

University of North Carolina at Charlotte
College of Health and Human Services & School of Data Science
Academy of Population Health Innovation
Fall 2024

Course Number and Title: HCIP 6250 Capstone: Problem Solving in Healthcare Analytics

Credits: 3 Grad Credits

Days/Time, Location: Wednesdays 5:30 – 8:15 p.m. in CHHS 133(Online Synchronous)

Faculty Information: Michael Dulin (he/him/himself)

Professor, Public Health Sciences

Affiliate Faculty, School of Data Science

Office Hours: CHHS 341 / Thursdays 3-4 pm and by appointment

Contact information: mdulin3@charlotte.edu

Zoom ID # 810 884 0932

TA Information: Rohit Reddy Ambati (he/him/himself)

Office Hours: Tuesdays and Thursdays 3:00-4:00 pm and by appointment

Contact information: rambati@charlotte.edu

Link: <https://meet.google.com/ccy-uxuk-nrq>

Catalog Description A capstone course with synthesis and application of strategic planning, information technology, and analytic concepts via ‘real world’ consultative projects grounded in health informatics and analytics.

Pre and/or Co-requisites: HCIP 6400 or HADM 6400 or HLTH 6471

Course Objectives: The goals of this course are to ensure students can: (1) address health questions with an appropriate approach; (2) identify, analyze, and curate health data; (3) code and analyze data to answer a given health related question or provide insight; (4) interpret, visualize, and communicate analytic results in a meaningful way; (5) work as a team using project management tools; and (5) prepare to enter the professional workforce.

Instructional Method: Hybrid

Course Overview:

This course serves as the capstone for the Master of Public Health (MPH) in Population Health Analytics and the Master of Science in Health Informatics and Analytics programs. It is designed to demonstrate and enhance the skills students have learned throughout the program to curate, integrate and visualize health data. The course will also prepare students

to enter into/advance within the professional workforce, incorporating the use of LLM AI tools to further enhance data analysis and visualization capabilities.

Each functional area (e.g., informatics, analytics, data interpretation, and reporting) is critical to the population health/healthcare decision processes that these data inform.

Course Conduct:

This capstone class emphasizes team projects as well as to address related professional skills that prepare students to enter into/advance within the health/healthcare professional workforce. Each week during our allotted class time, we will work on and discuss the capstone project and progress within each team.

Student Learning Outcomes:

After successfully completing this course, students should be able to:

- Formulate a health question that can be answered using data;
- Locate and identify relevant datasets for the formulated question;
- Curate and evaluate multiple data streams, including data profiling, imputation, and data integration;
- Conduct meaningful analysis and visualization of the data, utilizing open-source tools (e.g., Python/R), commonly used proprietary tools for visualization (e.g., Tableau, Power BI);
- Leverage LLM AI tools to enhance efficiency and creativity in data analysis, such as generating code snippets, suggesting visualization techniques, and refining data narratives;
- Perform effectively on a team using fundamentals of project management.
- Demonstrate effectiveness in organizing, synthesizing, and articulating the interpretation of an analysis;
- Demonstrate ability to effectively develop a professional CV and LinkedIn profile;
- Show ability to respond to a job announcement and interview for a position.

Required Equipment:

1. Laptop or PC
2. Access to internet with secure connection, virus protected
3. Microsoft Office (all assignments must be turned in as a .doc or .docx, or PDF file) and presentations should be given in PowerPoint

Graduate Grading Scale:

A = 90-100%

B = 80 - 89%

C = 70 - 79%

U = 69% & below

Evaluation Methods: Course Evaluation fall into 4 major domains:

1. Project #1 - Data curation/profiling (35%)
2. Project #2 – Data analysis and visualization (35%)
3. Project Management / Teamwork (20 %)
4. Professional Development / Job Readiness (10%)

Topical/Unit Outline:

First class(Aug 21th Virtual class) : Students will be organized into groups to tackle a collaborative project, where each group will be responsible for selecting and evaluating a project management tool of their choice. Each group should identify a project management tool that best suits their needs and provide a detailed rationale for their selection.

