

# DATA JOURNALISM AND RESEARCH TECHNIQUES

**Course Code & No. - (CRN):** JOUR 447 / 10459  
**Course Title (Credits):** Data Journalism & Research Techniques  
**Term & Year:** Spring 2016

**Instructor:** Tanya Canino  
**Phone(s):** 530-581-1020  
**Email:** [tcanino@sierranevada.edu](mailto:tcanino@sierranevada.edu)  
**Office & Hours:** Prim 334 By appointment

**Class Meeting Time:** M/W 10-11:15 a.m.  
**Location:** PRIM 216  
**Prerequisites:** JOUR 240

**Course Description** This course introduces journalism students to reporting and telling stories with data, which is widely available and increasingly used for reporting. The sheer scale and range of digital information available to journalists makes this a subject that all journalism students should become familiar with. This is largely a skills course with a heavy hands-on component. By successfully completing this course, you will be able to identify, obtain, evaluate, clean, analyze and visualize data for a story. You will be expected to think like a journalist by evaluating data critically and applying what you learn to news stories and information graphics. You'll learn how to use spreadsheets, database managers, text editors, data-cleaning programs and visualization tools.

**Expectations:** Students will be active class participants, showing respect to all members of the class. Students will be engaged in the subject, showing curiosity and inquiry.

**Student Outcomes:** Upon successful completion of this course, a student will:

- Explain how and why data can form the foundation of a compelling, fact-driven story.
- Demonstrate where to obtain data, how to clean it and how to “interview” it.
- Produce basic visualizations using such tools as Google Fusion, Google maps, and Datawrapper.
- Use Excel for performing basic data analysis, including common formulas, pivot tables and data importing.
- Procure data and other information through public records requests.
- Integrate data journalism principles into all of your news-gathering and story-telling efforts.

## Methods of Assessing Student Outcomes

Student outcomes will be assessed using the following:

1. In class exercises
2. Homework assignments
3. Public Records Request
4. Quizzes on readings
5. Discussion & Participation
6. Midterm
7. Data Diary
8. Final Data Story Project

## Instructional Strategies

This class will utilize a hands-on approach to learn how to find and use data for reporting.

## Required Texts and Materials

1. [The Data Journalism Handbook](#), by Jonathan Gray, Liliana Bouregu, and Lucy Chambers, free online
2. Computer Assisted Reporting by Brant Houston. You can order it here: <http://store.ire.org/products/pre-order-computer-assisted-reporting-a-practical-guide-4th-edition>. Use coupon code, IREmember2016, to receive \$10 off the price.
3. NICAR courses Excel Module You can order it here: [NICAR Excel Module](#) It is \$20.
4. Laptop with Microsoft Excel
5. Links will be provided for additional course readings throughout the semester
6. As part of your course fee, you will be have membership in the [Investigative Reporters & Editors](#) members site.

## Attendance - Mandatory

Absences are only excused for school activities or written proof of illness. If absent, work on that day is still due. **With every unexcused absence, 25 points will be deducted from your grade. If you have more than 3 unexcused absences, you will drop a full letter grade.**

**The SNC Email System:** The SNC email system is the official communication vehicle among students, faculty members and administrative staff and is designed to protect the confidentiality of student information as required by the Family Educational Rights and Privacy Act of 1974 Act (FERPA). Students should check their college email accounts daily during the school year. Students have a right to forward their SNC e-mail to another e-mail account (for example, @hotmail or @gmail). However, confidentiality of

student information protected by FERPA cannot be guaranteed for SNC e-mail forwarded to an outside vendor. Having email redirected does not absolve a student from the responsibilities associated with official communication sent to his or her SNC email account.

### Grading Policy

In class exercises (10/100)  
 Homework assignments (10/100)  
 Quizzes on readings (5/50)  
 Discussion & Participation (50)  
 Data Diary (50)  
 Public Records Request (50)  
 Final story project (100)

500-450	A
449-400	B
399-350	C
349-300	D
300-0	F

**Prim Library Resources:** Using the library's resources effectively (not just Internet resources) contributes to developing each of SNC's core themes by exposing students to high quality academic resources, diverse opinions, new ideas, and a future that includes building on a liberal arts education. In this course, you will be expected to utilize the library's resources (either on-site or remotely) when appropriate for story research. Prim Library Resources include, but are not limited to:

1. Electronic databases (for peer-reviewed research articles, reviews, newspaper and magazine articles)
2. Hardcopy periodicals. Full-text articles from many more periodicals are available through the electronic databases.
3. Hardcopy texts
4. Lib Guides: <http://Libguides.sierranevada.edu> These web pages contain instructions about how to use resources available at Prim Library, how to evaluate the appropriateness of information from the Internet for a research paper, how to cite sources, and other topics related to finding and using information.
5. Film resources

