

Digital Data & Analytics – MEJO 713

Prof. Shannon C McGregor

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Office Hours: By appointment – happy to schedule Zoom meetings whenever

COURSE DESCRIPTION:

This course explores the fundamental concepts and principles that underlie techniques for extracting useful information and knowledge from data, particularly focusing on modern digital platforms. The primary goal of the course is to help you view problems from a data perspective and understand how to systematically analyze such problems. More importantly, the goal of this class is for you to learn what data actually mean and how you can use data strategically. This data-analytic thinking can then be applied in a variety of ways, from data-driven storytelling to the creation of actionable insights.

OBJECTIVES:

- Understand the types of questions that data can and cannot answer, and how data are used in a variety of communication fields
- Understand the ethical implications of accessing / using data
- Understand the basics of data analysis
- Learn how to best communicate and present the results of your analysis

REQUIRED MATERIALS:

- StuKent Marketing Analytics Textbook
 - This textbook is available digital / online
 - Access will be available by the first day of class (registration is required – an instruction email will be sent to give you registration information)
- Current industry and topical readings will be required most weeks. All of these readings will be posted under the *Sakai Resources* tab. To keep the class current and adaptive, these readings will populate throughout the semester but will always be available at least 1-2 weeks in advance.
- StuKent Stimulation: We will also be using the StuKent Mimic Pro Simulation. Like the digital textbook, registration will be required, and details will be sent to you via email.

SAKAI, EMAIL, AND FORUMS:

- **Sakai:** All course info will be posted on Sakai. Most of the content can be found under the *Resources* tab – things you will need to each week will be posted under that week's folder, located in the *Resources* tab. To keep things current, folders will be populated with content throughout the semester, but I will always post readings and forum posts at least 1 – 2 weeks in



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advance, if not more. You are responsible for any course changes that may be made on Sakai, including changes to the syllabus or assignments.

- **Email:** Please make sure you are checking your UNC email. You are responsible for any course communications I send your way.
- **Forums:** As is standard with most online courses, the forums will serve as a critical part of this course. So, keep constant contact here. Forum posts are sometimes posted 1 – 2 weeks in advance, but you should not respond to a forum until granted access and/or the forum is due. This will ensure you are learning and reviewing the material before responding to the forum prompts. Most of the Exercises will also be completed via the Forums, and instructions will be given on each Exercise.

SPECIAL ACCOMMODATIONS:

If you require special accommodations to attend or participate in this course, please let the instructor know as soon as possible. If you need information about disabilities visit the Accessibility Resources & Services site at <https://ars.unc.edu/>.

SEEKING HELP:

If you need individual assistance, it is your responsibility to meet with the instructor. If you are serious about wanting to improve your performance in the course, the time to seek help is as soon as you are aware of the problem – whether the problem is difficulty with course material, a learning difference, or an illness.

DIVERSITY:

The University's policy on Prohibiting Harassment and Discrimination is outlined on the Equal Opportunity and Compliance Office's webpage (<https://eoc.unc.edu/our-policies/ppdhrm/>). UNC is committed to providing an inclusive and welcoming environment for all members of our community and does not discriminate in offering access to its educational programs and activities on the basis of age, gender, race, color, national origin, religion, creed, disability, veteran's status, sexual orientation, gender identity, or gender expression.

ACCREDITATION:

The Hussman School of Journalism and Media's accrediting body outlines a number of values you should be aware of and competencies you should be able to demonstrate by the time you graduate from our program. Learn more about them here: <http://hussman.unc.edu/accreditation>. No single course could possibly give you all of these values and competencies; but collectively, our classes are designed to build your abilities in each of these areas. The values and competencies associated with this course include being able to:

- apply basic numerical and statistical concepts
- apply tools and technologies appropriate for the communications professions in which they work
- demonstrate an understanding of the diversity of peoples and cultures and of the significance and impact of mass communications in a global society



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- demonstrate an understanding of professional ethical principles and work ethically in pursuit of truth, accuracy, fairness, and diversity
- think critically, creatively, and independently
- write correctly and clearly in forms and styles appropriate for the communications professions, audiences, and purposes they serve

HONOR CODE:

The Honor Code (<https://catalog.unc.edu/policies-procedures/honor-code/>) forms a bond of trust among students, faculty, and administrators. The University of North Carolina at Chapel Hill operates under a system of self-governance, as students are responsible for governing themselves. As such, our University is transformed into a powerful community of inquiry and learning. The Honor Code embodies the ideals of academic honesty, integrity, and responsible citizenship, and governs the performance of all academic work a student conducts at the University. Acceptance of an offer of admission to Carolina presupposes a commitment to the principles embodied in our century-old tradition of honor and integrity.