Project 1 (Week 1-7): required to identify and utilize publicly available datasets. The team must then profile, curate, and integrate the data using open-source tools such as Python/R. The plan for data identification and curation should be developed concurrently with data exploration and collection.

- Outcome 1 – Problem Statement: 5%
- Outcome 2 – Approach for Identification/Cleaning/Curation: 5%
- Outcome 3 – Methods & Results: 10%
- Outcome 4 – Oral Presentation (**Oct 9th**): 15%

Project #2 (Week 8 – 16: will analyze and visualize the data collected and curated from project #1 to provide insights.

- Outcome 1 – Exploratory Data Analysis: 10%
- Outcome 2 – Data Visualization: 10%
- Outcome 3 – Oral Presentation (**Dec 4th**): 15%

Project Management / Team Work (20%): All members in each team should contribute equally to the project, and a single team submission should be made on behalf of all individuals in the team for both projects. Please be responsible and respectful of your peers and make sure you contribute to the work distribution equally. At the end of each project assignment, include a list of the contributions made by each team member. Confidential peer and self-evaluations will be submitted via survey including:

- Each team member’s contributions;
- Challenges with the team dynamics and how these were overcome;
- Positive attributes of each team member;
- Your self-evaluation;

Peer (and self) evaluations are due prior to the project presentations, with the mid-term survey contributing 5% and the final presentation contributing 15% to your overall grade.

Please contact me if you perceive inequalities in the workload that each team member is contributing, or if the team dynamics are not functional.

Supplemental Resources

The faculty have identified the following resources as broadly useful to all students:

- **Your Statistical Consultant: Answers to Your Data Analysis Questions**, Second Edition, Rae R. Newton and Kjell E. (Erik) Rudestam, Sage Publications, 2012 (ISBN-13: 978-1412997591)
- Public Health Writing Guide:
<https://populationhealthexchange.org/teph-public-health-writing-guide>
- R Statistical Computing (also contains helpful resources/text recommendations):
<https://www.r-project.org>
- **Nonparametric Statistics for Health Care Research: Statistics for Small Samples and Unusual Distributions**, Second Edition, Marjorie A. Pett, Sage Publications, 2015 (ISBN-13: 978-1452281964)
- **Methods: Toward a Science of Behavior and Experience**, Tenth Edition, William J. Ray, Wadsworth, 2012 (ISBN-13: 978-1111521158)
- Statistics website: <http://onlinestatbook.com>

Professional Development / Job Readiness: During the course you will need to submit a cv and your LinkedIn profile for review. You are encouraged to connect online with your project team members and provide a positive review if appropriate.

Syllabus Subject to Change: * The standards and requirements set forth in this syllabus may be modified at any time by the course instructor. Notice of such changes will be by announcement in class, written or email notice, or by changes to this syllabus posted on the course website at <https://uncc.instructure.com/courses/224416>

UNIVERSITY AND COLLEGE POLICIES

These University policies must be inserted into your syllabi.

University Policies

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 purpose of the Code of Student Responsibility (the Code) is to protect the

campus community and to maintain an environment conducive to learning. University rules for student conduct are discussed in detail. The procedures followed for any Student, Student Organization or Group charged with a violation of the Code, including the right to a hearing before a Hearing Panel or Administrative Hearing Officer, are fully described. The entire document may be found at this Internet address: <https://legal.uncc.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 group 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.uncc.edu/policies/up-407>

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.

AI use:

Syllabus Policy Option 1: Permitting generative AI use in all assignments, with the requirement that students disclose any AI assistance.

Generative AI Permitted in this Course, with Attribution

In this course, students are permitted to use generative artificial intelligence (AI) tools like ChatGPT to support their work. To maintain academic integrity, students must disclose any AI-generated material they use and properly attribute it, including in-text citations, quotations, and references (see, for example, <https://apastyle.apa.org/blog/how-to-cite-chatgpt>). Be aware that students are responsible for any errors or information that is misrepresented or inaccurate (i.e. hallucinations) that generative AI tools produce when submitting work that includes AI-generated material. Students should also include the following statement in their assignments to indicate use of a generative AI tool: “The author(s) acknowledges the use of [generative AI tool Name] in the preparation or completion of this assignment. The [generative AI tool Name] was used in the following way(s) in this assignment: [e.g., brainstorming, grammatical correction, citation, which portion of the assignment].”

