

<p style="text-align: center;">JOMC 570 Data Driven Journalism Fall 2018</p>

MW – 9:30-10:45 a.m.
Carroll Hall 11
office hours: 11-12:30 MW, CA 215
Office Phone: 919-537-3681

Ryan Thornburg

PRE-REQUISITES: Experience reporting news in a professional or classroom setting, including clear news judgment and ability to communicate with clarity and brevity. Familiarity with broadcast writing guidelines. Strong work ethic.

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. 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 focuses 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.

ATTENDANCE POLICY:

Students may miss two class sessions for any reason or no reason. After that, each class missed will result in a deduction of 5 points from the final course grade. Missing an assignment deadline is equivalent to missing class

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.

You do not need to purchase any books for this course. I will assign readings from the Web as well as Lynda.com (freely available to UNC students at <https://software.sites.unc.edu/lynda/>)

You will need a \$25 IRE student membership (<https://www.ire.org/membersonly/join/register>). 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:

- Excel 2016 (available free to students from <https://software.sites.unc.edu/software/microsoft-products/>)
- Join our classroom space on data.world by going to <http://bit.ly/data-world-mejo-570-f18>
- Tableau Desktop (<https://www.tableau.com/academic/students>)
- Carto
(<https://www.ire.org/blog/ire-news/2015/03/06/free-upgraded-cartodb-accounts-ire-members/>)
- Python (instructions at <http://www.firstpythonnotebook.org/prerequisites/python.html>)

Other useful software

- SQLiteBrowser (<http://sqlitebrowser.org/>)
- Chrome extension “Scraper”
(<https://chrome.google.com/webstore/detail/scraper/mbigbapnjcgaffohmbkdlecaccepngjd/related?hl=en>)
- OpenRefine (<http://openrefine.org/>)
- Sublime Text (<https://www.sublimetext.com/2>)
- Firefox plugin: Xpath Checker <https://code.google.com/archive/p/xpathchecker/>
- Chrome extension Xpath Helper
- PostgreSQL: <https://www.postgresql.org/download/>
- Postico (Mac only): <https://eggerapps.at/postico/> or PgAdmin (Mac & Windows): <https://www.pgadmin.org/>
- “R” & “R Studio”: (<https://www.rstudio.com/products/rstudio/>)
- Outwit Hub Light (<http://outwit.com/products/hub/>)

- QGIS (and required GDAL framework): <http://www.kyngchaos.com/software/qgis>

Books You May Find Useful

- The Investigative Reporters Handbook, by Brant Houston and IRE
- The Art of Access, by David Cuillier and Charles N. Davis
- PracticalSQL by Anthony DeBarros
- Various public records reference books by Michael Sankey, available in UNC Libraries

DETERMINATION OF GRADE:

Throughout the semester, students will earn points for completing various assignments. At the end of the semester, points will be summed and grades will be assigned.

Undergraduate Grading Scale

>250 = A
 220-249 = B
 195-219 = C
 165-194 = D
 < 164 = F

Additional Expectations for Graduate Students

Graduate students in the class will work separately from undergraduate students. The graduate students will be required to complete the “Enterprise” story assignment OR three of explanatory/news stories that are described below, and will have additional standards for quality of presentation and depth and breadth of reporting.

Graduate Student Grading Scale

H = >250
 P = 195-249
 L = 165-194

Maximum Points for Assignments

- [Homework assignments](#) – 15 throughout the semester. 6 points each. Students who receive fewer than 6 points on an assignment may re-do the assignment within a week for a maximum of 5 points. (See Sakai for details and due dates).
- [Data profile of government agency](#) – 35 points
- [“How I got the story” interview/critique assignment](#) – 25 points
- [Explanatory/news story](#) of 750-2,000 words (or equivalent) – 25 points
- [Acquiring, cleaning and publishing a public dataset](#) – 10 points each (max 20 points)
- [Clean/acquire/analyze/visualize for another reporter](#) – 80 points
- [Story Pitch](#) – 100 points
- [Enterprise story](#) of at least 2,000 words (or equivalent) – 150 points

Details on specific deadlines and grading rubrics for each of these assignments will be available

on the course Sakai site.

Please see “Undergraduate Grade Definitions” and “Graduate Grade Definitions” at <https://registrar.unc.edu/academic-services/grades/explanation-of-grading-system/> for a better understanding of what letter grades mean at UNC-Chapel Hill.

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.

If you have any questions about your responsibility or your instructor’s responsibility as a faculty member under the Honor Code, please see the course instructor or Senior Associate Dean C. A. Tuggle, or you may speak with a representative of the Student Attorney Office or the Office of the Dean of Students.

Further information about the student Honor Code is available at <http://honor.unc.edu>

Seeking Help:

If you need individual assistance, it’s your responsibility to meet with the instructor. If you are serious about wanting to improve your performance in the course, the time to seek help is as soon as you are aware of the problem – whether the problem is difficulty with course material, a disability, or an illness.

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 Accommodations:

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.

WEEKLY CLASS SCHEDULE:

Week 1: Introduction to data journalism

Weeks 2 - 4: Developing story ideas and introduction to Excel

Weeks 5 & 6: Visual analysis with Tableau

Weeks 7 – 12: Using SQL to find stories in databases

Week 13: Introduction to spatial queries with Carto

Week 14 - 16: Introduction to Python for data reporting

[More details online](#)

FINAL EXAM:

Saturday, Dec. 8, 8-11 a.m. – Debriefing and turning in final projects replaces a final exam.