PA 541 GEOGRAPHIC INFORMATION SYSTEMS (GIS) FOR PUBLIC ADMINISTRATION

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: Wed, 6:10 – 8:30pm COURSE STRUCTURE: Hybrid CLASS LOCATION: 113 Tompkins Hall COURSE WEBSITE: courseweb.site/pa541-2025 OFFICE HOURS: Schedule an Appointment

COURSE OVERVIEW

COURSE DESCRIPTION

This course introduces the application of Geographic Information Systems (GIS) in public administration and policy. Students learn to manage, analyze, and visualize spatial data relevant to public services. GIS software and programming are used throughout the course.

COURSE CONTENT

Focusing on practical applications and data-driven decision-making, this course explores spatial data in relation to various issues in the public sector, including public safety, urban planning, disaster resilience, social equity, public infrastructure, and social services. Students will use Python programming and Ar-cGIS Online to aggregate spatial data, perform spatial regression to analyze relationships, and conduct clustering analysis to identify patterns. This course is ideal for students addressing complex social challenges in public and nonprofit sectors, the course requires basic knowledge of statistics and datasets. Prior experience with Python programming is helpful.

LEARNING OBJECTIVES

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

- □ Understand Geospatial Data (LO1): Learn the types, structures, and processing workflows of geospatial datasets commonly used in the public sector.
- □ **Design Interactive Visualizations (LO2)**: Develop web-based interactive maps using ArcGIS Online and StoryMaps, applying effective visualization and map design principles.
- □ Analyze Spatial Data (LO3): Manage and analyze spatial datasets using Python and/or ArcGIS Online/Pro to address challenges in public safety, urban planning, and social equity.
- □ Apply GIS Techniques (LO4): Use spatial regression, clustering analysis, spatial optimization techniques, spatial interpolation, and other modeling methods to analyze relationships, identify trends, and solve complex spatial problems.
- □ Create and Communicate GIS Solutions (LO5): Develop GIS-based solutions that demonstrate technical proficiency, practical application, and clear communication of insights to stakeholders in public administration and policy.
- □ Evaluate Spatial Data Analytics (LO6): Assess GIS analysis results to solve real-world problems, support data-driven decision-making, and effectively communicate findings to diverse audiences.

COURSE STRUCTURE

This course is delivered in a hybrid format, meaning it has asynchronous and synchronous components. Asynchronous components are delivered through the Course Website. Learning activities in this course include reading assignments, videos, presentations, quiz, peer evaluations, and individual projects.

COURSE PREREQUISITES

PA 515 (Research Methods and Analysis), ST 312 (Introduction to Statistics II), PS 571 (Research Methods and Analysis), EC 351 (Econometrics I), or equivalent. Students are expected to have the following foundational knowledge and skills prior to this course:

- Probability, random variables, sampling, and estimation (point and interval)
- Correlation, simple regression, and multiple regression
- One-sample t-tests, one-way analysis of variance, and categorical data analysis (e.g., contingency tables)

TEXTBOOKS AND COURSE MATERIALS

REQUIRED TEXT



Title: Geographic Data Science with Python Author: Sergio Rey, Dani Arribas-Bel, and Levi John Wolf Publisher: Chapman and Hall Publication year: 2023 ISBN-13: 978-1032445953 Available at: geographicdata.science/book/intro.html



Title: Top 20 Essential Skills for ArcGIS Online Author: Craig Carpenter, Jian Lange, Bern Szukalski Publisher: Esri Press Publication year: 2024 Available at: catalog.lib.ncsu.edu/catalog/NCSU5957521

OPTIONAL TEXT

- Luc Anselin. An Introduction to Spatial Data Science with GeoDa. CRC Press, 2024.
- Joel Lawhead, Learning Geospatial Analysis with Python. Packt Publishing Ltd, 2019.
- Silas Toms, Paul Crickard and Eric Van Rees. Mastering Geospatial Analysis with Python. Packt Publishing Ltd, 2018.
- Bonnie Shrewsbury and Barry Waite. Top 20 essential skills for ArcGIS Pro. Esri Press. 2023
- Henrikki Tenkanen, Vuokko Vilhelmiina Heikinheimo, and David Whipp. Introduction to Python for Geographic Data Analysis. 2021.

