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# SYLLABUS

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## SYLLABUS

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## COURSE OVERVIEW

Students will learn how to find and tell news stories with data using the R statistical programming language. This class is designed for students with experience and interest in professional news reporting.

## COURSE GOALS

By the end of this course, you will be able to:

- Load, manipulate and analyze public data using the R statistical programming language and RStudio IDE software
- Visualize data using static and interactive maps and charts created with R packages
- Import data into R from PDFs and HTML web pages
- Subset, group and reshape data as part of an analysis and visualization process
- Manipulate and analyze text in R to clean and organize data
- Use GitHub to collaborate with classmates, track changes on a project and share analytical code
- Create and publish interactive notebooks and HTML pages using R Markdown
- Use R to perform, understand and explain introductory statistical tests for correlation in a social science setting
- Conceptualize and complete a data journalism reporting project according to professional standards

## YOUR INSTRUCTOR

**Instructor:** [Ryan Thornburg, ryan.thornburg@unc.edu](mailto:ryan.thornburg@unc.edu)

**Department:** *Hussman School of Journalism and Media*

## REQUIRED MATERIALS

### TEXTBOOKS

Explanation of required textbook and materials, if applicable.

The following texts are required

- [Student Membership to Investigative Reporters and Editors](#). \$25 (Upon graduation, student members may renew their membership at the student price, for up to 3 years.)
- *Practical R for Mass Communication and Journalism*, by Sharon Machlis, ISBN 978-1138386358 (I think renting the Kindle version will be the most cost effective.)

- Other readings specific to each lesson are listed on the Lesson pages. Any readings not found in the required textbooks are available either through the Course Reserves tab or through links to free online versions.

## LIBRARY SERVICES AND COURSE RESERVES

Students enrolled in this course have access to the UNC Library System. Visit [Distance Education Library Services](#) to access a wide array of online services and resources including Course Reserves, online databases, online journals, online books, and live help with research and library access. **Most online resources require you to log in with your Onyen and password.** If you have any trouble finding the resource that you need or logging in to a resource, you can contact the library through the contact information at Distance Education Library Services. You can chat live about your problem or send an email to request assistance.

## TECHNOLOGY

- [R and RStudio](#)
- [GitHub Student Developer Pack](#)
- [Cometdocs](#)
- [OpenRefine](#)

In addition, there will be some more advanced tools we will use (mostly to set up the Associated Press's template that it uses for data journalism projects). I will help you with these, but have also linked to some installation instructions here:

- [Python3](#) (used to install the AP data journalism project templates)
- Pip (which you should get when you install Python3)
- [Git](#) (in order to use GitHub)
- [SSH key on your computer](#) (optional?)
- [datakit-project](#)

## ASSIGNMENTS AND EXAMS

The following components of this course will contribute to your grade. You should plan to spend about 4-5 hours a week working on your data reporting project and 4-5 hours a week working on Labs & Quizzes. You will work mostly at your own pace, so initiative and time management will be important. Some work is asynchronous and some

initiative and time management will be imperative. Some weeks you may spend more time on the project and other weeks on the lab. My job will be to coach and advise you along the way, as well as to help hold you accountable for sustained and regular progress.

## DATA REPORTING PROJECT: 80 PERCENT OF FINAL GRADE

You will work on your project individually or in a group starting in the first week of the semester. It will be due the last day of classes. (As of the start of the first day of classes, the University has not published a final exam schedule.)

Throughout the semester, we will have three check-ins that will be part of the grade for the project.

- **Week 5:** Data analysis story memo + notebook(s)
- **Week 8:** Interviews and observations memo
- **Week 12:** Draft, including written story, visualizations, markdown notebooks of analysis, and organized GitHub repository
- **Week 15:** Final

## LABS & QUIZZES: 20 PERCENT OF FINAL GRADE

The semester will be divided into about 12 Labs, and you may have one or several lessons each week. These lessons are designed to help you acquire more advanced data reporting skills. They are arranged so that they will be most useful to you as you hit various stages of your project. I've provided deadlines that are, for the most part, guidance rather than hard deadlines. In some cases, you will need to complete certain labs in order to hit the benchmarks for the project.

Your grade for this portion of the class will be based solely on the percentage of total labs you complete. For example, if there are 12 labs, the grade scale would be:

- 12-13 Lab complete = A
- 10-11 = B
- 8-9 = C
- 6-7 = D
- <6 = F

There won't be partial credit for Lab. They're either done or they're not.

## GRADING SCALE

Percentages will be converted to letter grades according to the following scale.

Letter Grade	Percentage	Meaning
A	94–100%	Excellent: Far exceeds standard
A-	90–93%	
B+	87–89%	Good: Exceeds standard
B	83–86%	
B-	80–82%	
C+	77–79%	Fair: Meets standard
C	73–76%	
C-	70–72%	
D+	67–69%	Poor: Shows growth but falls below standard
D	60–66%	
F	0–59%	Failing: Deficient

## COURSE POLICIES

### ATTENDANCE

Much of the work for this class will be done asynchronously to accommodate remote learning across time zones. Synchronous class sessions will be announced in advance.

learning across time zones. Synchronous class sessions will be announced in advance and held via Zoom. Recordings of the Zoom meetings will be recorded and made available for students.

