University of North Carolina at Charlotte
College of Health and Human Services (CHHS) & School of Data Science (SDS)
Department of Public Health Sciences (PHS)
Spring 2023

Course Number   HCIP 6102

Course Title   Healthcare Data Analysis

Course Credit   3 Graduate Credits

Pre-requisites   None

Course Day/Time/ Asynchronous Online Internet
Location/
Instructional
Method

Faculty
Laura H. Gunn, PhD (Pronouns: she/her/herself)
Associate Professor, Public Health Sciences
Director, CHHS Biostatistics Core
Affiliate Faculty, School of Data Science
E-mail: laura.gunn@uncc.edu

Virtual Office Hours for Dr. Laura Gunn
Thursdays 9:30-11:30 am
And by appointment
**Updated on January 9th: Slightly modified hours for the following 5 dates:*
January 26, February 16, April 6, April 20, & May 4: 9-10 am & 11 am–12 pm

A Zoom link is provided in Canvas for accessing virtual office hours.

I am always happy to schedule a mutually convenient time outside of office hours if you cannot attend these days/times. I am also happy to address questions you may have via email.

I encourage you to send me (or the Teaching Assistant, TA; see details below) an email ahead of office hours particularly for any programming/coding/de-bugging questions you may have along with a detailed description of what you have tried and why it does not work (e.g., error messages you may be receiving, etc.). This will give me and/or the TA time to review and test your code to help you de-bug it. With the larger graduate class size that we have, there could be instances where multiple students are in the virtual office hours waiting room, so sending emails ahead of office hours will hopefully give me and/or the TA a chance to more efficiently guide you so as to hopefully mitigate any potentially longer waiting room times for you and/or your peers.

Teaching Assistant (TA)
Adetunji (TJ) Omole
aomole@uncc.edu

Virtual Office Hours for TA Adetunji (TJ) Omole
Mondays & Tuesdays: 3:30-4:30 pm
Wednesdays & Fridays: 10:30-11:30 am
And by appointment
A Zoom link is provided in Canvas for accessing TJ's virtual office hours.

Catalog Course Description (taken directly from the UNC Charlotte graduate catalog)
Develops skills in the management, analysis, and reporting of health data, including introductory applied statistical analysis. Students use statistical software (such as SAS, R, or Python) to run analyses and generate quantitative evidence to inform public health, health policy, healthcare operational, and clinical decision-making that improves quality, reduces health disparities, adjusts for risk, quantifies access, measures population health, and evaluates policies and programs. Focuses on interpreting and visualizing statistical output to generate reports and develop clinical, financial, and operational recommendations for communication to stakeholders. Touches upon SQL, qualitative methods, and application of legal and ethical precepts to healthcare data analysis.

Course Overview
This course serves as a required course in the: Master of Public Health (MPH) in both Population Health Analytics (PHAN) and Epidemiology (EPID); Master of Science in Health Informatics and Analytics (MS-HIAN, Health Services Outcomes (HSO) Concentration); and Graduate Certificate in Health Informatics and Analytics programs. It is designed to provide a foundation in both analytics/statistics and basic programming (which is most oftentimes required in analytics and epidemiologic positions in the workforce) for subsequent courses taken throughout these programs involving analytics/epidemiology. The course also prepares you for some of the basic analytics programming you will need within the professional workforce.

Course Objectives
- CO1: Explain the role analytics serves in the disciplines of public health, medicine, and the broader healthcare sciences.

- CO2: Execute accurate and functional SAS code for correctly reading, managing, and analyzing public health, medical, or healthcare data.

- CO3: Develop critical thinking skills for solving challenging, real world public health, medical, or healthcare analytic problems.

- CO4: Interpret correctly statistical analyses of public health or healthcare questions.

- CO5: Apply methods of healthcare data analysis using SAS to a public health, medical, or healthcare dataset of your group's choice within a team project.

- CO6: Communicate effectively public health or healthcare analytic results in a meaningful way for decision making.

