Syllabus: Data Driven Journalism (JOMC 890)

Spring 2016
11 a.m. to 12:30 p.m. TR
CA 283
Office Hours: 9:30-10:45 a.m. TR

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Graduate Research Consultant: Iain Carmichael

Welcome
The economics of digital publishing has opened a floodgate of raw data, and journalism is just one of many fields that are being rapidly transformed by this tsunami of data. In law, medicine, business, politics, and ecology, people are using data to understand the social and natural worlds. They are also using data to tell stories.

To retain their position as brokers of trust and hubs of community conversation, reporters must understand how the people they cover are using data, and how journalists can use data to improve our shared understand of an increasingly complex world.

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. Finally, you'll write a story that is driven by data.

The Goal of This Course
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.

What You Will Learn
The first few weeks of class will be dedicated to an introduction to basic statistics and numerical and mathematical literacy, as well as a look at professional data-driven journalism projects.

The bulk of the course will be spent on practical skills exercises using tools such as spreadsheets, SQL databases, Google Fusion Tables, Tableau, QGIS and R.

The culmination of the course will be an explanatory or accountability news story and news data visualization.

Required Readings
The best way to learn about the changing journalism environment is to keep a close eye on professionals working in the industry. The bulk of our reading will be contemporary articles and research about data driven reporting.

Books and articles you will need for this class:

- *IRE Tipsheets* available to IRE Student Members. Register at https://www.ire.org/membersonly/join/register for $25.
- Numbers in the Newsroom, by Sarah Cohen.
- Other readings and tutorials available on this site and Sakai.

Research Meets Journalism

In this course you will learn how social science research techniques can be used in deadline-sensitive news reporting. You will be working with a Graduate Research Consultant, Iain Carmichael, who will assist you with some advanced statistical techniques you might want to use in your final project. Iain is a Ph.D. student in the Department of Statistics and Operational Research.

The GRC Program is sponsored by the Office for Undergraduate Research, and you may be able to use this research-exposure course to meet a requirement of the Carolina Research Scholars Program. I encourage you to visit the OUR website to learn about how you might engage in data-driven research, scholarship, media creation and news reporting while you are at Carolina.

Grades
Homework Exercises – 50%
Some exercises will be done in class as a group, while others will be done on your own outside of class. These will also include reading assignments and quizzes.

You may miss one homework deadline for any reason, as long as you meet with me and make up your work within one week. After that, each day an assignment is late will result in one full letter reduction of your grade for that assignment.

Unless you make prior arrangements with me, I will not be available to help you catch up on instruction you miss due to absence in a class.

Graduate Students: In addition to the regular homework assignments, graduate students in the course will be contributing short weekly posts to a blog about North Carolina demographics, politics and government. Their work will also be graded with a graduate-level rubric requiring more sophisticated research and presentation techniques.

Midterm:– 25%

Due: Monday, March 21, 8 a.m. (But feel free to hand it in before Spring Break if you'd like.)

For the midterm project you will be working with WRAL data reporter Tyler Dukes to report a story about money that state and local agencies in North Carolina pay to companies that promise to create jobs.

More Details

Final Project:– 25%

Due: Friday, April 29, 3 p.m. (Story proposal memo due Friday, April 1, 5 p.m.)

The final project will give you a chance to take advantage of the pivotal role North Carolina is going to play in national elections this year. Early in the semester, each student will be given election related data — such as voter registration, election returns and census data — from a few North Carolina counties. You will be able to choose any tools and techniques we cover in class to find and describe a 1,500-word story, along with two visualizations — one map and one other visualization.

More Details

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.

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