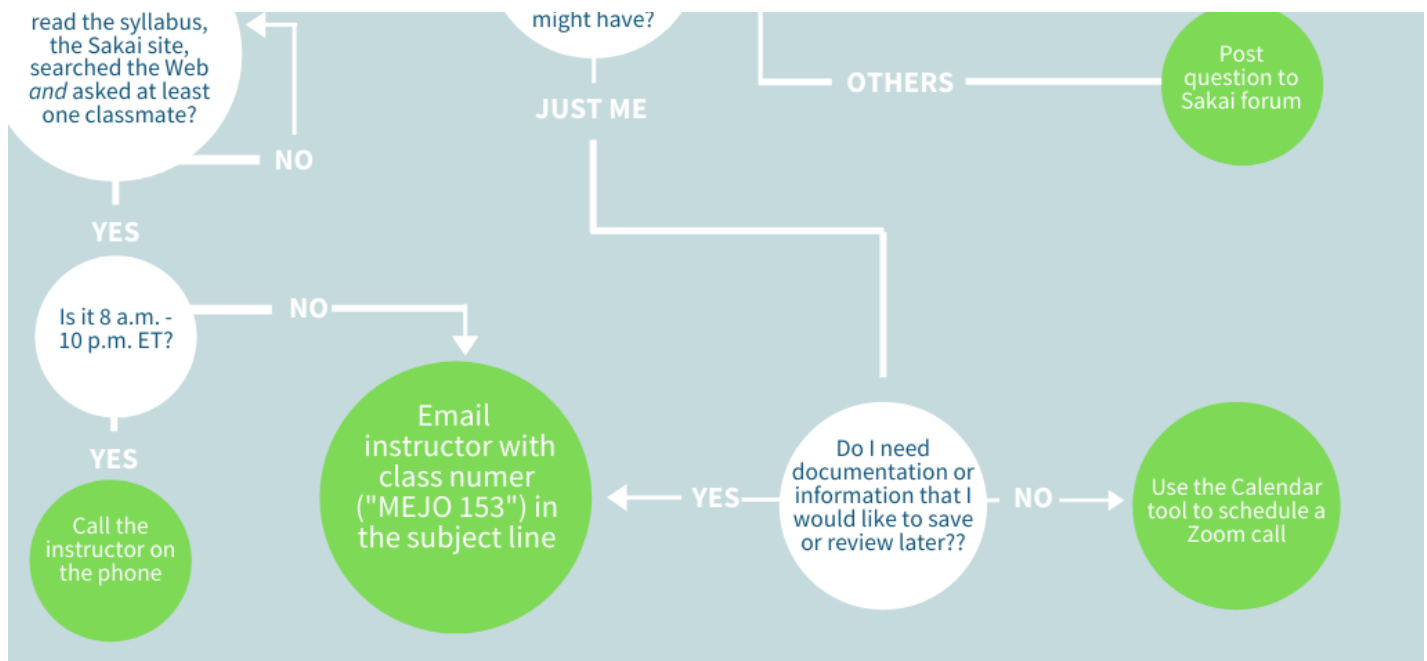
## Community Standards for Online Video Sessions

- Students are expected to be online and ready to begin class prior to the start of each session.
- Students should begin sessions with video on if possible. They may turn video off when not speaking or participating in small group discussions.
- When speaking or participating in small group discussions, students will have their video on unless bandwidth limitations do not allow.
- Students should keep their audio muted when not speaking.
- The instructor will record all sessions and make them available online for enrolled students to view later. At the end of the semester, the instructor will delete any online and offline copies of these videos to which he has access.
- The audio and visual content of online class sessions are intended for use only by enrolled students and only during the session for which they are enrolled. Students will not do anything that would make audio or visual content from class sessions available to anyone not enrolled in the class. At the end of the course, students are expected to delete any copies of audio or visual content from class sessions that they have made.

## COMMUNICATION

The asynchronous nature of this course is intended to open up more of my time to work with students individually. Much of this communication will occur in the comments and edits I make to your written assignments, but I will also be available to talk in person or via video chat.





- **Office Phone:** (919) 567-3681 (It will forward to my mobile if I'm not in my office.)
- **Email:** [ryan.thornburg@unc.edu](mailto:ryan.thornburg@unc.edu)
- **Sakai forum** and/or **Teams**
- **Zoom office hour meetings scheduler:** [15-minute check-in](#) | [30-minute meeting](#) | [Group Office Hours](#) (reserved for groups of 2-5)

## LATE SUBMISSIONS

Please see Assignments section and Lab pages for deadlines. Project check-ins that aren't delivered on time will have their grade reduced 10% for each week they're late. The deadline for the final project is hard. Project's that aren't turned in by the last day of class will have their grades reduced by 30%.

## 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.

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.



## **Academic Policies and Services**

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