MPH Competencies Assessed in This Course

This course contributes to and assesses the following *MPH Foundational Competencies:*

- Analyze quantitative and qualitative data using biostatistics, informatics, computer-based programming and software, as appropriate. (Competency #3)
- Interpret results of data analysis for public health research, policy or practice. (Competency #4)
- Communicate audience-appropriate public health content, both in writing and through oral presentation. (Competency #19)
- Perform effectively on interprofessional teams. (Competency #21)

This course contributes to and assesses the following MPH-PHAN & MPH-EPID Concentration Competencies:

MPH/Population Health Analytics (PHAN)-Specific Competencies:

- Write programming code (SAS, R, SPSS, Stata, Python, or similar analytic programming language) to analyze a dataset of any size. (MPH/PHAN Competency #3)
- Apply advanced statistical techniques and hypothesis testing methods in drawing evidence-based conclusions from data analyses. (MPH/PHAN Competency #4)
- Use data visualization tools to enhance presentations to stakeholders. (MPH/PHAN Competency #5)

MPH/Epidemiology (EPID)-Specific Competencies:

- Assess the distribution and determinants of a disease for a given population using meaningful epidemiological measures. (MPH/EPID Competency #2)

- Demonstrate an ability to formulate a research question and apply appropriate methods to analyze, interpret, and present epidemiologic data. (MPH/EPID Competency #4)

- Manage, clean, describe, and display data. (MPH/EPID Competency #5)

- Apply appropriate statistical methods to manipulate and analyze public health data. (MPH/EPID Competency #6)

Assessment of the above competencies is embedded within assignments and weekly problem-solving exercises embedded within the course slide materials involving a national population health dataset from the National Center for Health Statistics, as well as within a data analytics team project and report where students identify a public health question and generate an analysis from a population health dataset.

Required & Recommended Materials/Texts

I have developed the course materials (slides, programming demonstrations of exercises and real-world public health and healthcare problems, etc.) to be all-inclusive and freely accessible to students enrolled in this class so that no text is required.

- **Required Course PowerPoint Materials/Slides** (freely available in Canvas)
- **Required SAS Statistical Software** (not necessary to purchase, as it is available for UNC Charlotte students & faculty via the university software center at https://software.uncc.edu)

- Any additional required readings will be communicated on the course Canvas site.

Permission to Use Course Materials:

All course PowerPoint slides, assignments, quiz(zes), and the Data Analytics Team Project Outline/Rubric were created by Dr. Laura Gunn, Associate Professor of Public Health Sciences, Affiliate Faculty of the School of Data Science, & Director of Biostatistics Core, University of North Carolina at Charlotte. Permission to use, modify, and/or distribute any of these materials must be approved in writing by Dr. Gunn. If approved, please reference the work in the following format: Gunn, L. (2019). HCIP 6102: Healthcare Data Analysis, Module XXX [Course Presentation]. Retrieved from XXX.

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For those who would like to supplement these materials with a recommended text(s), then any of the following texts could serve as supplemental resources. You could use any of these texts to dive more in-depth for some of the covered topics in the course, as well as to learn about other topics beyond the scope of this course. These are reader-friendly introductory books for using SAS for statistical analyses that combines programming, analytics, and visualization in SAS:

- **Recommended Texts**:
  - Delwiche L.D., Slaughter S.J. The Little SAS Book, 6th Edition. SAS Institute, Cary, NC; 2019. (Either of the 5th (2012) or 6th (2019) editions are fine)
  - Cody R. SAS Statistics by Example, 1st Edition. SAS Institute, Cary, NC; 2011.
  - Der G., Everitt B.S. Applied Medical Statistics Using SAS, 1st Edition. Chapman & Hall/CRC, Boca Raton, FL; 2012.
  - Cody R.P., Smith, J.K. Applied Statistics and the SAS Programming Language, 5th Edition. Pearson, New York, NY; 2005.
  - Cody R. Learning SAS by Example: A Programmer's Guide, 2nd Edition. SAS Institute, Cary, NC; 2018.

- **Additional Supplemental Resources:** Depending on your background skills, you may wish to review additional supplemental resources. The faculty have identified the following supplemental resources as broadly useful to all students and which are freely available:

  - Lane, D. Online Statistics Education: An Interactive Multimedia Course of Study. Available at: http://onlinestatbook.com. Accessed: 13 August 2022.
    Note: This reference provides additional statistical explanations and examples.
  - SAS support website: https://support.sas.com/software/products/university-edition
  - Boston University School of Public Health. Boston University School of Public Health Writing Guide. Available at: https://populationhealthexchange.org/teph-public-health-writing-guide. Accessed: 13 August 2022.
    Note: Writing is an essential component of communicating analyses and interpreting results. This reference is a very useful resource for many different forms of writing – from email communications to reports and manuscripts. It covers writing involved in everyday email communications with peers, faculty, employers, etc., as well as more scientific writing for communicating analyses and interpreting results. Thus, you will perform both types of writing throughout this course, within other courses in your academic program, and in the workforce now and in the future.