GRADING & ASSIGNMENTS:

Grading scale

Consistent with graduate Hussman Courses, grades will be distributed in the format of either a High Pass (H), Pass, Low Pass (L) or Fail (F). I will assign you a grade on your Forum posts, Simulator activity, Exercises, and on Final. Your forum posts and simulator activity will be assigned an overall grade once you have completed all posts and simulations, but if you have any questions about your progress on these, please don't hesitate to ask. I will give you a letter grade on each of your Exercises, as well as an overall Exercise grade at the end of the semester. The grading system generally breaks down as follows:

H: Professional equivalent: The work is stellar. If this was an internship, I would go out of my way to hire you, based on your work on the assignment.

P: Professional equivalent: You met all the requirements of the assignment. If this was an internship, you demonstrated that you were a competent employee. You showed proper work ethic, that you were thinking critically about the material, and that you understand the concepts of the class.

L: Professional equivalent: Though not a failing effort, you showed a lack of understanding the material, a lack of effort, and/or a lack of critical thinking.

F: Professional equivalent: Your work was not professional and did not show a competent level of understanding, effort or critical thinking.

Grading rubric

A note on grading rubrics: While the forum posts and simulations are pretty straightforward, each Exercise, as well as your final, will have an Assignment Grading Rubric. These will be posted under the "Assignment Rubrics" folder under the Resources Tab when each assignment is given out.

Late assignments will lose 10% for every day that they are late.



Your overall grade for the course will be based on the following criteria:

Forums: 20%

Assignments

Consistent with many of your online courses in this program, much of your work will be based on keeping up with weekly readings, reviewing any PowerPoint slides or additional materials, such as brief async videos, and related participation. A forum prompt will be posted each week, and your response will be due the following week. These prompts will populate throughout the semester. Each week's info will be posted in weekly assignment folders found under the Resources Tab. Forum discussion prompts will occur in the Forums Tab.

More than anything, I am looking for critical thought out of your posts. Each post will require several paragraphs of written thought and feedback. Many forum prompts will have a subset of questions. Additional information will be found within each forum prompt.

Readings

It is expected that you keep up with class readings. Each week, you can find the readings within the weekly folders under the Resources tab. These readings will include a combination of: The StuKent digital textbook, current industry articles and reports, and data files. I will stay at least 1 – 2 weeks ahead of you in posting these readings, as the goal of the course is to give you plenty of time to complete assignments but also to allow us to adapt as the semester progresses. Many times, there are great new industry readings, so this format allows us to stay current throughout the semester. Readings can also include occasional PowerPoints I post, as well as any async materials I may include, such as short instructional videos.

Simulator: 20%

A teaching principle of mine is the classic: One of the best ways to learn is to learn by doing. In short, the big goal of the simulator is to give you a real-world feel of what it's like to work with some of this data. Therefore, you will go through six rounds of digital data simulation via the StuKent simulator. Each simulation takes about an hour. You will make strategic decisions that relate to writing digital content, thinking about digital products, and how to communicate about those projects online when considering a budget. More than anything, I'm interested in what you learn from these simulations. Thus, at the conclusion of each simulation, I want you to think about all the data you just created and write informed feedback and analysis in response to your work.

* A note: there are 10 total simulations. If you complete all ten, you get a certificate from StuKent that is a nice line on your resume. Again, no need to for the course, but since you have access to all 10, no reason not to finish them after the semester ends.

Exercises: 20%

Exercises are essentially slightly meatier forum posts. While most of the simulations occur during the first half of the course, the exercises mostly occur in the second half of the semester. These exercises will require you to use data that I give you. Then, you will analyze that data to make informed, strategic



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decisions. *Exercise Rubrics will be posted under the Assignment Rubrics folder (under the Resources Tab) when each Exercise is given.*

Final: 40%

The final in this course will pull together all that you have learned from class readings, PowerPoints, simulations, and exercises. It will require you to do a data and analytics review of an organization's digital activity. This will include your gathering of their public data, as well as potentially capturing other 3rd Party data about that organization. You will write this up into a strategy & research memo. The memo will allow you to offer your assessment of the organization's digital presence, strategy and audience. The assignment will also allow you to demonstrate that you have competently learned the class material. The organization you review can be one that you currently work for, one that you would like to work for, or another real-world client that may interest you. *We will discuss the final about mid-February. At that time, the full grading rubric for the final will be released under the Assignment Rubrics folder (under the Resources tab).*

NOTES ON CLASS STRUCTURE:

I hope that you will find that I'm willing to put in as much time into this course as you are, meaning: please don't hesitate to reach out if you have questions. I always try to respond to emails within one business day. I'm also always open to Skyping, Google Hangouts, or phone chats – just email me and we can coordinate a time. Furthermore, I plan on having a weekly “open video office hour” one evening a week. I will confirm a consistent time after the first week of class, based on your feedback of what is best for the class. The format will basically be an unstructured hour where we have an optional sync session – anyone that is available can log-in, and we will have the hour to discuss any further questions you may have as an individual, or as a group, about that week's material.

