



COURSE SYLLABUS

Instructor Information

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Office location: Main Hall, First Floor (in the Fler Center)

Office hours: Wednesdays from 3-4 pm and by appointment

Course Information

Course name: Data Storytelling for Social Impact

Course number: ENGL 221

Course section: Section A

Meeting days/times: Wednesdays & Fridays from 1:30 – 2:50 in Main Hall Room 206

Credits: 3 credits

Course Purpose:

In this course, students will learn how to create data visualizations and craft stories about data for varied audiences. While data storytelling is a literacy that tends to be associated with improving business outcomes, it can be equally valuable for exploring deep, humanistic questions in fields such as English, Art, History, and Communications. This course engages students in learning how to craft a data story that can have a real impact on the local community. Students will apply their data storytelling skills toward data provided by a local non-profit, crafting a narrative that will allow the non-profit to share its mission or impact on its website, social media site, in donor packets, or on brochures. Students will learn how to use Tableau to design data visualizations for their data stories.

This course counts towards the Humanities (HM) General Education requirement and the Service Learning (SL) General Education requirement.

Course Materials:

Required textbook:

Dykes, Brent. *Effective Data Storytelling: How to Drive Change with Data, Narrative, and Visuals*. Wiley, 2019.

Technology requirements:

I strongly recommend that you bring a laptop to each class; however, if you do not have access to a laptop, please speak with me and I will help you determine an alternative—don't let that keep you from taking the course. Together, we will download the Tableau software, which you will be able to use this semester for **free**. I will provide you with that information in class.

Student Learning Outcomes:

By the end of this course, students will be able to

1. Explain the difference between data visualizations and data stories
2. Explain the components of an effective data story
3. Critically evaluate the effectiveness of data stories in a variety of contexts
4. Compose data visualizations in Tableau
5. Create basic interactive dashboards in Tableau
6. Create a data story for a particular audience
7. Apply concepts learned in class to real problems in the community



*Image source: Brent Dykes, CC BY-SA 2.5
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A Note on Service Learning:

This class is a project-based service learning course. Service learning is a pedagogical approach that asks students to apply knowledge gained in a course to a real community need, typically through volunteer work. In this class, students will work on a project for a local nonprofit—creating data stories to help our community partner achieve its mission.

Reflection is a key component of service-learning courses because writing reflections helps you connect what you are learning in class to the work you are doing for a community partner. As such, you will see reflections factor into your graded work in this class.

Community Partner - Our community partner is the **Women’s Fund of Winston Salem**. According to its website, “The Women’s Fund engages our community in order to build economic security for women and girls in Forsyth County. Since its inception in 2006, this diverse group of more than 700 women and girls has made a difference by pooling their financial resources to make annual grants that improve the lives of women and girls in our community.” Learn more [here](#).

The Women’s Fund of Winston Salem is a strategic initiative of the [Winston-Salem Foundation](#).

Key Contacts - This connection was established by Phyllis Britnell, former Women’s Fund board member and current volunteer. We may also connect, on occasion, with Andrea Hulighan (a Salem College alumnae!), who is the Director of Strategic Initiatives at the Winston Salem Foundation. Our primary contact will be Phyllis, who can be reached at pabritnell@gmail.com.



While we are doing important work for our community partner, please keep in mind that they are busy and kind enough to give some of their time to help you with your learning. As such, I suggest sending all questions to me, and I can reach out to the community partner when needed.

The data we will be analyzing comes from the Women’s Fund’s *Through a Gender Lens Report*: <https://www.wfgenderlens.org>. Take a few moments to explore the information! Our community partners will tell you more about how this information is used throughout the community.

