DSBA 6010: Analytical Storytelling  
Fall 2019  
Doug Hague  
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**Credits, Days/Time, Location:**  
3 Graduate Credits  
Mondays 6:00 – 8:45 pm in 1104 CCB

**Faculty Information:**  
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Office Hours: Monday: 4:00-6:00 at TBD or by appointment

**Catalog Description:**  
This is a topics course, covering advanced topics in Data Science. The text below has not been published in the graduate course description catalog.

The Data Science cycle includes many phases, including problem definition, data acquisition, data engineering, analysis, reporting, interpreting, visualization, and presentation of the results of analysis/insights derived. The Storytelling with Data course covers the last two steps in this sequence. However, these steps are not simple. It is often the difference between successful and unsuccessful projects. Therefore, this class will be more comprehensive than the usual courses on storytelling that mostly focus on the best visual presentation of the results obtained through the analysis. It will focus on data/analysis interpretation, visualization, presentation, speaking, and situation awareness.

**Prerequisites:** Consent of the Instructor

**Course Objectives:**  
Students in this course will learn how to interpret data and results of analysis, select appropriate data and analysis presentation formats and visualizations, make effective presentations, speak effectively, behave in front of the audience, and understand group dynamics.
Teaching Strategies:
Materials presented in this course will be covered through lectures, homework, in-class exercises and student presentations, and role playing.

Required Books:
Storytelling with Data: A Data Visualization Guide for Business Professionals, Knaflic 2015
Exceptional Presenter: A Proven Formula to Open Up and Own the Room, Koegel, 2007

Suggested Class Material:
Opinion pieces:
Kathleen Maley-Key Bank on Engaging Business Partners
http://www.presentation-guru.com/author/jude-barak/
http://www.storytellingwithdata.com/
http://storytellingwithdata.blogspot.com/
https://www.businessillustrator.com/graphics_storytelling_effective_powerpoint_presentatio
http://freakonomics.com/
https://www.makeovermonday.co.uk/makeovers/

Videos:
https://www.youtube.com/watch?v=8EMW7io4rSI

TED talks:
https://www.youtube.com/watch?v=6xsvGYIxJok
https://www.youtube.com/watch?v=TDCYJ3_gx2w

Reference Books:
Data Points: Visualization that Means Something, Yau, Wiley & Sons, 2013
Even a Geek Can Speak: Low-Tech Presentation Skills for High-Tech People, Asher, Persuasive Speaker Press, 2001
The Exceptional Presenter Goes Virtual: Take Command of Your Message, Create and “in-Person” Experience and Captivate Any Remote Audience, Koegel, Greenleaf Group Press, 2010

Institutions:
http://www.frameworksinstitute.org/
https://www.perceptualedge.com/
**Evaluation Methods:**
- Homework: 30%
- In Class Assignments: 30%
- Project: 40%

**Grade Scale:**
- A = 90-100%
- B = 80 - 90%
- C = 70 - 80%
- D = 60 - 70%
- F = below 60

**Graduate Version:** A, B, C, U or P/F

**Topical Outline of Course Content**
1. Introduction to Analytical Storytelling
2. Developing Your Story
3. Effective Visuals
4. Effective Visuals: Clutter
5. Delivering Presentations
6. Cognitive Aspects of Visualization
7. Visuals from the Real World
8. Developing an Analytical Story
9. Remote Presentations
10. Putting it Together
11. Things Change and Case Study
12. Trust and Influence
13. Practice, Practice, Practice

**Course Policies**

**Attendance:**
Students are expected to attend all class meetings and to arrive before the class starts. Class topics are integrated, with each week building on prior weeks. Failure to attend or to arrive on time can adversely affect both individual performance, ability to contribute to the group project, and the earned letter grade. If a student misses a class due to work or other reasons, it is their responsibility to get notes from peers; instructors do not hold extra repeat class sessions.

Students will be allowed to miss no more than 2 classes without affecting their final grade. For every 3 absences the final grade will be lowered by one letter grade. In Class Participation grades will be 0 for classes that are missed.
Grade Discussions:
The instructor will discuss grades only in person (and not via telephone or e-mail) and only with the student (not with parents, spouses, etc). Office hours are listed in the syllabus.

