JOMC 570
Data Driven Journalism
Fall 2017

MW – 9:30-10:45 a.m.   Ryan Thornburg

Carroll Hall 11

office hours: By appointment. Typically, 2-5pm MTW

Office Phone: 919-537-3681

COURSE DESCRIPTION:

In this skills-based course students learn how to acquire, clean, analyze and present data in a journalistic setting.

Your decision to take this course indicates that you are interested in learning the skills and concepts of data-driven reporting. My expectation is that you already have demonstrated clear news judgment and precise, brief storytelling either in or out of a classroom.

The class starts from the assumption that you've never or rarely used even a basic spreadsheet to aid either your reporting or storytelling. That's where the semester will begin. Along the road to data literacy we will also go over some basic statistics and basic data visualization concepts.

OBJECTIVES:

Students who successfully complete this course will be able to acquire, organize, analyze and present data to a general news audience. Students will learn how to use the tools of data-driven journalism as a means to developing and testing hypotheses that lead to transparent and reproducible data-driven stories.

Through the study of quantitative reasoning and methods, students in this course will acquire and reinforce the ability to use analytic and quantitative ideas as they are applied in the context of professional journalistic reporting. In today's world of fast-paced advances in the use of data, the importance of such skills cannot be overstated.

This course focus especially on the ways that quantitative reasoning can be applied to the kinds of data that professional news reporters use in a variety of media presentation formats.

Students in this course will learn how to collect and interpret quantitative data, apply mathematical analysis in a news reporting context and use numerical reasoning to organize and present a story to general news audiences.

COURSE SCHEDULE:
Please see the course's Sakai website for detailed assignment instructions and deadlines.

COURSE MATERIALS:
Your laptop is the tool of your craft, and its care and maintenance reflect upon you and your readiness to work in the professional settings for which this course prepares you. Just like a guitar player wouldn't show up to rehearsal with a broken string, you also need to ensure your computer is in good working order each and every class. Laptops – like guitar strings – will break. Having a backup plan demonstrates maturity and professional preparedness.

Your laptop should always have the most recent version of your operating system, with all downloads and updates installed. It should have 16 GB of RAM and at least 25 GB of free space on your hard drive. If it does not, or if you are not sure, please contact ITS for assistance.

You will need a student membership to IRE, which is available at https://www.ire.org/membersonly/join/register and costs $25. This will give you access to dozens of tip sheets and resources we will use in class as well as software that would otherwise cost hundreds of dollars.

You will need the following software installed on your laptop. You are responsible for keeping the software up-to-date by downloading and installing all patches or updates as they are released:
- Firefox browser
- Chrome browser
- Chrome extension "Scraper" (https://chrome.google.com/webstore/detail/scraper/mbigbapnjcgaffohmbkdlecaccepngjd/related?hl=en)
- The most recent version of Excel (available from http://software.sites.unc.edu/how-to-order/)
- SQLiteBrowser (http://sqlitebrowser.org/)
- OpenRefine (http://openrefine.org/)
- Tableau Desktop (https://www.tableau.com/academic/students)
- Sublime Text (https://www.sublimetext.com/2)

You may also find the following software applications useful during the semester:
- Firefox plugin: Xpath Checker https://code.google.com/archive/p/xpathchecker/
- Chrome extension Xpath Helper
- "R" & "R Studio": (https://www.rstudio.com/products/rstudio/)
- Outwit Hub Light (http://outwit.com/products/hub/)
- Carto (https://www.ire.org/blog/ire-news/2015/03/06/free-upgraded-cartodb-accounts-ire-members/)
- QGIS (and required GDAL framework): http://www.kyngchaos.com/software/qgis

You do not need to purchase any books for this course.