💷 Online Resources

- ArcGIS StoryMaps: doc.arcgis.com/en/arcgis-storymaps/gallery/
- ArcGIS Hub: hub.arcgis.com/search
- PolicyMap: lib.ncsu.edu/databases/policymap
- US Census Mapping Files: TIGER/Line Shapefiles

SOFTWARE AND TOOLS

We will primarily use ArcGIS Online and the Python programming environment in Google Colab for

this class. Students may also choose to use ArcGIS Pro for assignments and exercises if preferred. The instructor may demonstrate certain analyses using ArcGIS Pro. All these software and tools are available to NCSU students at no cost.

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, announcements, and important updates.
- Google Forms: Tool for submitting assignments and completing peer reviews.
- **Panopto**: Access to course recordings. Class meeting recordings are only available to enrolled students.
- ArcGIS Online: A platform for students to share maps and geospatial data.
- **Google Sites**: Students will develop their GIS work portfolios on Google Sites, hosting interactive, web-based maps.

COMMUNICATION GUIDELINES

Communication with the Instructor

- **Preferred Mode of Communication**: The preferred mode of communication for course activities is Google Chat. This platform allows us to track questions and discussions effectively over time. Responses can be expected within one business day (i.e., not over the weekend).
- 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 (i.e., not over the weekend). If I email you directly, please reply within two business days. It is recommended that you 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.

OTHER STUDENT EXPENSES

None.

GRADING & FEEDBACK

ASSIGNMENTS & EVALUATION PROCEDURE

Component	Weight	Period	Learning Obj.
1. Spatial Skills Exercise	30%		
Exercise 1. Map Fundamentals	5%	Week 01-04	LO1, LO2, LO5
Exercise 2. Spatial Integration	10%	Week 01-04	LO1, LO2, LO5
Exercise 3. Spatial Analysis	15%	Week 01-04	LO1, LO2, LO5
2. Portfolio	45%		
Part 1. Map Fundamentals: "Building the Basics"	10%	Week 01-04	LO1, LO2, LO5
Part 2. Spatial Integration: "Connecting the Layers"	13%	Week 05-08	LO2, LO3, LO5
Part 3. Final Project: "Your Signature Map"	22%	Week 09-12	LO3, LO4, LO5
3. Participation	25%		
(a) Attendance	10 %	Week 01-16	LO1 – LO6
(b) Presentation Engagement	7 %	Week 01-16	LO6
(c) Peer Evaluation Report	8 %	Week 01-16	LO6
4. Quiz (Bonus Credits)	+3%	Week 01-16	LO1 – LO6

1. Spatial Skills Exercise

The Spatial Skills Exercise aims to develop students' abilities to visualize, analyze, and work with spatial data. This assignment focuses on applying geospatial data management and analysis techniques using Python and the ArcGIS suite. Students will answer one or two prompts, which may require creating maps or performing spatial analyses. The primary goal is to provide hands-on practice with the tools and concepts covered in lectures and in-class activities. Students' submissions will be evaluated based on the <u>evaluation criteria</u>:

- Answering the Questions Correctly (70%): Clarity and accuracy in the answers.
- Interactive Map & Cartographic Principles (20%): Adherence to cartographic principles, including the use of appropriate projections, symbology, labeling, color schemes, and layout, as well as ensuring the functionality of the interactive map.
- Effort (10%): Demonstrated time, thoughtfulness, and care in preparing the map and accompanying explanations.

2. Portfolio

Students will individually create a portfolio over the course of the semester to showcase their work, including maps, analyses, and presentations. The portfolio will consist of three sections (parts) and will be developed and shared using Google Sites. For each section, students are required to: (a) submit a link to the web page containing the map and (b) deliver a presentation. Specific requirements for each component of the portfolio will be provided on the Course Website.

Presentations allow students to refine their maps and narratives to address the needs of a specific audience, such as policymakers, community stakeholders, emergency management teams, or public administrators. Students will prepare a 6-8 minute in-class presentation that tells a compelling story using the map. Students must identify their target audience and tailor the presentation to meet their priorities.

- Components of each portfolio (hosted on Google Sites or ArcGIS StoryMaps):
 - Project Introduction: An introductory paragraph outlining the motivation or context for the project and the key question or problem it addresses.
 - Audience Description: A brief overview of the hypothetical audience, specifying their role, priorities, and how this specific GIS analysis is relevant to their interests.