Required Equipment
1. Laptop/personal computer (PC)
2. Access to internet with secure connection and virus protection
3. SAS programming language (freely available download – see Module 0 for details)
4. Microsoft Office (all assignments must be turned in as a .doc, .docx, or pdf file)

Course Conduct
This asynchronous online course is fully online and requires access to a computer, internet (for Canvas, Zoom, etc.), and SAS (see Course Materials below and Module 0 regarding access to SAS statistical software). All analyses should be performed using SAS unless stated otherwise. The course is organized by module in which each module covers multiple topics. Within each module, the module overview page lists the module objectives for that module, the materials needed for that module, corresponding activities and assessments, and alignment among activities, assessments, module objectives, and course objectives. The course is taught using a mixture of: PowerPoint slides containing concepts, SAS applications, and problem-solving exercises; discussion posts; quiz; assignments; exams; and data analytics team project.

This healthcare data analysis course is demonstrated using SAS statistical software and programming language, which is widely used within the public health/healthcare domain – particularly among pharmaceutical companies, some hospital systems, and some governmental agencies (e.g., Food & Drug Administration). Therefore, submitted

coursework will be expected in SAS and using the concepts learned throughout this course.

While you may be able to go quickly through the slides within each module, it is important that you master the skills through practicing analyses and programming/coding and replicating all demonstrations provided throughout the course materials, rather than simply having a theoretical understanding of concepts. Most statistical analysis and programming expertise is developed through practice (as well as some trial and error!). I encourage you to dedicate multiple hours a week creating your own variations of the sample analyses and programming/coding provided in each module, testing your own mastery of concepts through increasingly complex problems, and exploring additional materials, which I provide as supplementary references above and throughout the modules, that you may find useful based on your professional goals. Note that this course focuses on breadth of knowledge to succinctly cover many basic statistical analyses using programming/coding to solve public health and healthcare problems. I encourage you to explore particular topics of interest to you more in depth.

The course topic schedule/outline communicates the expected course modules, topics, and assessments along with their scheduled timelines/due dates. In the event that timelines and/or assessment due dates need to be modified, such changes will be communicated via a Canvas announcement and updated in the Canvas assignment-specific link.

Module start dates will generally occur on Mondays (i.e., Module 1's start date is Monday, January 9th, 2023); and, for modules that cover a week's time frame, then the slides within that module are expected to be completed by the end of that week (i.e., prior to the next module's start date). Modules will be posted no later than the morning of the module start date (though, as we progress throughout the semester, I anticipate that modules will be posted further in advance) so that you will have **at least** a full week to work within each module. Modules are self-paced so that you can complete each module within the assigned week's period.

Graduate Grading Scale
This course uses the standard graduate decile grading system:
A = 90-100%
B = 80-89%
C = 70-79%
U = <70%.

Evaluation Methods/Assessments
Course assessments will include the following:
- Assignments: 32% (4 assignments at 8% each)
- Module 1 Quiz: 2%
- Discussion Posts: 6%
- Data Analytics Team Project: 20%

- Midterm Exam: 20%
- Final Exam: 20%

Statistical analysis and programming requires students to learn concepts cumulatively, building on prior concepts covered in the materials. Thus, you will be expected to demonstrate the cumulative knowledge and skills gained throughout this course via the different evaluative assessments of your work.
- All evaluative assessments of your work are due after the corresponding content has been covered based on the schedule in the table further below.