**Sanctions for Cheating and/or Plagiarism: The Honor Code:** The faculty of SNC believes students must be held to high standards of integrity in all aspects of college life in order to promote the educational mission of the College and to encourage respect for the rights of others. Each student brings to the SNC community unique skills, talents, values and experiences which, when expressed within the community, contribute to the quality of the educational environment and the growth and development of the individual. Students share with members of the faculty, administration and staff the responsibility for creating and maintaining an environment conducive to learning and personal development, where actions are guided by mutual respect, integrity, responsibility and trust. The faculty and students alike must make diligent efforts to ensure high standards are upheld by their colleagues and peers as well as themselves. Therefore faculty and students accept responsibility for maintaining these standards at Sierra Nevada College and are obligated to comply with its regulations and procedures, which they are expected to read and understand.

**Consequences of Violating the Student Honor Code:** SNC students and faculty share the responsibility for maintaining an environment of academic honesty. Thus, all are responsible for knowing and abiding by the SNC Faculty/Student Honor Code published in the current SNC Catalog. Faculty are responsible for presenting the Honor Code and the consequences of violating it to students at the start of their classes AND for reporting all incidences of academic dishonesty to the Provost. Students are responsible for knowing what constitutes CHEATING, PLAGIARISM and FABRICATION and for refraining from these and other forms of academic dishonesty. Violations of the Honor Code become part of a student's academic record.

**1<sup>st</sup> Offense:** Student receives a zero for assignment/exam and counseling with faculty on the honor code, consequences for violating the honor code, and the value of academic honesty in learning.

**2<sup>nd</sup> Offense:** Student fails course and receives counseling with faculty on the honor code, consequences for violating the honor code, and the value of academic honesty in learning.

**3<sup>rd</sup> Offense:** Student is expelled.

**ADA Accommodations:** In accordance with the Americans with Disabilities Act and Section 504 of the Rehabilitation Act of 1973, students with a documented disability are eligible for support services and accommodations. If a student wishes to request an accommodation, please contact the Director of Academic Support Services, Henry Conover, at (775) 831-1314 x7534, [hconover@sierranevada.edu](mailto:hconover@sierranevada.edu) or go to the OASIS offices on the third floor of Prim Library within the first week of the semester.

**The College Mission Statement:** Sierra Nevada College graduates will be educated to be scholars of and contributors to a sustainable world. Sierra Nevada College combines the liberal arts and professional preparedness through an interdisciplinary curriculum that emphasizes entrepreneurial thinking and environmental, social, economic and educational sustainability.

**The College Core Themes:** Liberal Arts, Professional Preparedness, Entrepreneurial Thinking, Sustainability

**Tentative Course Schedule:** Note- This schedule provides a general plan for this course. Alterations may be necessary and students will be informed when changes in assignments are made. Students are responsible for the material covered and announcements made during all classes.

Date	Class Plan	Assignment Due
1/20 Wednesday	Class introduction What is data journalism?	

