ABOUT THE COURSE

Course Purpose
To enable you to work professionally as a data journalist who acquires, cleans and analyzes data using spreadsheets and SQL databases.

Course Description
This course focuses on the numbers side of data journalism. You will learn how to find data to tell stories and how to find stories in data. No experience in spreadsheets or databases presumed. Pre-requisite: Journalism 3101 (reporting) or permission of instructor.

Course Outcomes
By the end of the semester, you should be able to:
• Evaluate the reliability of data sources and methods.
• Discover stories in data by detecting meaningful patterns.
• Find data to answer audience questions and test assertions by those in power.
• Acquire data by scraping websites and PDFs without programming.
• Clean messy data so it can be categorized and analyzed accurately.
• Use Excel for journalistic purposes.
• Write SQL queries to sort and filter data, and to join databases.

Required: IRE Membership
For just $25, the student rate, join Investigative Reporters and Editors (IRE) for one year and get free software required for the course. Plus, you will get access to story tip sheets, data sets, and advice. IRE is host for NICAR (National Institute for Computer-Assisted Reporting), whose annual conference attracts 1,000+ data journalists.

Once you join IRE, send an email requesting your free license for Cometdocs, which we will use in class to unlock data from PDFs.
Not Required, But Highly Recommended


This is an excellent reference text by a master practitioner and data teacher. Because you won’t be tested on the book and can pass the course without it, the book is not required. But buy it anyway. You’ll be glad you did.

ASSIGNMENTS AND GRADING

Tentative Schedule

<table>
<thead>
<tr>
<th>Class</th>
<th>Date</th>
<th>Subject</th>
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<tbody>
<tr>
<td>1</td>
<td>August 25</td>
<td>Finding, importing and evaluating data</td>
</tr>
<tr>
<td>2</td>
<td>September 1</td>
<td>Excel 1: Formulas, functions, sorts, filters</td>
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<tr>
<td>3</td>
<td>September 8</td>
<td>Excel 2: Pivot tables</td>
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<tr>
<td>4</td>
<td>September 15</td>
<td>Excel 3: String functions</td>
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<tr>
<td>5</td>
<td>September 22</td>
<td>Excel 4: More practice using Excel</td>
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<tr>
<td>6</td>
<td>September 29</td>
<td>Story planning</td>
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<tr>
<td>7</td>
<td>October 6</td>
<td>Cleaning: Using Excel and Open Refine to fix inconsistencies in data</td>
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<tr>
<td>8</td>
<td>October 13</td>
<td>Exam 1</td>
</tr>
<tr>
<td>9</td>
<td>October 20</td>
<td>Scraping: Parsing data from PDFs and websites without programming</td>
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<tr>
<td>10</td>
<td>October 27</td>
<td>SQL 1: Basics of databases and simple queries</td>
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<tr>
<td>11</td>
<td>November 3</td>
<td>SQL 2: Aggregate and intermediate queries</td>
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<tr>
<td>12</td>
<td>November 10</td>
<td>SQL 3: Joining separate data sets</td>
</tr>
<tr>
<td>13</td>
<td>November 17</td>
<td>SQL 4: More practice using SQL</td>
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<tr>
<td></td>
<td>November 24</td>
<td>(no class; Thanksgiving)</td>
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<tr>
<td>14</td>
<td>December 1</td>
<td>Exam 2</td>
</tr>
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Grade Allocation

Homework (low score drops) .................................................. 40%
Exam 1 ...................................................................................... 15%
Exam 2 ...................................................................................... 15%
Deadline story published ......................................................... 10%
Project story published ............................................................ 20%

Homework

Weekly assignments will reinforce skills learned in class. Late submissions will lose half the possible points. The low homework score from the semester will be dropped.

Exams

Each exam will be given in class. You can use your notes. A makeup exam is possible only if (a) the absence is covered by UF policy, (b) you contact me at least 30 minutes before class begins (phone preferred), and (c) you promptly provide written documentation.
Published Stories
Because data journalists must be able to both turn around stories quickly and work on longer projects, the course requires students publish or broadcast one of each.

Note the requirement is *publish or broadcast*. Just turning in a story won’t count for any course credit.

Most students publish their work on one of the college’s news outlets (WUFT TV, radio and website) or the Alligator. Equally suitable are non-partisan, professional news organizations such as the Gainesville Sun, WCJB-TV, WGFL-TV, or the equivalent.