When the evaluative assessment requires you to produce SAS code, it is your responsibility to ensure that the code is spelled correctly in the submission (including lowercase versus uppercase). If the code does not work or does not produce the correct results as submitted, then points will be deducted. **Please also refer to assessment instructions/rubrics provided in the course Canvas site.**

Individual & Team Work
- Module 1 Quiz and exams <u>must</u> be completed individually.
- However, you may work in teams (and are encouraged to do so), if you would like, on the four assignments.
- If you choose to work in teams on assignments, then each individual must submit their own assignment, as you will be evaluated on the individual assignment that you submit.
- If you work with others on assignments, then please include the names of those with whom you worked for each assignment.
- You will also work in teams for the data analysis project. The data analytics team project requires collaboration among 4-6 students per team. The team project will involve analysis, by applying appropriate descriptive and inferential statistical methods as well as data visualization techniques, of a health dataset of your team's choice, using SAS programming, to draw evidence-based conclusions. Information and instructions regarding course activities, including the team project, are provided in Canvas.

Due Dates
Scheduled due dates for course assessments are provided in the course topic and schedule table below and will also be posted in the Canvas course site. Please plan your time accordingly. On average, graduate courses are expected to take about 9 hours per week of your time for reading materials, performing and interpreting statistical analyses, programming/coding, completing assignments, etc. Depending on your learning pace, as well as experience and/or comfort with programming and/or analytics/statistics, you may need more or less time than expected.

Late Policy for Evaluative Assessments
My 'standard' late policy is the following (**unless you have contacted me ahead of the due time informing me of any delays due to understandable circumstances and which I have approved an extension)**:

- Any late evaluative assessment will incur a 10-point deduction for each day it is late, until I post grades for that assessment.
- If your work is submitted late on the actual due date (i.e., after the due time – e.g., submitted at 6 pm when it was due at 5 pm), then there will be a 5-point deduction to the grade.
- I will not accept late assessments after I post grades except for approved extenuating circumstances communicated with me.
- ***With this said, please reach out to me in advance of the due date/time if you are unable to meet it, and we can discuss whether a reasonable extension is appropriate.***

Please contact me as soon as possible if you do not think you will be able to submit your work on time due to extenuating circumstances. *I realize that there can always be unknown life circumstances that arise that may shift your schedules, time commitments, etc. And, we are still in the midst of a global pandemic that is also still affecting our daily way of life. Therefore,* ***please communicate with me in advance of the due date/time if you think you may need extra time to complete an assessment. I will do my best to accommodate extension requests as-needed due to extenuating/special circumstances or any disruptions that may result from the continued pandemic.*** *Note: For personal events (e.g., attending a wedding, taking a 3-day weekend trip), you will need to submit your work ahead of the due date if you will be away during the due date, as I generally will not approve extensions for these kinds of events. As mentioned above, you will have at least a week to complete each module, and as we progress throughout the semester, I anticipate modules will be available much earlier than this.*

Course Schedule
A preliminary schedule (by week) of modules, topics, and assessment due dates is provided below. Please also refer to the UNC Charlotte Academic Calendar (https://registrar.charlotte.edu/printable-calendar) for other important dates (e.g., last day to drop/add, last day to withdraw, etc.) throughout the semester.

Note: There may be modifications to this schedule. If this occurs, I will communicate any such modifications via Canvas announcements.

Week	Dates	Module & Topics	Assessments Due
1	1/9-1/15	**Start Here Module: Introductions, Syllabus, Resources, etc.** **Module 0: Accessing/Downloading SAS** **Module 1: Introduction to Healthcare Data Analysis** (Big) Data Storage, Security, & Dynamic Collection & Capture; Variable types; Data Dictionaries/User Guides, etc.	Self-Introduction and Response & Module 1 Quiz Due by 1/16; 11:59 pm ----- Assignment 1 Due by 1/23; 5 pm