Important Note on Data Protection and Privacy: When using generative AI tools, it is important to be aware that the data you supply might be used for training AI models or other purposes. Consequently, there is no guarantee that the information you provide will remain confidential. You should exercise caution and avoid sharing any sensitive or private information when using these tools. Examples of such information include personally identifiable information, protected health information (PHI), financial data, intellectual property, original research, and any other data that might otherwise be legally protected.

Syllabus Policy Option 2: Permitting generative AI use in specific designated assignments, but not all. Students must disclose any AI assistance. Faculty members

should specifically indicate on each assignment whether generative AI is permitted, and the way in which it may be used.

Generative AI Permitted in this Course Only as Designated, with Attribution

In this course, students are permitted to use generative AI tools such as ChatGPT *only for specific assignments, and only as designated by the instructor*. To maintain academic integrity, students must disclose any AI-generated material they use and properly attribute it, including in-text citations, quotations, and references (see, for example, <https://apastyle.apa.org/blog/how-to-cite-chatgpt>). Be aware that students are responsible for any errors or information that is misrepresented or inaccurate (i.e. hallucinations) that generative AI tools produce when submitting work that includes AI-generated material. In addition, use of a generative AI tool that is not specifically authorized by the instructor may constitute a violation of the [Code of Student Academic Integrity](#).

Students should also include the following statement in their assignments to indicate use of a generative AI tool: “The author(s) acknowledges the use of [generative AI tool Name] in the preparation or completion of this assignment. The [generative AI tool Name] was used in the following way(s) in this assignment: [e.g., brainstorming, grammatical correction, citation, which portion of the assignment].”

Important Note on Data Protection and Privacy: When using generative AI tools, it is important to be aware that the data you supply might be used for training AI models or other purposes. Consequently, there is no guarantee that the information you provide will remain confidential. You should exercise caution and avoid sharing any sensitive or private information when using these tools. Examples of such information include personally identifiable information, protected health information, financial data, intellectual property, original research, and any other data that might otherwise be legally protected.

SimCheck:

Suggested Syllabus Policy #1: If you plan to use SimCheck for ALL papers submitted in your class, you should include the following (or your own variation thereof) in your syllabus:

As a condition of taking this course, all required papers may be subject to submission for textual similarity review to [SimCheck](#) [or another plagiarism detection service] for the detection of plagiarism. All submitted papers will be included as source documents in the SimCheck [or another plagiarism detection service] reference database solely for the purpose of detecting plagiarism of such papers. No student papers will be submitted to SimCheck 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 final paper; or (iii) require the cover page and first cited page of each reference source to be photocopied and submitted with the final paper.

Suggested Syllabus Policy #2: If you plan to use a plagiarism detection service other than SimCheck for ALL papers submitted in your class, you should include the following (or your own variation thereof) in your syllabus:

As a condition of taking this course, all required papers may be subject to submission for textual similarity review to a plagiarism detection service for the detection of plagiarism. All submitted papers will be included as source documents in the plagiarism detection service reference database solely for the purpose of detecting plagiarism of such papers. No student papers will be submitted to a 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 final paper; or (iii) require the cover page and first cited page of each reference source to be photocopied and submitted with the final paper.

Suggested Syllabus Policy #3: Alternatively, if you do NOT plan to submit all papers to SimCheck or another plagiarism detection service but plan to submit ONLY papers that you SUSPECT contain plagiarized works, you should include the following (or your own variation thereof) in your syllabus:

As a condition of taking this course, papers 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 papers. No student papers 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 final paper; or (iii) require the cover page and first cited page of each reference source to be photocopied and submitted with the final paper.

[Office of Civil Rights and Title IX Reporting Obligations Regarding Incidents of Sexual Harassment, sexual assault, dating violence, domestic violence, or stalking:](#)

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 civil protective orders, and more.