Electronic Devices:
Students are not allowed to use any electronic devices during the class, unless otherwise instructed by the instructor.

Academic Integrity:
All students are expected to adhere to the UNC Charlotte Code of Student Academic Integrity as specified in the current Catalog. Among other things, this code forbids cheating, fabrication or falsification of information, multiple submission of academic work, plagiarism, abuse of academic materials, and complicity in academic dishonesty. Homework should be done individually. Team projects will be assigned groups and will be so shown as a team project in Canvas.

Students should select unique subject areas for the Adapting Visualizations homework. If by chance more than one student chooses the same original visualization, modified visuals shall be unique enough for the grader to easily determine that the students worked independently. If the modified visuals are even somewhat similar, both students will be given 0 for that assignment and notified. Please use care in selecting visuals to ensure uniqueness from other students. Students should also not select visuals from Data Storytelling sites or books where before and after visualizations are already provided.

Diversity Statement:
All students and the instructor are expected to engage with each other respectfully. Unwelcome conduct directed toward another person based upon that person’s actual or perceived race, actual or perceived gender, color, religion, age, national origin, ethnicity, disability, or veteran status, or for any other reason, may constitute a violation of University Policy 406, The Code of Student Responsibility. Any student suspected of engaging in such conduct will be referred to the Office of Student Conduct for possible conduct action.

Inclement Weather:
University Policy states the University is open unless the Chancellor announces that the University is closed. The inclement weather hotline number to call is 704-786-2877. In the event of inclement weather, check your email and NinerAlerts. The instructors generally only cancel class if the University is closed.

UNIVERSITY, COLLEGE AND DEPARTMENTAL POLICIES

University Policies:

Code of Student Responsibility:
“The UNC Charlotte Code of Student Responsibility (the Code) sets forth certain rights and responsibilities in matters of student discipline. The Code defines these responsibilities and guarantees you certain rights that ensure your protection from unjust imposition of disciplinary
penalties. You should familiarize yourself with the provisions and procedures of the Code” (Introductory statement from the UNC Charlotte brochure about the Code of Student Responsibility). The entire document may be found here.

**Academic Integrity:**
All students are required to read and abide by the Code of Student Academic Integrity. Violations of the Code of Student Academic Integrity, including plagiarism, will result in disciplinary action as provided in the Code. Students are expected to submit their own work, either as individuals or contributors to a group assignment. Definitions and examples of plagiarism and other violations are set forth in the Code. The Code is available from the Dean of Students Office or online at: [UNC Charlotte Code of Student Academic Integrity](#).

*Faculty may ask students to produce identification at examinations and may require students to demonstrate that graded assignments completed outside of class are their own work.*

**Course Credit Workload:**
This 3-credit course requires 3 hours of classroom or direct faculty instruction and 6-7 hours of out-of-class student work each week for approximately 15 weeks. Out-of-class work may include but is not limited to: required reading, library research, written assignments, programming/project based assignments, and studying for quizzes and exams.

**Special Needs:** If you have a documented disability and require accommodation in this course, contact Disability Services, Fretwell 230, phone: 687 4355 voice/TDD) the first week of the semester. Information about available services may be found at Office of Disability Services. Accommodations for learning will be arranged by that office and communicated to the Instructor. If you speak English as a second language, please inform the instructor.

**Diversity Statement:**
UNC Charlotte strives to create an academic climate in which the dignity of all individuals is respected and maintained. Therefore, we celebrate diversity that includes, but is not limited to ability/disability, age, culture, ethnicity, gender, language, race, religion, sexual orientation, and socio-economic status.
All students are required to abide by the Sexual Harassment Policy and the Standard for Responsible Use of Information Resources. Sexual harassment, as defined in the UNC Charlotte Sexual Harassment Policy, is prohibited, even when carried out through computers or other electronic communications systems, including course-based chat rooms or message boards.

**Religious Accommodation:**
It is the obligation of students to provide faculty with reasonable notice of the dates of religious observances on which they will be absent by submitting a Request for Religious Accommodation to their instructor prior to the census date for enrollment for a given semester. The census date for each semester (typically the tenth day of instruction) can be found in UNC Charlotte’s Academic Calendar.