2	1/16-1/22	**Monday, January 16th is Martin Luther King Jr. Day;** **Module 2: Introduction to SAS Programming for Statistical Analyses** **Module 3: Descriptive Analyses of Healthcare (Big) Data in SAS**	Discussion Posts Due by 1/22; 11:59 pm
3	1/23-1/29	**Module 4: Visualization of Healthcare Data in SAS**	Discussion Post Due by 1/29; 11:59 pm Assignment 2 Due by 1/30; 5 pm
4	1/30-2/5	**Module 5: Variable Creation, Transformation, & Handling Missing Data within Healthcare Applications in SAS**	Discussion Post Due by 2/5; 11:59 pm Assignment 3 Due by 2/6, 5pm
5	2/6-2/12	**Module 6: Hypothesis Testing Review & T-tests Using Healthcare Data in SAS**	Discussion Post Due by 2/12; 11:59 pm
6	2/13-2/19	**Midterm Exam (Module 7)**	Midterm Exam Due by 2/19; 11:59 pm
7	2/20-2/26	**Module 8: Data Analytics Team Project Information**	Discussion Post Due by 2/26; 11:59 pm Assignment 4 Due by 3/20; 5 pm
8	2/27-3/5	**Spring Break**	
9	3/6-3/12	**Module 9: More Hypothesis Testing within Healthcare Applications in SAS**	Discussion Post Due by 3/12; 11:59 pm
10	3/13-3/19	**Module 10: Simple Linear Regression Using Healthcare Data in SAS**	Discussion Post Due by 3/19; 11:59 pm
11	3/20-3/26	**Module 11: Multiple Linear Regression Analysis within Healthcare Applications in SAS**	Discussion Post Due by 3/26; 11:59 pm
12	3/27-4/2	**Module 12: Multiple Logistic Regression, Odds Ratios, & Relative Risks within Healthcare Applications in SAS & Peer-reviewed Literature**	Discussion Post Due by 4/2; 11:59 pm
13	4/3-4/9	**Team Work on Data Analytics Team Project (see Module 8)**	
14	4/10-4/16	**Team Work on Data Analytics Team Project (see Module 8)**	
15	4/17-4/23	**Team Work on Data Analytics Team Project (see Module 8)**	Data Analytics Team Project Due by 4/23; 11:59 pm
16	4/24-4/30	**Review**	
Final Exam	5/1-5/7	**Final Exam**	Final Exam Due by 5/7; 11:59 pm

Relevant University, College, & Course Policies

Code of Student Responsibility (taken directly from the introductory statement on the UNC Charlotte brochure about the Code of Student Responsibility)
The UNC Charlotte Code of Student Responsibility (the Code) sets forth certain rights and responsibilities in matters of student discipline. The Code defines these

responsibilities and guarantees you certain rights that ensure your protection from unjust imposition of disciplinary penalties. You should familiarize yourself with the provisions and procedures of the Code. The entire Code may be found at: https://legal.charlotte.edu/policies/up-406.

Academic Integrity
All students are required to read and abide by the Code of Student Academic Integrity. Violations of the Code of Student Academic Integrity, including plagiarism, will result in disciplinary action as provided in the Code. Students are expected to submit their own work, either as individuals or contributors to a team assignment. Definitions and examples of plagiarism and other violations are set forth in the Code. The Code is available from the Dean of Students Office or online at: https://legal.charlotte.edu/policies/up-407 (or see the following for the pdf version: https://legal.charlotte.edu/sites/legal.charlotte.edu/files/media/2021-08-31_UP-407-CodeOfStudentAcademicIntegrity.pdf).
Faculty may ask students to produce identification at examinations and may require students to demonstrate that graded assignments completed outside of class are their own work.

Plagiarism Detection
As a condition of taking this course, any assignments that the instructor in good faith suspects are in whole or in part plagiarized may be subject to submission for textual similarity review to SimCheck or another service for the detection of plagiarism. Such works will be included as source documents in the SimCheck or other plagiarism detection service reference database solely for the purpose of detecting plagiarism of such materials. No student assignments will be submitted to SimCheck or other plagiarism detection service without a student's written consent and permission. If a student does not provide such written consent and permission, the instructor may: (i) require a short reflection paper on research methodology; (ii) require a draft bibliography prior to submission of the assignment; or (iii) require the cover page and first cited page of each reference source to be photocopied and submitted with the assignment.

Note about plagiarism: Plagiarism can refer to not citing content from other publications as well as not citing them appropriately. For example, you cannot copy and paste a sentence from another publication and then provide the citation unless you place that sentence in quotations or italicize it and specify that it is taken directly from the identified citation, etc. However, it's generally best practice to *paraphrase* content from other references rather than using word-for-word exerts in quotations. If you have any questions about citations and/or plagiarism, please do not hesitate to reach out and ask me.