Course Assessment & Evaluation:

Assignment	Due Date	Percent of Overall Grade
Homework & Writing Exercises	Throughout	20%
Midterm Exam	February 25	20%
Grantee Survey Data Story	March 18	10%
Gender Lens Data Story	April 13	30%
Service-Learning Project Presentation	April 27	5%
Final Exam: Reflection Paper	Final Exam Period	10%
Tableau Certification Test	You choose! (Before final exams end)	5%
Total		100%

***Important:** Thanks to the Modern Language Association (MLA) Humanities Course Innovation Grant program, from which I received a grant of \$3,000, I am able to fund each of you to pursue your Tableau Certification by paying for your test. As you will learn, having a Tableau certification is an incredibly important skill across a wide range of industries.

I am asking that everyone sign up and do their best on the test. If you pass the test and get your certification, you get 10/10 (or 100%) in the “Tableau Certification Test” section listed above PLUS a 2% bump on your Gender Lens Data Story grade. If you don’t pass but it’s clear you tried your best, you get 9.0/10 (or 90%) for your Tableau Certification Test.



Summary of Assignments:

Homework & Writing Exercise - Throughout the course, you will be assigned short, low-stakes assignments that allow you to practice what you are learning in class. Some are currently listed on the daily schedule, but others will be developed as the class progresses based on what you may need to learn more about.

Midterm Exam - I rarely give tests or quizzes because I know not everyone tests well and it's not always the best way to demonstrate your learning in this type of course. However, the midterm exam will be one of those few opportunities for you to demonstrate what you have learned to date and see what concepts you need to review before we delve deep into our service-learning work. The midterm is cumulative.

Grantee Survey Data Story - As we work up to creating a data story for the Women's Fund, we will practice with some simpler data that we collect ourselves. Your goal is to find out how Women's Fund grantees have used the Gender Lens report by creating a simple survey and analyzing and visualizing the data we receive back. We will create the survey as a class, but then you will work individually or with a partner to tell a story to the Women's Fund about this data. This will serve as a valuable audience analysis for our later project, the Gender Lens Data Story.

Gender Lens Data Story - This is the main project that we will be building up to all semester. You can work on the project individually or with a partner. After consulting with our community partner, reviewing the Gender Lens Report data, and reviewing the survey data we receive from Women's Fund grantees, you will determine the scope of your project (what format and story you will be creating). As a major homework assignment, you will write a "project proposal" before digging in to the project so that I can offer you feedback on your idea.

Service-Learning Project Presentation - On April 27th, you will have the opportunity to present to your classmates and our community partner the work you did on this important project! An important part of data storytelling is communicating your story to your audience, so this presentation allows you to gain this experience.

Final Exam Reflection Paper - For your final exam, you will write a reflection paper in which you describe how you used course concepts to effectively create your data story. You will also reflect on the service experience and how it impacted your learning. Your reflection paper should include your audience persona and design checklist that you create for the project. The paper can be submitted online via Moodle at any time during the final exam period.

**All assignment sheets with full instructions will be available on the course Moodle page.

Grading Scale:

Letter	Numerical Equivalent	Letter	Numerical Equivalent
A	93 – 100	C	73 – 77.99
A-	90 – 92.99	C-	70 – 72.99
B+	88 – 89.99	D+	68 – 69.99
B	83 – 87.99	D	63 – 67.99
B-	80 – 82.99	D-	60 – 62.99
C+	78 – 79.99	F	Below 60

Incompletes:

A grade of I is a temporary indication on the student’s record that the requirements of the course have not been completed for justifiable reasons. Typically, a grade of I may only be granted by a faculty member to a student who cannot complete their coursework due to illness, accident or death in the family. Students requesting an Incomplete for reasons other than these conditions must submit an appeal to the Dean of Undergraduate Studies for undergraduate courses and the Dean of Graduate Studies for graduate courses. Such requests must be made by the student, accompanied by written support from the faculty member. It is the student’s responsibility to maintain contact with the faculty member and to ensure that their work is submitted to the faculty member in a timely fashion. By Friday of the seventh full week of the regular term immediately following the term in which the I was earned, the instructor must submit a replacement grade to the Office of the Registrar. If no grade is submitted by that date, the I is converted to an F.

