This class is built to train you on the skills to both analyze data and create data visualizations. The goal is to tell visual stories with — and about — data. However, to take the class you do not need to know (or like) anything about math, statistics or data analysis.

When you’re done you’ll have a portfolio of interactive charts, graphs and maps and understand the data that underly them.

Specific topics will include: infographics, social media, investigative reporting, public records, JavaScript, basic statistics, spreadsheets and “newsroom math.” Absolutely no prior background in math, statistics, coding or data analysis is needed.

You will learn to
• design and write infographics
• identify stories using data analysis
• write about data analysis
• write code in JavaScript
• achieve understanding of:
  • basic statistics
  • database analysis
  • visualization principles

Textbook

Online resources: http://bit.ly/2mv4X5e

Department info
School of Journalism
Director: Dr. David Ryfe
david-ryfe@uiowa.edu
Office: 305 AJB
Phone (319) 335-3486

Grading

<table>
<thead>
<tr>
<th>Labs</th>
<th>50%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Final Project</td>
<td>25%</td>
</tr>
<tr>
<td>Attendance/quizzes</td>
<td>20%</td>
</tr>
<tr>
<td>Public records request</td>
<td>5%</td>
</tr>
</tbody>
</table>

Attendance and quizzes
You are expected to attend and be prepared to participate in every class session.
To kill two birds with one stone, each class will begin with a 1-question quiz based on the reading, assigned online videos or material from recent classes.

You get full credit for a correct answer.

Missing a class or arriving after it is given late or leaving early means your quiz and attendance will be recorded as a 0 unless your absence is cleared in advance by the professor.

Unprofessional behavior such as disrespecting your colleagues and disrupting class will also result in that class being recorded as a 0.

Absences: you have three no-questions-asked “PTO” days. Just email the professor before class and you are automatically excused.

Other than your PTO days, you will can be given excused absences for school-related travel, unavoidable Daily Iowan reporting assignments, hospitalization, religious holidays, weather or other absences that are automatically approved under university or college policies. You must notify the professor of these in advance via email.

No retroactive excused absences will be given.

**Labs**

While this class covers a lot of material on data and coding, it is a journalism class. And journalism is something you do. For that reason, the largest part of your grade comes from six labs in which you will analyze and present data using clearly documented code.

There will be time in class to work on the labs, but you should expect to spend significant time outside of class as well.

Rubrics will be provided in class. The lowest grade of the six will be dropped.

**Final project**

Your final project will be one of the following based on a substantive data analysis:

- a 1,000-or-more-word story based on substantive data analysis and multiple small, simple visualizations
- an extensive multipanel, interactive interactive dashboard for exploration of a large dataset

**Grading**

This class is graded on a +/- basis without A+. Grades are rounded to the nearest 0.1 percent by ICON. For journalism majors, this class must be passed with a C- or better in order to continue in the major.

<table>
<thead>
<tr>
<th>Grade</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>94% - 100%</td>
</tr>
<tr>
<td>A-</td>
<td>90% - 93.9%</td>
</tr>
<tr>
<td>B+</td>
<td>87% - 89.9%</td>
</tr>
<tr>
<td>B</td>
<td>84% - 86.9%</td>
</tr>
<tr>
<td>B-</td>
<td>80% - 83.9%</td>
</tr>
<tr>
<td>C+</td>
<td>77% - 79.9%</td>
</tr>
<tr>
<td>C</td>
<td>74% - 76.9%</td>
</tr>
<tr>
<td>C-</td>
<td>70% - 73.9%</td>
</tr>
<tr>
<td>D+</td>
<td>67% - 69.9%</td>
</tr>
<tr>
<td>D</td>
<td>64% - 66.9%</td>
</tr>
<tr>
<td>D-</td>
<td>60% - 63.9%</td>
</tr>
<tr>
<td>F</td>
<td>less than 60%</td>
</tr>
</tbody>
</table>
• a 14” x 23” (or 23” x 14”) print infographic with multiple elements (probably best only for those who have already taken a graphic design course or worked as designers at the Daily Iowan)

• another journalism project based on coding and data, e.g. an Alexa skill with the approval of the instructor

(Students taking the class for graduate credit also will turn in a “second final project” by the end of finals.)