Office of Civil Rights & Title IX Reporting Obligations Regarding Incidents of Sexual Harassment, Sexual Assault, Dating Violence, Domestic Violence, or Stalking (https://civilrights.charlotte.edu)

UNC Charlotte is committed to providing an environment free of all forms of discrimination and sexual harassment, including sexual assault, domestic violence, dating violence, and stalking. If you (or someone you know) has experienced or experiences any of these incidents, know that you are not alone. UNC Charlotte has staff members trained to support you in navigating campus life, accessing health and counseling services, providing academic and housing accommodations, helping with legal protective orders, and more.

Please be aware that many UNC Charlotte employees, including all faculty members, are expected to relay any information or reports of sexual misconduct they receive to the Title IX Coordinator. **This means that if you tell me about a situation involving sexual harassment, sexual assault, dating violence, domestic violence, or stalking, I am expected to report the information to the Title IX Coordinator (**https://cm.maxient.com/reportingform.php?UNCCharlotte&layout_id=125**).** Although I am expected to report the situation, you will still have options about how your case will be handled, including whether or not you wish to pursue a formal complaint. Our goal is to make sure you are aware of the range of options available to you and have access to the resources you need.

If you wish to speak to someone confidentially, you can contact any of the following on-campus resources, who are not required to report the incident to the Title IX Coordinator: (1) University Counseling Center (https://counselingcenter.charlotte.edu, 704-687-0311); or (2) Student Health Center (https://studenthealth.charlotte.edu, 704-687-7400). Additional information about your options is also available at https://civilrights.charlotte.edu under the "Students" tab.

Please also see: Clery Center/Campus SaVE (https://www.clerycenter.org/)

All students are required to abide by the UNC Charlotte Sexual Harassment Policy (https://legal.charlotte.edu/policies/up-502) and the policy on Responsible Use of University Computing and Electronic Communication Resources (https://oneit.charlotte.edu/iso/standard-responsible-use). Sexual harassment, as defined in the UNC Charlotte Sexual Harassment Policy, is prohibited, including when carried out through computers or other electronic communications systems, including course-based chat rooms or message boards.

Course Credit Workload
This 3-credit graduate course requires 3 hours of 'class or direct faculty instruction' (in the case of an asynchronous online course like this, this refers to 3 hours of working through the module materials/slides for any given week) and approximately 6 hours of 'out-of-class' student work each week for approximately 15 weeks. 'Out-of-class' work may include but is not limited to: reading course materials; practicing programming/coding exercises of statistical analyses; completing assignments; etc. Therefore, on average, graduate courses are expected to take about 9 hours per week of your time. Depending on your learning pace, as well as experience and/or comfort with programming and/or analytics/statistics, some students may need more or less time than expected.

Disability Accommodations (Taken directly from UNC Charlotte's Office of Disability Services)
UNC Charlotte is committed to access to education. If you have a disability and need academic accommodations, please send me your accommodation letter as early as possible. You are encouraged to meet with me to discuss the accommodations outlined in your letter. For more information on accommodations, contact the Office of Disability Services at 704-687-0040, disability@uncc.edu, or Fretwell 230 (on campus).
Please also visit their website: https://ds.charlotte.edu

Religious Accommodation
It is the obligation of students to provide faculty with reasonable notice of the dates of religious observances on which they will be absent by submitting a Request for Accommodation for Religious Observance form (https://legal.uncc.edu/sites/legal.charlotte.edu/files/media/UP409-ReligiousAccommodationForStudents.pdf) to their instructor prior to the census date for enrollment for a given semester (http://legal.charlotte.edu/policies/up-409). The census date for each semester (typically the tenth day of instruction) can be found in UNC Charlotte's Academic Calendar (https://registrar.charlotte.edu/printable-calendar).

Diversity, Equity, & Inclusion
UNC Charlotte strives to create an academic climate in which the dignity of all individuals is respected and maintained. Therefore, we celebrate diversity that includes, but is not limited to ability/disability, age, culture, ethnicity, gender, language, race, religion, sexual orientation, and socio-economic status.

The College of Health & Human Services (CHHS) values human diversity in all its richly complex and multi-faceted forms, whether expressed through, but not limited to, race and ethnicity, culture, political and social views, religious and spiritual beliefs, language and geographic characteristics, gender, gender identities and sexual orientations, learning and physical abilities, age, and social or economic classes. It is the intent of CHHS that students from all diverse backgrounds and perspectives be well served by this course, that students' learning needs be addressed both in and out of class, and that the diversity that students bring to this class be viewed as a resource, strength, and benefit. For more information on diversity and inclusion please visit diversity.charlotte.edu.