Course Climate:

It is my intent that students from all diverse backgrounds and perspectives be well served by this course, that students’ learning needs be addressed both in and out of class, and that the diversity that students bring to this class be viewed as a resource, strength and benefit. It is my intent to present materials and activities that are respectful of all diversity including gender, sexuality, disability, age, socioeconomic status, ethnicity, race, and culture. I encourage your feedback and ideas along these lines. You are always welcome to let me know ways to improve the effectiveness of the course for you or for other students or student groups.



Expectations and Policies:

Attendance

To be officially enrolled in any course, you must attend the course prior to the census date, which is **January 31, 2022**, for this course. Per college policy, **failure to attend by the census date results in being dropped from the class.**

Students can have **4 absences in this course**. You do not need to tell me that you will be missing class or why; however, you are responsible for making up the work you missed, and you will need to connect with a class colleague to get notes, etc. I do not differentiate between excused and unexcused absences because you have 4 freebies. Save them up! That said, I am, of course, understanding of unexpected hardships, such as a prolonged illness or family problem. Please just contact me as soon as possible in these situations. Given the current COVID-19 situation, I will consider excused absences for any absence that comes directly from Health Services, but I strongly encourage you to attend class virtually if you are well.

Ultimately, missing too much class will result in your inability to succeed in the class.

Late Work/Make-Up Policy

If you miss a scheduled class meeting, you still need to turn in the work that is due. You should make arrangements to turn in your work in advance of your absence. Computer problems are not an acceptable excuse for a late assignment, so remember to back-up your work multiple times. This goes for Moodle errors. You must send me a screenshot asap if you had an error in Moodle, and you should also try to resolve that error through IT.

Major assignments that are turned in late will incur a late penalty of **one letter grade reduction per 24-hour period.**

- **HOWEVER**, things happen. I get it! You are allowed to have **two grace periods** (i.e., you can be one day late twice, or two days late once) on any homework or project except for the presentation, final exam, or Tableau certification test. To take your grace period, just email me to ask for the grace period so I can track it for my records.

You are always responsible for determining what you missed by asking a classmate. I do not re-teach classes to individual students that miss them.

Academic Dishonesty/Plagiarism

Salem students sign the Honor Code, promising not to commit academic dishonesty, including cheating and plagiarism. To review the Honor Code, visit the [student handbook](#).



Time Commitment Expectations

The Salem Standard is that for each semester hour of credit, students will spend at least 50 minutes in class and at least 100 minutes in out-of-class activities (homework, reading, studying for tests, writing papers, etc.).

Drop/Add Policy

A student may drop a course during the first week of classes by submitting a signed change of registration card to the Office of the Registrar. After the first week and through the ninth week, a student will receive a Withdrawal (W) noted on their transcript if they drop the course. After the ninth week of the term, students may no longer drop courses.

Course Withdrawal Policy

It is the student's responsibility to initiate withdrawal from a course. Student withdrawals must take place on or before the course withdrawal date, which is **April 11**. If a student stops attending class and fails to complete a student withdrawal form, the final course grade may result in a grade of "F" for the course. Students who receive financial aid should contact the financial aid office to determine the impact of withdrawal from a course. Withdrawal may affect Satisfactory Academic Progress and continued financial aid eligibility. All students should become familiar with the regulations surrounding Satisfactory Academic Progress, which are detailed on pages 33-36 of the [Academic Catalog](#).

Accommodations

In accordance with the Americans with Disabilities Act (ADA), Salem College seeks to provide reasonable accommodations for individuals with documented disabilities. A student who is eligible for accommodations should seek assistance through Ms. Ida Davis, Director of Academic Support and Disability Services, by calling her at 336-721-2822 or emailing ida.davis@salem.edu. Students should refer to the [catalog section entitled "Services for Students with Disabilities"](#) (page 28) to learn more about the process of requesting accommodations.

