignments, or datasets provided by the instructor to LLM platforms. Doing so may violate intellectual property rights.

- ⊘ **Calculations**: LLMs cannot be used for performing calculations. General calculators may be used instead.

Academic Integrity: Students have the responsibility to ensure that their work remains original. The use of LLMs must comply with the university's academic integrity policies. Plagiarism, whether facilitated by an AI tool or any other source, is strictly prohibited. Students must properly cite all sources and ensure their work is the result of their independent effort. For example, originality checking software can be used in this course to detect the originality of the student submission.

Documentation Requirement: For every assignment, students must include a section explicitly detailing how LLMs were used, **including the specific prompts**. If LLMs were not used, students should state, "LLMs were not used in this assignment."

Failure to adhere to the AI Policy may result in academic penalties, including potential failure of the course, in accordance with the university's policies on academic misconduct. Students are encouraged to ask the instructor for clarification about these policies as needed.

University Policies

Academic integrity and honesty

Students are required to comply with the university policy on academic integrity found in the Code of Student Conduct 11.35.01 sections 8 and 9. Therefore, students are required to uphold the Pack Pledge: "I have neither given nor received unauthorized aid on this test or assignment." Violations of academic integrity will be handled in accordance with the Student Discipline Procedures. Please refer to the Academic Integrity web page for a detailed explanation of the University's policies on academic integrity and some of the common understandings related to those policies.

Student Privacy

Originality Checking Software: Software (e.g., Turnitin) may be used in this course to detect the originality of student submissions.
Class recording statement: In-class sessions are recorded in such a way that might also record students in this course. These recordings will NOT be used beyond the current semester or in any other setting outside of the course.
Class privacy statement: This course requires online exchanges among students and the instructor, but NOT with persons outside the course. Students may be required to disclose personally identifiable information to other students in the course, via electronic tools like email or web-postings, where relevant to the course. Examples include online discussions of class topics and posting of student coursework. All students are expected to respect the privacy of each other by not sharing or using such information outside the course.

Other Policies

Students are responsible for reviewing the NC State University Policies, Rules, and Regulations (PRRs) which pertain to their course rights and responsibilities:

- Equal Opportunity and Non-Discrimination Policy Statement and and Additional References
- Code of Student Conduct
- Grades and Grade Point Average
- Credit-Only Courses
- Audits

Student Resources

Academic and Student Affairs maintains a website with links for student support on campus, including academic support, community support, health and wellness, financial hardship or insecurity, and more. Find Help on Campus.

Disability resources

Reasonable accommodations will be made for students with verifiable disabilities. In order to take advantage of available accommodations, students must register with the Disability Resource Office (DRO). For more information on NC State's policy on working with students with disabilities, please see the Policies, Rules and Regulations page maintained by the DRO and REG 02.20.01 Academic Accommodations for Students with Disabilities. **Please reach out to the instructor (serena_kim@ncsu.edu) to submit an accommodation letter within the first three weeks of the semester.**

Safe at NC State

At NC State, we take the health and safety of students, faculty and staff seriously. The Office for Institutional Equity and Diversity supports the university community by providing services and resources to support and guide individuals in obtaining the help they need. See the Safe at NC State webpage for resources.

Supporting Fellow Students in Distress

As members of the NC State Wolfpack community, we each share a personal responsibility to express concern for one another and to ensure that this classroom and the campus as a whole remains a healthy and safe environment for learning. Occasionally, you may come across a fellow classmate whose personal behavior concerns or worries you, either for the classmate's well-being or yours. If you feel this way, I would encourage you to report this behavior to the NC State CARES website. Although you can report anonymously, it is preferred that you share your contact information so they can follow-up with you personally.

Course Evaluations

ClassEval is the end-of-semester survey for students to evaluate instruction of all university classes. The current survey is administered online and includes 12 closed-ended questions and 3 open-ended questions. Deans, department heads, and instructors may add a limited number of their own questions to these 15 common-core questions.

Each semester students' responses are compiled into a ClassEval report for every instructor and class. Instructors use the evaluations to improve instruction and include them in their promotion and tenure dossiers, while department heads use them in annual reviews. The reports are included in instructors' personnel files and are considered confidential.

Online class evaluations will be available for students to complete during the last two weeks of the semester for full semester courses and the last week of shorter sessions. Students will receive an email directing them to a website to complete class evaluations. These become unavailable at 8am on the first day of finals. More information about ClassEval.

- ClassEval Website
- Contact ClassEval Help Desk: classeval@ncsu.edu

Syllabus Modification Statement

Our syllabus represents a flexible agreement. It outlines the topics we will cover and the order we will cover them in. Dates for assignments represent the earliest possible time they would be due. The pace of the class depends on student mastery and interests. Thus minor changes in the syllabus can occur if we need to slow down or speed up the pace of instruction. To ensure course continuity, changes made to the method of instructional delivery, course structure, course schedule, number of assignments, grading or other aspects of the course after the start of the term will be communicated to all students in written form (e.g., dated syllabus revision or syllabus addendum) when course changes are implemented.