- Interactive Map: At least one polished, easy-to-read interactive map embedded within the Google Site or ArcGIS StoryMaps, adhering to cartographic principles such as appropriate symbology, labeling, and projections.
- Data and Methods: A clear explanation of the data sources, including their origin and relevance, and the methods applied for data processing and analysis.
- Key Findings: A concise summary of the most important insights derived from the analysis, emphasizing how these findings are relevant to the audience and address the project's key question.
- Evaluation Criteria:
 - Audience Identification (5%): Clear and thoughtful identification of the hypothetical audience, including their role and priorities. Demonstrates how the map and analysis address their specific needs or decision-making processes.
 - Interactive Map Quality (30%): A well-designed, polished, and visually appealing map that adheres to cartographic principles. Interactive features, such as layers and pop-ups, are effectively utilized to enhance understanding and usability.
 - Storytelling & Insights (35%): A compelling and coherent narrative that highlights key findings and clearly communicates the purpose and value of the analysis. The content is engaging, tailored to the audience, and effectively answers the posed question.
 - Explanation of Data & Methods (20%): A clear, concise explanation of the data sources, including details such as units, methods, and analytical approach. Avoids unnecessary jargon while maintaining technical accuracy.
 - Delivery & Engagement (10%): Confident and professional presentation with enthusiastic delivery. Effectively engages the audience using clear visuals, thoughtful questions, and strong communication techniques, fostering discussion and interest.

3. 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, multimodal, and remote 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) **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 four questions throughout the semester during student presentations.
- (c) **Peer Evaluation Report:** Students will have two opportunities to provide constructive feedback on your peers' presentations. Although your evaluations will not directly affect their grades, your input will offer valuable insights to help your classmates improve. Each time, students will evaluate the work of two peers. **The feedback will be shared with the presenters, but your evaluations will remain anonymous**.

4. Quiz

There will be two in-person quizzes, each consisting of 1-3 questions, conducted during the semester to evaluate students' understanding of material covered in online sessions. These quizzes are openbook; however, the use of search engines (e.g., Google) or AI tools (e.g., Gemini) is strictly prohibited. Quizzes must be taken in person, as virtual participation cannot ensure academic integrity. Participation in these quizzes is optional and intended for bonus credit; they are not required to earn full credit for the course. Quizzes will only be administered during designated in-person sessions, with no alternative dates or retake opportunities available. 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. Assignments submitted later than 24 hours past the original due date will NOT be accepted.

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: This hybrid course does not meet every week. While I will strive to adhere to this plan, the specific topics covered each week may vary. Please stay attentive to course announcements on Moodle and Google Chat for updates or adjustments to the schedule. All materials, assignment instructions, and due dates will be posted on the Course Website.

Module	Date	Mode*	Торіс	Assignment
01	01/08	In-Person	Getting Started with Python for GIS	
02	01/15	Multimodal	ArcGIS Online & Finding Spatial Data	
03	01/22	Online	Strategies for Effective Map Design Exercise 1	
04	01/29	Multimodal	Visualizing Spatial Patterns	
05	02/05	Multimodal	Geospatial Overlay and Intersection	
	02/12	Remote	Presentation 1. "Building the Basics"	Portfolio Part 1
06	02/19	Online	Spatial Regression I. Introduction	
07	02/26	In-Person	Spatial Regression II. Application	
08	03/05	Multimodal	Clustering and Hot Spot Analysis	Exercise 2
	03/12	NA	Spring Break	
	03/19	In-Person	Presentation 2. "Connecting the Layers"	Portfolio Part 2
09	03/26	Multimodal	Networks and Route Optimization	
10	04/02	Online	Interactive Maps with ArcGIS StoryMaps	Exercise 3
11	04/09	In-Person	In-Class GIS Hackathon	
	04/16	In-Person	Presentation 3. "Your Signature Map"	Portfolio Part 3

* Notes on the methods of session delivery: "In-Person" refers to classes held physically on campus with no option to join remotely via Zoom. "Online" refers to fully virtual sessions conducted asynchronously (no meetings on campus or Zoom), with pre-recorded videos available on the course website. "Multimodal" indicates the instructor will be on campus, and students may choose to attend either in person or online via Zoom. But in-person attendance is encouraged, as the instructor cannot actively monitor Zoom for questions during the session. "Remote" refers to synchronous online sessions conducted exclusively via Zoom with real-time interaction.

COURSE POLICIES & PROCEDURES

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.
- Sensitive 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."

Prohibited 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.
- **O** Generating Figures: LLMs cannot be used to create figures for your assignments.
- **O** Data Analysis: Students are not allowed to upload datasets to LLMs for analysis or to automatically generate results.
- O 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.

O 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.