Please be aware that all UNC Charlotte employees, including 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](#). 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 the following on-campus resources, who are not required to report the incident to the Title IX Coordinator: (1) University Counseling Center (counselingcenter.charlotte.edu, 7-0311); or (2) Student Health Center (studenthealth.charlotte.edu, 7-7400). Additional information about your options is also available at titleix.charlotte.edu under the “Students” tab.

Course Credit Workload:

This 3-credit course requires three hours of classroom or direct faculty instruction and six hours of out-of-class student work each week for approximately 15 weeks, including the final exam period. Out-of-class work may include but is not limited to: required reading, library research, written assignments, and studying for quizzes and exams.

Disability Accommodations:

UNC Charlotte is committed to access to education. If you have a disability and need academic accommodations, please provide a letter of accommodation from Disability Services early in the semester. For more information on accommodations, contact the Office of Disability Services at [704-687-0040](tel:704-687-0040) or visit their office in Fretwell 230.

Non-discrimination Statement:

All students and the instructor are expected to engage with each other respectfully.

Unwelcome conduct directed toward another person based upon that person’s actual or perceived race; color; religion (including belief and non-belief); sex; sexual orientation; gender identity; age; national origin; physical or mental disability; veteran status; genetic information; or for any other reason, may constitute a violation of [University Policy 501, Nondiscrimination](#). Any student suspected of engaging in such conduct will be referred to the [Office of Civil Rights & Title IX](#).

Religious Accommodation:

Students are obligated to provide faculty with reasonable notice of their religious observances and dates of any corresponding absences. Students and faculty should follow the steps indicated in [University Policy 409 Step IV: Procedure](#).

College Policies

Wellness Statement

It is common for college 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.

If you are struggling academically with this class, please visit me during office hours or contact me by email at mdulin3@charlotte.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.

Visit the Counseling and Psychological Services website at <https://caps.charlotte.edu/> for information about the broad range of confidential on-campus mental health services, online health assessments, hours, and additional information.

Call CAPS at (704) 687-0311 if interested in scheduling an appointment with a counselor. After-hours crisis support is also available through this phone number

NOTES:

This syllabus template is a *suggested model for organization*. The order, and content beyond those required, might vary by unit needs.

*****END OF REQUIRED ELEMENTS*****

Recommended policies begin on the following page

RECOMMENDED POLICIES

Best practice content:

Assignments:

Project Submission Guidelines : To ensure a standardized and organized submission process, please adhere to the following guidelines when submitting your project:

1. GitHub Repository Creation:
 - Create a new repository on GitHub dedicated to this course, titled: [Course Name] Project - [Project Title_Team Number].
 - Ensure that the repository is set to public to allow easy access for evaluation.
2. Repository Structure:
 - The repository should include the following:
 - README.md: A detailed README file that provides an overview of the project, instructions on how to run the code, and any other relevant information.
 - Data Files: Include all necessary data files required for the project.
 - Code Files: All scripts and code used for data analysis, processing, or any other task.

- Visualizations: Any graphs, charts, or other visualizations generated as part of the project. (example: "tableau workbooks"/ ".PBIX Files".)
 - Presentation: Upload the presentations used for your project presentation.
 - Report: Include a comprehensive report detailing the objectives, methods, results, and conclusions of your project.
3. Adding Contributors:
 - Add the Teaching Assistant (TA) as a contributor to your repository. This will allow them to review your submission and provide feedback if necessary.
 4. Submission:
 - Once your repository is ready, submit the GitHub repository link through the Canvas.
Ensure that all files are uploaded and properly organized before submission.
Late submissions or incomplete repositories may result in a grade penalty.

Late Assignment Policy: Any late assignment will incur a 5-point deduction for each day it is late unless there is a documented and excused extenuating circumstance. Please contact me if you or your team is/are unable to meet a due date and we can discuss a reasonable extension.

Bibliography (or reading list) in referencing format consistent with the discipline (e.g. APA or MLS). Emphasis is placed more on recent publications and editions. Classic books and articles contribute regardless of date).