As with all journalism, stories must be accurate. A factual error is a 50-point deduction.

Otherwise, grading for these stories is based on three criteria:

1. **Data.** The stories must be based on data analysis you generate and cite at least two human sources.
2. **Engagement.** If the story is unlikely to be shared via social media, it’s not worth doing. Skip the boring stuff. Write about stuff people care about.
3. **Clarity.** Clear, precise and concise writing matters. If the syntax is garbled or hard to comprehend, the audience will stop trying and move on.

The difference between the deadline and project stories is:

- **Deadline story:** About 250 words, from a simple data source and often done easily in Excel. Examples include: how much FL universities spend on lawyers, how UF athletic spending compares, which state agency pays the lowest salaries, and where Florida campaign donors give their money when giving out of state.

- **Project story:** About 500 words, involving more data complexity either from created data or joined data, perhaps with SQL. Examples include: determining whether the UF football coach deserved to be fired by quantifying recruiting classes, determining whether college campuses are safe, and evaluating local voting trends over 20 years.

Both stories must be *published or broadcast* by the last day of classes: Wednesday, Dec. 7.

However:

In order to meet the publication/broadcast deadline, you will need to have your stories done and submitted to me about a month before – by roughly Nov. 1. I edit these stories strenuously as part of your learning experience.

And submitting stories by then means you need to discuss your idea with me at least a month ahead – by roughly Oct. 1. Stories take time to refine, research and write.

Bottom line: Have ideas approved for both stories by no later than Oct. 1. Earlier is even better.
Grading Scale

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<tr>
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<th>Percent</th>
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<tbody>
<tr>
<td>B+</td>
<td>89-87%</td>
<td>C+</td>
<td>79-77%</td>
<td>D+</td>
</tr>
<tr>
<td>A</td>
<td>100-93%</td>
<td>B</td>
<td>86-83%</td>
<td>C</td>
</tr>
<tr>
<td>A-</td>
<td>92-90%</td>
<td>B-</td>
<td>82-80%</td>
<td>C-</td>
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Scores are rounded to the nearest whole point: 89.4 rounds down to 89 (B+) while 89.5 rounds up to 90 (A-). The UF grading policy details how GPA is computed.

MORE IMPORTANT DETAILS

Academic Integrity
UF students pledge to abide by an honor code that prohibits academic dishonesty such as fabrication, plagiarism and cheating. You have an affirmative obligation to understand what constitutes academic dishonesty. You also must report to appropriate personnel any condition that facilitates academic misconduct. If you have any questions or concerns, please contact me.

When I discover cheating, my default policy is to fail all involved for the entire course and report the details to the Dean of Students Office.

Course Evaluations
Students are expected to provide feedback on the quality of instruction in this course by completing online evaluations. You will be notified by email when the evaluations are open, typically in the last two or three weeks of the semester. Summary results are available to you and the public.

Students with Disabilities
Students with disabilities requesting accommodations should first register with the Disability Resource Center (352-392-8565) by providing appropriate documentation. Once registered, students will receive an accommodation letter, which must be presented to me when requesting accommodation. Such requests should be made in the first two weeks of the semester.

Health and Wellness

- The UF Counseling and Wellness Center is a terrific, free resource for any student who could use help managing stress or coping with life. The center, at 3190 Radio Road on campus, is open for appointments and emergency walk-ins from 8 a.m. to 5 p.m. Monday through Friday. To make an appointment or receive after-hours assistance, call 352-392-1575.
- If you or a fellow student is in distress, contact umatter@ufl.edu or 352 392-1575 so that a U Matter, We Care team member can assist.
- Sexual Assault Recovery Services is at the Student Health Care Center: 392-1161.
- The UF Police can be reached at 392-1111 or, in an emergency, by dialing 911.
Academic Resources

- E-learning technical support: 352-392-4357 (select option 2) or e-mail to Learningsupport@ufl.edu or reach the website.
- For career advice and planning, or even help selecting a major or minor, contact the Career Resource Center in the Reitz Union, 392-1601.
- For help in finding resources, ask a UF librarian through Library Support.
- General study skills and tutoring available from the Teaching Center, Broward Hall, 392-2010 or 392-6420.
- Have a complaint? See the UF Complaints Policy for links and directions.