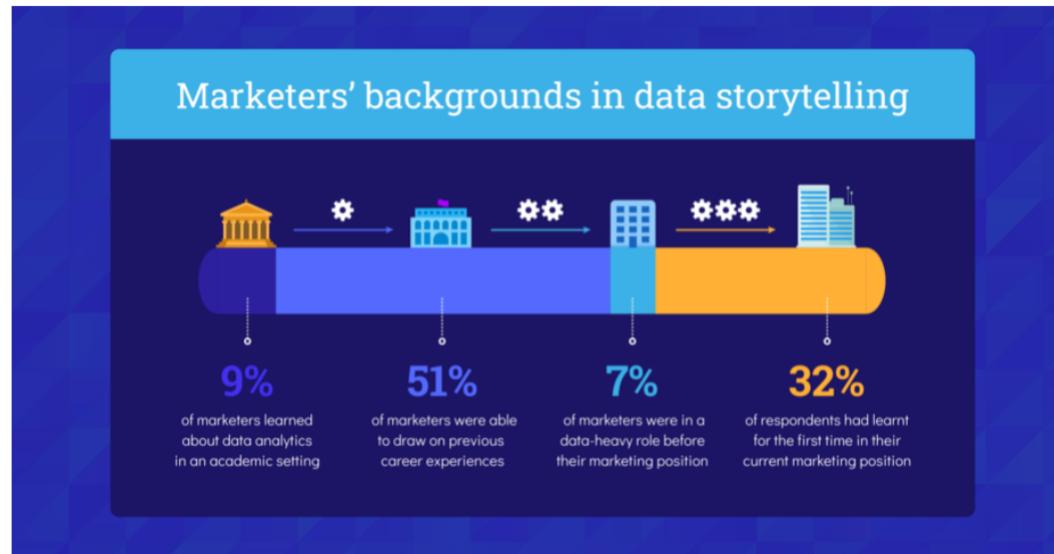
Student Support Services

Salem Academy and College has a wide array of student support services available. To see the primary information about each service, visit the [Student Support Services](#) document.

Tentative Class Schedule

This course has two main learning components: data storytelling and Tableau. Tableau is the technology we will use to create data stories. During most weeks, we will spend one class (typically Wednesday) learning data storytelling concepts and the other class portion (typically Friday) learning Tableau.

While most of our work with the Women's Fund will take place toward the second half of the semester, you will begin to think about this over-arching project early on. Each homework and smaller project are designed to help you accomplish the goals of the final project.



A Sample Data Viz (not story!)

See data story here: <https://venngage.com/blog/marketing-data-storytelling-benchmark/>

IMPORTANT: This schedule is likely to change. I strongly recommend following the schedule here within Google Docs, rather than printing it out.



Key:	
⇒	Important College-Wide Date
△	Assignment Deadline

Date	In class	Homework (to complete for the following class meeting)
Wednesday, Jan 19, 2022	<ul style="list-style-type: none"> -Introductions -Course overview -Review course Moodle page -Annotate the syllabus activity 	<ul style="list-style-type: none"> -Be sure to get your textbook! Note that the ebook is on course reserve from the library. -Read textbook pages pp. 1-19, “Introduction to Driving Change Through Insight”
Friday, Jan 21, 2022	<ul style="list-style-type: none"> -Brief writing activity: What is the value of data storytelling? (Turn in for points.) -Install Tableau on personal laptops. Brief introductory tutorial with sample data set the class creates (discuss data collection, data format, cleaning, preparation, and setting up your workspace) 	<ul style="list-style-type: none"> -Read textbook pages pp. 21-46, “Why Tell Stories with Data?” ⇒ Deadline to drop/add courses is January 25 at 5 pm
Wednesday, Jan 26, 2022	<ul style="list-style-type: none"> -Review of reading. Discuss the three components of data stories and review examples. -Rhetorical appeals -Anatomy of a Tableau Worksheet, understanding dimensions and measures, creating charts 	<ul style="list-style-type: none"> -Watch these tutorials: “Getting Started with Visual Analytics” (6 minutes) and “Data Prep with Text and Excel Files” (5 minutes). Practice these skills and take notes. Bring the notes to our next class for a quick homework check.
Friday, Jan 28, 2022	<ul style="list-style-type: none"> -Learn from community partner about the Women’s Fund’s mission, the gender lens report, and how we can help craft data stories for them. Discuss survey. -Data cleaning and creating basic charts 	<ul style="list-style-type: none"> -Read textbook pages pp. 47-80, “The Psychology of Data Storytelling” -Read textbook pp. 81-94 and 110-118, “The Anatomy of a Data Story”