Names & Pronouns
Many individuals have and/or use preferred names in daily life that are different from their legal name. In this class, we seek to refer to individuals by their preferred names. Pronouns can also be a way to affirm someone's gender identify: pronouns are a public way in which people are referred to in place of their name (e.g., he, she, they, etc.). In this class, you are invited (if you would like) to share your preferred name and/or pronouns, and we seek to refer to individuals using their preferred names and pronouns that they share. Please refer to the University's Office of Identity, Equity, & Engagement (https://identity.charlotte.edu) for more details.

UNC Charlotte's Official Notice of Nondiscrimination (taken directly from the Office of Legal Affairs)
UNC Charlotte seeks to promote a fair, humane and respectful environment for its faculty, staff, students, contractors and visitors. The University prohibits discrimination and harassment on the basis of race, color, religion, age, national origin, physical or mental disability, political affiliation, veteran status, genetic information, sex, sexual orientation, gender expression, or gender identity in its programs and activities, and in its employment and educational decisions.
For more information, please visit: https://legal.charlotte.edu/policies/up-501

Wellness Statement/Counseling Center
Graduate school, and life experiences outside of graduate studies, can be stressful at times. It is common for students to experience challenges that may interfere with academic success such as academic stress, sleep problems, juggling responsibilities, life events, relationship concerns, or feelings of anxiety, hopelessness, or depression. If you or a friend is struggling, we strongly encourage you to seek support. Helpful, effective resources are available on campus at no additional cost. You may find it helpful to chat with someone at the University's Center for Counseling and Psychological Services (CAPS) (https://caps.charlotte.edu), which is free for students. CAPS is staffed with qualified professional counselors who are trained to support and guide students through difficult transitions, experiences, and feelings. Please do not hesitate to contact them any time:

- Phone Number: 704-687-0311 (After-hours crisis support is also available through this phone number.)
- Location: The office is located in the Christine F. Price Center for Counseling & Psychological Services (CAPS) – behind the Student Health Center (9502 Poplar Terrace Drive; corner of Mary Alexander Rd. & Cameron Blvd.)
- Office Hours: Monday - Friday 8 am - 5 pm, with evening hours available by appointment
- For emergencies after hours, you can call Campus Police & Public Safety (https://police.charlotte.edu/; 704-687-2200).

If you are struggling academically with this class, please visit me during virtual office hours or contact me by email at laura.gunn@uncc.edu.

Meet with your academic advisor if you are struggling academically in multiple classes, unsure whether you are making the most of your time at UNC Charlotte, or unsure what academic resources are available at UNC Charlotte.

College of Health & Human Services Laptop Policy
ALL STUDENTS, graduate and undergraduate, taking CHHS courses, are required to possess a laptop with webcam and microphone. Our courses may require a laptop or other compliant device for in-class assignments. Please note that Chromebooks won't satisfy this policy. NinerTech offers compliant models at student discounted pricing that may represent a savings over regular commercial purchase.

Students may avail themselves of loaner equipment such as that provided via Atkins Library (https://library.charlotte.edu/check-out-request/borrow-laptops), but should not rely on that option for all of their computing needs. This requirement extends to non-majors, pre-majors, and postbac students enrolling in any of our CHHS courses and to students enrolling in courses delivered by CHHS faculty under a designation or cross-list not associated with one of our programs.

Prohibition of Recordings (taken directly from the Office of Legal Affairs)
Electronic video, image capture, and/or audio recording is not permitted during class, whether conducted in person or online [including during virtual office hours], unless the student obtains permission from the instructor. If permission is granted, any distribution of the recording is prohibited. Students with specific electronic recording accommodations authorized by the Office of Disability Services do not require instructor permission; however, the instructor must be notified of any such accommodation prior to recording. Any distribution of such recordings is prohibited.

All students are prohibited from copying and sharing old exams, course notes, tests, slides, assignments, or online content on any other website, device, student groups, etc., as this infringes on the professor's rights and is a copyright infringement. Sharing any content without explicit permission of the instructor will result in an Academic Integrity Violation.