2	1/25 Monday	<p>Class discussion: <i>Is there a meaningful difference between computer-assisted reporting and data journalism? What are the key elements in a data story? How should you approach a data journalism story? How can you structure information to tell a story?</i></p> <p>SNC Board of Trustees spreadsheet</p>	<p>Read Introduction chapter of <a href="#">Data Journalism Handbook</a></p> <p>Read Ch. 1 of Computer Assisted Reporting</p> <p>Prepare for class discussion (see class plan)</p>
3	1/27 Wednesday	<p>Share your data journalism examples</p> <p>Data as a Source</p>	<p>Find three news stories that used computer-assisted reporting to analyze government databases and won Pulitzer Prizes. Find explanations on how those stories were done. Use <a href="#">Investigative Reporter and Editors</a> website or the Pulitzer Prize website, <a href="#">Pulitzer.org</a></p>
4	2/1 Monday	<p>Finding Data Online</p> <p>Creating a Data Diary</p>	<p>Read Ch. 2, pp. 19-28 of Computer-Assisted Reporting and “Getting Data” chapter of Data Journalism Handbook</p>
5	2/3 Wednesday	<p>Share your data sites</p> <p>Brainstorm ideas for potential data stories</p>	<p>Find 3 international websites, 3 federal government websites &amp; 3 state websites that have data. Write up in your data diary.</p>
6	2/8 Monday	<p>Public Records &amp; FOIA</p> <p>Public Records Request Assignment</p>	<p>Read Ch. 7 of Computer-Assisted Reporting</p> <p><b>Readings:</b></p> <ol style="list-style-type: none"> <li>1. “A Primer on Nevada’s Public Records Law”: <a href="http://www.aclunv.org/nevada-public-records">http://www.aclunv.org/nevada-public-records</a></li> <li>2. Reporters Committee for Freedom of the Press intro to the FOIA law: <a href="http://www.rcfp.org/federal-open-government-guide/introduction">http://www.rcfp.org/federal-open-government-guide/introduction</a> (Read the intro and be familiar with the other resources presented on this page.)</li> <li>3. Scan and bookmark this page on Nevada’s Open Meeting law: <a href="http://www.rcfp.org/rcfp/orders/docs/ogg/NV.pdf">http://www.rcfp.org/rcfp/orders/docs/ogg/NV.pdf</a></li> <li>4. Tom Meagher’s list of docs every journalist should know: <a href="http://www.tommeagher.com/blog/2010/10/documents-every-reporter-needs.html">http://www.tommeagher.com/blog/2010/10/documents-every-reporter-needs.html</a></li> </ol> <p><b>Extra credit:</b> Look up California Open Meeting and Open Records laws.</p>
7	2/10 Wednesday	<p>Data at a private university – Guest Speaker Annamarie Jones</p>	
	2/15 Monday	<p>President’s Day Holiday</p> <p>No class</p>	
8	2/17 Wednesday	<p>Introduction to Excel- NICAR Course Pack in-class exercise 1</p>	<p>Read “Understanding Data” in the Data Journalism Handbook</p>
9	2/22 Monday	<p>Rates &amp; Ratios: NICAR Course Pack in-class exercise 4 &amp; 5</p>	<p>NICAR Course Pack – Exercise 2 &amp; 3 due</p>
10	2/24 Wednesday	<p>Filtering and Pivot Tables: NICAR Course Pack in-class exercise 7 &amp; 8</p>	<p>NICAR Course Pack – Exercise 6 due</p>
11	2/29 Monday	<p>Importing</p> <p>Different File Types</p>	<p>NICAR Course Pack – Exercise 9 due</p> <p>Read Ch. 2, pp.29-45, Computer Assisted Reporting</p>

12	3/2 Wednesday	Excel Review Class exercises from Computer Assisted Reporting, chapter 3	Read Ch. 3 Computer Assisted Reporting– we will be going over exercises in class
13	3/7 Monday	Excel Review Class exercises from Computer Assisted Reporting, chapter 4	Read Ch. 4 Computer Assisted Reporting– we will be going over exercises in class
14	3/9 Wednesday	Midterm  Public Records Presentation	FBI Crime Query – p. 95, Q 1-4 assignment due Public Records Assignment Due
	3/14-18	Spring Break No class / No Homework!	
15	3/21 Monday	Database Managers, part 1 In class exercise	Read Chapter 5 of Computer-Assisted Reporting
16	3/23 Wednesday	Database Managers, part 2 In class exercise	Read Chapter 6 of Computer-Assisted Reporting
17	3/28 Monday	Fact Checking the Data	Assignment due: Campaign Finance exercise, Q 1-5 on p. 139  Read Ch. 9, Computer Assisted Reporting  Reading: <a href="#">A Guide to Bullet proof your data</a>
18	3/30 Wednesday	Data that doesn't work	Readings to be assigned
19	4/4 Monday	Writing & visualizing your data story  Storyboard for your data story – final project	Read Chapter 10 of Computer-Assisted Reporting  Reading: <a href="#">12 Tips to Getting Started with Data Journalism</a> Reading: <a href="#">How to be a Data Journalist</a>
20	4/6 Wednesday	No class due to Tanya out of town	
21	4/11 Monday	Visualizing Data: Different ways data can be encoded visually and their strengths and weaknesses	Read “Delivering Data” in Data Journalism Handbook
22	4/13 Wednesday	Different chart types and when to use them Why these choices work – how our brains process visual information	
23	4/18 Monday	Good practices in information design: use of color, effective annotation, minimizing chart junk	Datawrapper Assignment due
25	4/20 Wednesday	Field Trip to Nevada Appeal...and more	
26	4/25 Monday	Display and interview data with Tableau Public	
24	4/27 Wednesday	Google Fusion Tables	Tableau Public assignment due
25	5/2 Monday	Visualizing data for your final project	Google Fusion Tables assignment due
	5/? TBA	Final: Final story project posted on website, class presentation on how you reported the story	