Public records request
In class during the second week you’ll craft and send a public records request based on a list of databases identified by IowaWatch, a nonprofit news organization based in Iowa City. You’ll be responsible for following it up over the course of the semester in consultation with the professor.

Deadlines
In journalism, deadlines count. A lot. So any work that is turned in at all late will be marked down 10% of the available points. No work will be accepted more than 24 hours late. Extensions may be given if circumstances warrant it, but the farther ahead you ask the more likely I am to grant it. Extensions will not be given retroactively.

Extra credit
Journalism is a participatory activity, so those who take the initiative to get involved outside of class can earn a small amount of extra credit in recognition of their initiative through active participation in student journalism groups, work on campus-based media or attendance at specific journalism-related events.

Details will be announced in class. Typically, participation will net 0.5 to 1.0 points depending on the time commitment involved.

The approved student groups are the Online News Association, ED on Campus, the National Association of Black Journalists and Public Relations Student Society of America. Approved campus-based media organizations are The Daily Iowan, DITV, KRUI, Fools Magazine and IowaWatch.

Tentative lecture and assignment schedule

<table>
<thead>
<tr>
<th>Week</th>
<th>Dates</th>
<th>Topics</th>
<th>Textbook</th>
</tr>
</thead>
<tbody>
<tr>
<td>Week 1</td>
<td>Jan. 15</td>
<td>Course overview</td>
<td>Chapter 1</td>
</tr>
<tr>
<td></td>
<td>Jan. 17</td>
<td>Intro to coding for journalists</td>
<td></td>
</tr>
<tr>
<td>Week 2</td>
<td>Jan. 22</td>
<td>Open data, open records</td>
<td>Chapter 2</td>
</tr>
<tr>
<td></td>
<td>Jan. 24</td>
<td>Basic HTML/CSS/JS</td>
<td></td>
</tr>
<tr>
<td>Week 3</td>
<td>Jan. 29-Jan.31</td>
<td>Spreadsheets and summary stats</td>
<td>Chapter 4</td>
</tr>
<tr>
<td></td>
<td>Lab #1 due</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Spring 2018 - JMC 3640
<table>
<thead>
<tr>
<th>Week</th>
<th>Dates</th>
<th>Topics</th>
<th>Textbook</th>
</tr>
</thead>
<tbody>
<tr>
<td>Week 4</td>
<td>Feb. 5/7</td>
<td>Visualization</td>
<td>Chapter 8</td>
</tr>
<tr>
<td>Week 5</td>
<td>Feb. 12/14</td>
<td>Databases and complex data</td>
<td>Chapter 5</td>
</tr>
<tr>
<td></td>
<td>Lab #2 due</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Week 6</td>
<td>Feb. 19/21</td>
<td>Mapping the news</td>
<td>Chapters 6 - 7</td>
</tr>
<tr>
<td>Week 7</td>
<td>Feb. 26/Feb. 28</td>
<td>Build your own data</td>
<td>Chapter 4</td>
</tr>
<tr>
<td></td>
<td>Lab #3 due</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Week 8</td>
<td>March 5/7</td>
<td>Scraping</td>
<td>Chapter 9</td>
</tr>
<tr>
<td>Week 9</td>
<td>March 19/21</td>
<td>Data cleaning</td>
<td>Appendix A</td>
</tr>
<tr>
<td></td>
<td>Lab #4 due</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Week 10</td>
<td>March 26/28</td>
<td>Advanced HTML etc.</td>
<td>Chapter 10</td>
</tr>
<tr>
<td>Week 11</td>
<td>April 2/4</td>
<td>Writing the “data story”</td>
<td>Chapter 11</td>
</tr>
<tr>
<td></td>
<td>Lab #5 due</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Week 12</td>
<td>April 9/11</td>
<td>Campaign finance</td>
<td></td>
</tr>
<tr>
<td>Week 13</td>
<td>April 16/18</td>
<td>Crime</td>
<td>Understanding Crime and Justice Statistics Ch. 1-2</td>
</tr>
<tr>
<td></td>
<td>Lab #6 due</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Week 14</td>
<td>April 23/25</td>
<td>Work session for final projects</td>
<td></td>
</tr>
<tr>
<td></td>
<td>April 27 Final project due</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Week 15</td>
<td>April 31/May 2</td>
<td>Presentations</td>
<td></td>
</tr>
<tr>
<td>Finals</td>
<td>May 11 @ 5 p.m.</td>
<td>Grad student project due</td>
<td></td>
</tr>
</tbody>
</table>