Recommended classroom policies for consideration:

Campus Emergencies: UNC Charlotte and your instructor have a primary responsibility for ensuring student safety. Students are notified of impending or imminent threats via the [NinerAlert](#) system. In the event of an imminent emergency, please follow all university and/or instructor guidelines.

Disruptions to university operations are communicated via the [NinerNotice](#) system. All students are automatically enrolled in NinerNotice to receive important texts and other UNC Charlotte communications.

Classroom Expectations: This syllabus contains the policies and expectations that I have established for Problem Solving in Healthcare Analytics. Please read the entire syllabus carefully before continuing in this course. These policies and expectations are intended to create a productive learning atmosphere for all students. Unless you are prepared to abide by these policies and expectations, you risk losing the opportunity to participate further in the course.

Classroom Conduct: I encourage your active participation in class discussions. Each of us may have strongly differing opinions on the various topics of class discussions. The conflict of ideas is encouraged and welcome. The orderly questioning of the ideas of others,

including mine, is similarly welcome. However, I will exercise my responsibility to manage the discussions so that ideas and arguments can proceed in an orderly fashion. You should expect that if your conduct during class discussions seriously disrupts the atmosphere of mutual respect I expect in this class, you will not be permitted to participate further.

Course Content Recording or Sharing Is Prohibited: Electronic video and/or audio recording is not permitted during class 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, lecture 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.

Instructor's absences or tardiness: If I am late in arriving to class, you must wait a full 20 minutes after the start of class before you may leave without being counted absent, or you must follow any written instructions I may give you about my anticipated tardiness.

Preferred Gender Pronoun: This course affirms people of all gender expressions and gender identities. If you prefer to be called a different name than what is indicated on the class roster, please let me know. Feel free to correct me on your preferred gender pronoun. If you have any questions or concerns, please do not hesitate to contact me.

Course Policies:

Class Attendance Policy: Class attendance will be required for project presentations – Oct 9th and Dec 4th. I will provide information prior to calling on access to the virtual classroom on Zoom.

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 I do not take regular attendance 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 participated in an online discussion or activity;
- The date you last submitted an assignment/project/test/tutorial/quiz; or
- The date you last initiated contact with me to ask a question about the course or course content.

If you earn an F or 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](#) on the Registrar's website.)

Class Absence(s): The authority to excuse a student's class absence(s) and to grant a student an academic accommodation (turn in a late assignment(s), provide extra time on an assignment, reschedule an exam(s) etc.) sits with the individual instructor. Students are encouraged to work directly with their instructors regarding their absence(s). Note: The Dean of Students Office can assist faculty members in the verification a student's class absence(s) for documented situation related to medical, psychological, personal crisis, or military absences.

Cell Phone and Computer Use in the Classroom (this will vary by faculty preference): The use of cell phones, smart phones, or other mobile communication devices is disruptive, and is therefore prohibited during class. Except in emergencies, those using such devices must leave the classroom for the remainder of the class period. Students are permitted to use computers during class for note-taking and other class-related work only. Those using computers during class for work not related to that class must leave the classroom for the remainder of the class period.

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](#).

OTHER RELEVANT BUT NOT CHHS REQUIRED ELEMENTS

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). Since assignments will also contain grading on writing/grammar/spelling, then I encourage you to visit the WRC if you have any questions about your writing prior to submission deadlines. To learn more, visit their website: <https://writing.uncc.edu/writing-resources-center>.

Atkins Library Research Help Desk

The Atkins library also has resources available to guide you when conducting research throughout your capstone project. To learn more, visit their website: <https://library.uncc.edu/research-write/get-research-help/research-help-desk>.

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.uncc.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
- Location: The office is located in the Christine F. Price Center for Counseling & Psychological Services (CAPS) – behind the Student Health Center (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 (704-687-2200).

If you are struggling academically with this class, please visit me during office hours or contact me by email at mdulin3@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.

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.uncc.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.uncc.edu/crime-prevention-safety>
- Remember: Personal pepper spray is allowed on campus. However, guns and knives are not.