COURSE GRADES:

- Homework: 25% -- Throughout the course of the semester we will have reading assignments as well as hands-on practice doing data analysis. Many of the assignments will be started in class and students will complete them on their own at home. Homework must be handed in on time, without exception. Late assignments can receive no more than a C grade. Assignments more than one week late will receive no more than 50% of the total points. Please see Sakai for details on each assignment.
- Attendance: 25% -- You will receive one attendance point for every class period you attend. Late arrivals and early departures may receive partial or no credit. Many of the homework assignments will be begun in class with the instructor's guidance.
- Story proposals: 25% -- Twice during the semester (September 25 and October 30) you will present a proposal for a small data-driven reporting project. Both proposals will include a significant amount of pre-reporting and fairly robust initial data analysis, first using spreadsheet tools and the second using a database.
- Final Story proposal: 25% -- This will be a robust proposal for a data-driven reporting project. It should include significant pre-recording and data visualizations where appropriate to help explain the story.

WHAT GRADES MEAN:

A – Mastery of course content at the highest level of attainment that can reasonably be expected of students at a given stage of development. The A grade states clearly that the student has shown such outstanding promise in the aspect of the discipline under study that he or she may be strongly encouraged to continue.

B – Strong performance demonstrating a high level of attainment for a student at a given stage of development. The B grade states that the student has shown solid promise in the aspect of the discipline under study.

C – A totally acceptable performance demonstrating an adequate level of attainment for a student at a given stage of development. The C grade states that, while not yet showing unusual promise, the student may continue to study in the discipline with reasonable hope of intellectual development.

D – A marginal performance in the required exercises demonstrating a minimal passing level of attainment for a student at a given stage of development. The D grade states that the student has given no evidence of prospective growth in the discipline.

F – For whatever reason, an unacceptable performance. The F grade indicates that the student's performance in the required exercises has revealed almost no understanding of the course content. A grade of F should warrant an advisor's questioning whether the student may suitably register for further study in the discipline before remedial work in undertaken.

Grade	Minimum %
A+	100
A	95
A-	90
B+	87
B	83
B-	80
C+	77
C	73
C-	70
D+	67
D	60

STUDENT HONOR:

The University of North Carolina at Chapel Hill has had a student-led honor system for over 100 years. Academic integrity is at the heart of Carolina and we all are responsible for upholding the ideals of honor and integrity. The student-led Honor System is responsible for adjudicating any suspected violations of the Honor Code and all suspected instances of academic dishonesty will be reported to the honor system.

All academic work in this course, including homework, quizzes, and exams, is to be your own work, unless otherwise specifically provided. It is your responsibility if you have any doubt to confirm whether or not collaboration is permitted. If the work is truly your own, you will be able to explain and demonstrate to my satisfaction how you did it.

Do not represent someone else's words, thoughts, or ideas as your own without attribution in connection with submission of academic work, whether graded or otherwise.

Further information about the student Honor Code is available at
http://studentconduct.unc.edu/honor-system

DIVERSITY:

The University's policy on Prohibiting Harassment and Discrimination is outlined in the 2011-2012 Undergraduate Bulletin *http://www.unc.edu/ugradbulletin/.* UNC is committed to providing an inclusive and welcoming environment for all members of our community and does not discriminate in offering access to its educational programs and activities on the basis of age, gender, race, color, national origin, religion, creed, disability, veteran's status, sexual orientation, gender identity, or gender expression.

SPECIAL ACCOMODATIONS:
If you require special accommodations to attend or participate in this course, please let the instructor know as soon as possible. If you need information about disabilities visit the Department of Disability Services website at *http://disabilityservices.unc.edu/*

ACCREDITATION:
The School of Journalism and Mass Communication's accrediting body outlines a number of values you should be aware of and competencies you should be able to demonstrate by the time you graduate from our program. Learn more about them here:
http://www2.ku.edu/~acejmc/PROGRAM/PRINCIPLES.SHTML#vals&comps

No single course could possibly give you all of these values and competencies; but collectively, our classes are designed to build your abilities in each of these areas. In this class, we will address a number of the values and competencies, with special emphasis on the last six bullet dots under "Professional values and competencies" in the link above.