Tentative reading and viewing schedule

**Week 1** (Jan. 15)
- *The Data Journalist* Ch. 1

**Week 2** (Jan. 22)
- *The Data Journalist* Ch. 2

**Week 3** (Jan. 29)
- *The Data Journalist* Ch. 4

**Week 4** (Feb. 5)
- *The Data Journalist* Ch. 8

**Week 5** (Feb. 12)
- *The Data Journalist* Ch. 5

**Week 6** (Feb. 19)
- *The Data Journalist* Ch. 6 - 7

**Week 7** (Feb. 26)
- *The Data Journalist* Ch. 4

**Week 8** (March 5)
- *The Data Journalist* Ch. 9

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Week 9 (March 19)
• The Data Journalist Appendix A

Week 10 (March 26)
• The Data Journalist Ch. 10

Week 11 (April 2)
• The Data Journalist Ch. 11

Week 12 (April 9)
• Video: Covering Campaign Finance
  http://bit.ly/2r4NWo6

Week 13 (April 16)
• Understanding Crime and Justice Statistics Ch. 1 - 2 (PDF on ICON)

Week 14 (April 23)
• TBD

Current news stories will be regularly assigned and discussed in class.

Resources
There are copies of our textbook and other course materials at the SJMC Resource Center, Adler Journalism Building room E350. https://clas.uiowa.edu/sjmc/facilities/resource-center

Students may find the Speaking Center very useful, especially for the presentation. https://speakingcenter.uiowa.edu

The Writing Center (https://writingcenter.uiowa.edu) and the Tutor Iowa site (https://tutor.uiowa.edu) can also be valuable for students seeking extra help.

For help writing in your journalism classes, you can also get help from the Writing Assistance program at the SJMC Resource Center E350 Adler. https://clas.uiowa.edu/sjmc/facilities/resource-center#guidelines

CLAS Teaching Policies & Resources

Administrative Home
The College of Liberal Arts and Sciences is the administrative home of this course and governs matters such as the add/drop deadlines, the second-grade-only option, and other related issues. Different colleges may have different policies. Questions may be addressed to 120 Schaeffer Hall, or see the CLAS Academic Policies Handbook at https://clas.uiowa.edu/students/handbook.

Electronic Communication
University policy specifies that students are responsible for all official correspondences sent to their University of Iowa e-mail address (@uiowa.edu). Faculty and students should use this account for correspondences (Operations Manual, III.15.2).
Accommodations for Disabilities

The University of Iowa is committed to providing an educational experience that is accessible to all students. A student may request academic accommodations for a disability (which includes but is not limited to mental health, attention, learning, vision, and physical or health-related conditions). A student seeking academic accommodations should first register with Student Disability Services and then meet with the course instructor privately in the instructor's office to make particular arrangements. Reasonable accommodations are established through an interactive process between the student, instructor, and SDS. See https://sds.studentlife.uiowa.edu/ for information.

Nondiscrimination in the Classroom

The University of Iowa is committed to making the classroom a respectful and inclusive space for all people irrespective of their gender, sexual, racial, religious or other identities. Toward this goal, students are invited to optionally share their preferred names and pronouns with their instructors and classmates. The University of Iowa prohibits discrimination and harassment against individuals on the basis of race, class, gender, sexual orientation, national origin, and other identity categories set forth in the University’s Human Rights policy. For more information, contact the Office of Equal Opportunity and Diversity, diversity@uiowa.edu, or visit diversity.uiowa.edu.