Date	In class	Homework (to complete for the following class meeting)
	<ul style="list-style-type: none"> -Review of joins and data interpreter creating unions 	<ul style="list-style-type: none"> -Write 1-2 survey questions that would be helpful for our survey of Women’s Fund grantees. Type and email to me. Your questions should reflect an understanding of what our community partners value.
Wednesday, Feb 2, 2022	<ul style="list-style-type: none"> -Analyze sample data stories in light of the psychology of data storytelling and the anatomy of a data story (possible graded writing reflection) -Discuss audience analysis -Work as a class on Women’s Fund survey 	<ul style="list-style-type: none"> -Since it was a lot of information, review the readings from our last class. We’ll cover them a bit more in class on Friday.
Friday, Feb 4, 2022	<ul style="list-style-type: none"> -The psychology of data storytelling -Tableau: Creating charts (cont’d) and analyzing qualitative data 	<ul style="list-style-type: none"> -Finish the case study we began in class (more instructions to be provided) and submit on Wednesday for a homework grade. -Read textbook pp. 121-156, “Data”
Wednesday, Feb 9, 2022	<ul style="list-style-type: none"> -Simple calculations in Tableau -Charts, filtering, and sorting -Complete the psychology of data storytelling lesson from prior class 	<ul style="list-style-type: none"> -Review textbook pp. 121-156, “Data” -Read textbook pp. 157-184, “Narrative”
Friday, Feb 11, 2022	<ul style="list-style-type: none"> -Data & Narrative: An integral lesson -Bias and ethics in data visualization (work on a case study in class) -Creating an audience persona, design checklist, and narrative outline 	<ul style="list-style-type: none"> -Read textbook pp. 195-227, “Visuals Part 1” -Write an audience persona for our Gender Lens project (due for a grade at the beginning of class on Wednesday)

Date	In class	Homework (to complete for the following class meeting)
Wednesday, Feb 16, 2022	<ul style="list-style-type: none"> -Discuss audience personas, design checklists, and narrative outlines -Revise a sample data set in Tableau based on the principles in “Visuals Part 1” 	<ul style="list-style-type: none"> -Read textbook pp. 229-264, “Visuals Part 2’ -Complete the activity from class today and turn it in Friday for credit. 5 points for the data story and 5 points for the paragraph.
Friday, Feb 18, 2022	<ul style="list-style-type: none"> -Brief midterm review -Revise a sample data set in Tableau based on the principles in “Visuals Part 2” -Tableau Dashboards and Formatting 	<ul style="list-style-type: none"> -Watch this tutorial and take notes: https://www.youtube.com/watch?v=JodWmiIxl2c -Study for midterm
Wednesday, Feb 23, 2022	<ul style="list-style-type: none"> -Crafting your data story: lesson & activity -Lesson: Analyzing survey data in Tableau -Goal: Have Women’s Fund survey data back by today 	<ul style="list-style-type: none"> -Revise your data story -Submit tutorial notes -Study for midterm
Friday, Feb 25, 2022	<ul style="list-style-type: none"> △ Midterm Exam - MOVED to Wednesday, March 2nd -View Women’s Fund survey data 	<ul style="list-style-type: none"> -Study for midterm
Wednesday, Mar 2, 2022	<ul style="list-style-type: none"> -Discuss design checklists -Update: Midterm Exam 	<ul style="list-style-type: none"> -Work on Tableau take-home portion of the exam.
Friday, Mar 4, 2022	<ul style="list-style-type: none"> -Best practices for dashboard design Actions/filters -Work in class on Grantee Survey Data Story -Individual help with Tableau ⇒ Spring break begins at 5:15 pm 	<ul style="list-style-type: none"> -Be sure you are prepared for Grantee Survey Data Story peer review for class on March 16th (details shared in class) -Read textbook pp. 264-303, “Crafting Your Own Data Story”
Wednesday, Mar 9,	⇒ Spring break - no class	Spring break