Last Date of Attendance
The United States Department of Education requires UNC Charlotte's Office of Financial Aid to determine if a student who receives financial aid and fails to earn a passing grade in a course has actually attended and/or completed the course. Because this is an online course and there will not be any attendance to take for this course, the date I will report as your last date of attendance will be the latest of the following:
- The date you last submitted an assignment;
- The date you last participated online via Canvas (e.g., via discussion/activity); or
- The date you last initiated contact with me to ask a question about the course or course content.

If you earn a U grade, your last date of attendance will be reported to the United States Department of Education. This may require you to pay back any financial aid funds received for this course. For additional information, see Last Date of Attendance FAQs (https://registrar.charlotte.edu/gradingholds/last-date-attendance/last-date-attendance-faqs) on the Registrar's website.

Withdrawal Policy
Students are expected to complete all courses for which they are registered at the close of the add/drop period. If you are concerned about your ability to succeed in this course, it is important to make an appointment to speak with me as soon as

possible. The University policy on withdrawal allows students only 16 credit hours to withdraw from courses. It is important for you to understand the financial and academic consequences that may result from course withdrawal: https://provost.charlotte.edu/policies-procedures/academic-policies-and-procedures/withdrawal-and-cancellation-enrollment-policy

Final Grade Appeal Policy
The university has a policy and procedure for student appeals of final course grades, which can be found at: https://legal.charlotte.edu/policies/up-410.

Additional Available University Resources

University Writing Resources Center
For those of you who may need or wish to seek assistance with improving your writing, I encourage you to visit the University Writing Resources Center (WRC) for free tutoring and assistance (they have both face-to-face and e-visits). To learn more, visit their website: https://writing.charlotte.edu/writing-resources-center.

Atkins Library
The Atkins library also has resources regarding programming/coding and statistics available to guide you throughout this course. To learn more, visit their website: https://library.charlotte.edu.

Safety and Security Information
UNC Charlotte's Department of Safety and Security offers the following safety tips:
- Ensure your cell phone number is in the Banner Self-Serve system (Emergency Text Phone Number box) to receive text message NinerAlerts. NinerAlerts are sent via a variety of methods when there is a threat to campus safety or a change in operating condition.
- For every NinerAlert that is issued, an action directive is also included in the body of the message. Action Directives can include run, hide, fight; seek shelter; or evacuate. Visit emergency.charlotte.edu for more information on what each directive means.
- Download the Livesafe app. This connects you to campus police via phone or text 24/7.
  - 911 dialed from a mobile phone connects to CMPD and can slow down response.
  - Alternatively, you can put the UNC Charlotte Police emergency number in your phone: 704-687-2200.
- Always be aware of your surroundings and know the quickest escape routes: exit doors, windows, etc.
- Safety and Security offers a variety of trainings to students. For more information, visit: https://police.charlotte.edu/crime-prevention-safety
- Remember: Personal pepper spray is allowed on campus. However, guns and knives are not.

Action Directives included in NinerAlerts:

Run-Hide-Fight is the action directive for an active assailant.
- **RUN**: If outside or in a building and it is safe to flee, run and leave the campus if possible.
- **HIDE**: If you are in a building and unsure of where the threat is, find the closest room in which to hide. Close, lock and/or barricade doors if they do not lock. Do not huddle in one location. Remain quiet.
- **FIGHT**: This is a last-resort option. Do not seek the assailant. If you come into direct contact with the individual, use any means necessary to defend yourself.

A **Seek Shelter** directive is normally issued during severe weather or hazardous material releases. If a Seek Shelter is ordered:
- Stay inside if you are indoors.
- If outside, quickly go to the nearest building.
- Once indoors, find a space in the building to shelter. Stay away from windows.
- In a tornado, go to the lowest floor of the building and find an interior room or hallway to shelter in. Stay away from windows.

An **Evacuation** can be for either a single building, area, or the entire campus. Further information and direction will be included in the NinerAlert.

Syllabus Revisions/Changes to Course Plan
The contents of this syllabus are as complete and accurate as possible at this time. However, there may be adjustments as needed (e.g., as a result of unanticipated pandemic-related issues or other illnesses, depending on progress we make toward our course goals and objectives, etc.). I will inform you via Canvas announcements of any changes as they may occur throughout the semester. However, it is your responsibility, as the student, to keep track of announced changes that have been made in order to successfully complete the requirements of the course.