Academic Honesty

All CLAS students or students taking classes offered by CLAS have, in essence, agreed to the College's Code of Academic Honesty: "I pledge to do my own academic work and to excel to the best of my abilities, upholding the IOWA Challenge. I promise not to lie about my academic work, to cheat, or to steal the words or ideas of others; nor will I help fellow students to violate the Code of Academic Honesty." Any student committing academic misconduct is reported to the College and placed on disciplinary probation or may be suspended or expelled (CLAS Academic Policies Handbook).

CLAS Final Examination Policies

The final examination schedule for each class is announced by the Registrar generally by the fifth week of classes. Final exams are offered only during the official final examination period. No exams of any kind are allowed during the last week of classes. All students should plan on being at the UI through the final examination period. Once the Registrar has announced the date, time, and location of each final exam, the complete schedule will be published on the Registrar's web site and will be shared with instructors and students. It is the student's responsibility to know the date, time, and place of a final exam.
Making a Suggestion or a Complaint

Students with a suggestion or complaint should first visit with the instructor (and the course supervisor), and then with the departmental DEO. Complaints must be made within six months of the incident (CLAS Academic Policies Handbook).

Understanding Sexual Harassment

Sexual harassment subverts the mission of the University and threatens the well-being of students, faculty, and staff. All members of the UI community have a responsibility to uphold this mission and to contribute to a safe environment that enhances learning. Incidents of sexual harassment should be reported immediately. See the UI Office of the Sexual Misconduct Response Coordinator for assistance, definitions, and the full University policy.

Reacting Safely to Severe Weather

In severe weather, class members should seek appropriate shelter immediately, leaving the classroom if necessary. The class will continue if possible when the event is over. For more information on Hawk Alert and the siren warning system, visit the Department of Public Safety website.

School of Journalism and Mass Communication Learning Goals

The School of Journalism and Mass Communication is committed to your academic and professional success. In line with this commitment, we have identified particular learning outcomes that every student should obtain by the time they earn their degree. You can find more information about these learning outcomes here: https://clas.uiowa.edu/sjmc/undergraduate-programs/sjmc-assessment-plan.

We regularly assess the curriculum to determine whether students are achieving these outcomes. This course contributes to these learning outcomes by reinforcing elements of the storytelling, media literacy and multiculturalism goals. Achieving these outcomes means students will:

• demonstrate the ability to gather factual story elements, and to evaluate and express them in logical, narrative forms for multiple media and audiences. (Storytelling Learning Objective No. 1)

• display the ability to access and analyze data, report facts accurately, research and edit information responsibly and in a manner commensurate with professional standards. (Storytelling Learning Objective No. 2)
• Students will demonstrate the ability to apply above concepts in a manner that is sensitive to audiences across all media. (Storytelling Learning Objective No. 3)

• learn how to create and disseminate media messages in various forms. (Media Literacy Learning Objective Number 3)

• demonstrate an ability to produce media that serve the needs and interests of diverse communities and reflect their voices and experiences. (Multiculturalism Learning Objective Number 1)
The Iowa Dozen
The mission of our School is to educate journalism and mass communication professionals, scholars and faculty. Through professional and creative research activities, they enhance a continually growing and evolving understanding of the social and cultural roles, responsibilities, and contexts for communicators in a democratic society, as well as in diverse global contexts. To accomplish that mission:

We learn to …
• Write correctly, clearly and well.
• Conduct research and gather information responsibly.
• Edit and evaluate carefully.
• Use media technologies thoughtfully.
• Apply statistical concepts accurately.

We value …
• Free speech and First Amendment principles for all individuals and groups.
• A diverse global community.
• Creativity and independence.
• Truth, accuracy and fairness.

We explore …
• Theories and concepts.
• The history, structure and economy of media institutions
• The role of media in shaping cultures.