Date	In class	Homework (to complete for the following class meeting)
2022		
Friday, Mar 11, 2022	⇒ Spring break - no class	Spring break
Wednesday, Mar 16, 2022	-Grantee survey data story peer review & in-class work -Discuss project proposal	-Complete Grantee Survey Data Story
Friday, Mar 18, 2022	△ Grantee Survey Data Story Due (Deadline moved to March 23) -Formatting worksheets and dashboards - practice	-Complete Grantee Survey Data Story
Wednesday, Mar 23, 2022	-Project brainstorming: Using what you learned from the survey data, along with your audience analysis and design checklist, begin doing an exploratory analysis of the gender lens data, working towards creating storypoints with a meaningful insight -Data Storytelling in Tableau: Planning and Pre-production Key Performance Indicators (KPIs) -Data Story Revision Activity	-Complete the #makeovermonday review activity we did in class today and submit it by class time on Friday. Use the link below.
Friday, Mar 25, 2022	-Continue working on data story revision activity -Applying Analytics in Tableau -Learn how to register for Tableau Certification	-Spend time looking at the Gender Lens site and think of ways the data stories can be improved. How can you help? What are you interested in exploring? Do we have the data? What do you still need to learn? Write 2 informal paragraphs reflecting on what you think your project for the Women's Fund



Date	In class	Homework (to complete for the following class meeting)
		might be, using some of these questions as a guide. Bring these notes to our next class for a homework grade.
Wednesday, Mar 30, 2022	<ul style="list-style-type: none"> -Work on project proposals in class -Learn how to register for Tableau Certification -Advanced formatting strategies in Tableau 	-Work on Gender Lens Data Story & project proposal
Friday, Apr 1, 2022	<ul style="list-style-type: none"> -Exporting Tableau Data <p>⇒ In-person class is canceled today because I will not be available. Instead, I will provide content online in Moodle.</p>	-Work on Gender Lens Data Story. Be prepared for 4/6 peer review.
Wednesday, Apr 6, 2022	<ul style="list-style-type: none"> -**Register for Tableau certification!! - Create a checklist for reviewing your data stories on Friday. -Peer review of data stories 	-Spend a substantial amount of time working on your Gender Lens Data Story.
Friday, Apr 8, 2022	<ul style="list-style-type: none"> -In-class work on data stories -Peer review of data stories -Review for Tableau certification test 	<p>△ Keep working on the Gender Lens Data Story!</p> <p>⇒ Last day to withdraw from classes is April 11</p>



Date	In class	Homework (to complete for the following class meeting)
Wednesday, Apr 13, 2022	△ Gender Lens Data Story due - EXTENDED to 4/15 -In-class reflection - Discuss what you learned from the service-learning project and how you integrated concepts from throughout the course.	-Begin preparing for your presentation on 4/27
Friday, Apr 15, 2022	⇒ Good Friday - no class * Gender Lens Data Story Deadline extended to 4/17 at 11:59 pm	⇒ Good Friday - no class
Wednesday, Apr 20, 2022	-Discuss and review for final exams. Emphasis on NARRATIVE.	
Friday, Apr 22, 2022	-Discuss and review for final exams -Work on service-learning project presentations	△ Service-Learning Project Presentations due on 4/27!
Wednesday, Apr 27, 2022	⇒ Last day of classes △ Service-Learning Project Presentations today!	Submit your final exam (reflection) during the final exam period to Moodle (between 4/29 and 5/3 at 5:15 pm)

⇒ Exams begin at 8:30 am on April 29th and end on May 3rd at 5:15 pm