COMMUNICATION:

This is a class rooted in the practice of communication – so let's communicate! Use social media or Google or Sakai to communicate with one another or share ideas. Email is also important – and can be facilitated via Sakai. Collaborative work or helping one another can be fostered with Google Docs. I'll do my best to respond to emails within 24 hours (except for weekends). If something more urgent pops up, you may always @ me on Twitter.

WHO AM I?

I'm Dr. Shannon McGregor. I joined the faculty at UNC's [Hussman School of Journalism and Media](#) in the summer of 2020. I am also a senior researcher with UNC's [Center for Information, Technology, and Public Life](#). Before coming to UNC, I was an assistant professor in the Department of Communication at the University of Utah. I have a PhD from the School of Journalism at the University of Texas, an MA from the College of Journalism and Communication at the University of Florida, and a BA in Journalism, Public Relations, and Political Science from Flagler College. I'm a former digital storyteller and editor, and I've been teaching in communication for over a decade. I also do research, which focuses mostly on political communication, social media, and journalism. You can find out more about my work at www.shannoncmcgregor.com or by following me on Twitter: @shannimcg



WEEKLY CLASS SCHEDULE:

**of course, all potentially subject to change due to, well, the state of things*

Week 1 | January 19 – What are analytics? What are digital analytics? What do we mean by *data*?

1. Start digital reading on Sakai
2. Get comfortable with the class Sakai site
3. Review the first forum writing prompt (due next week)
4. Watch the ~18 minutes intro video on the StuKent class site that gives a necessary overview of the digital simulator we will use in class
5. Read: Chapter 1 – An overview of marketing analytics

Week 2 | January 25 – Where do the data come from? What really is “big data”?

1. Forum post 1 – due by 11:59pm, Wednesday, January 27th
2. Read: Chapter 3 – Data technologies AND digital readings on Sakai
3. Start Simulation I on StuKent Simulator (MimicPro)

Week 3 | February 1 – Data platforms & acquisition channels

1. Forum post 2 – due by 11:59pm, Wednesday, February 3rd
2. Read: Chapter 5 – Marketing data platforms AND digital readings on Sakai
3. Start Exercise 1 (due next week)

Week 4 | February 8 – Meaning from data: engagements vs conversion

1. Forum post 3 – due by 11:59pm, Wednesday, February 10th
2. Due: Exercise 1
3. Read: Chapter 6 – Extracting meaning from data and the web AND digital readings on Sakai
4. Start Simulation II

Week 5 | February 15 – Marketing analytics metrics & retention

(note: UNC has designated Monday & Tuesday, February 15-16 as Wellness Days. Please take whatever sort of break those two days that is helpful for you).

1. Forum post 4 – due by 11:59pm, Wednesday, February 17th
2. Read: Chapter 12 – Marketing analytics metrics AND digital readings on Sakai
3. Start Simulation III

Week 6 | February 22 – A/B testing & experimentation

1. Forum post 5 – due by 11:59pm, Wednesday, February 24th
2. Read: Chapter 8 – A/B testing AND Chapter 9 – Experimental design AND digital readings on Sakai
3. Start Simulation IV

Week 7 | March 1 – Audience segmentation

1. Forum post 6 – due by 11:59pm, Wednesday, March 3rd



2. Read: Chapter 7 – Segmentation & targeting AND digital readings on Sakai
3. Start Simulation V
4. Start Exercise 2

Week 8 | March 8 – AI & analytics

(note: UNC has designated Thursday and Friday, March 11-12 as Wellness Days. Please take whatever sort of break those two days that is helpful for you).

1. Forum post 7 – due by 11:59pm, Wednesday, March 10th
2. Read: Chapter 10 – Artificial intelligence and analytics AND digital readings on Sakai
3. Start Simulation VI

Week 9 | March 15 – Data visualization for analytics / News and analytics

1. Forum post 8 – due by 11:59pm, Wednesday, March 17th
2. Due: Exercise 2
3. Read: Chapter 11 – Data visualization AND digital readings on Sakai
4. Start Exercise 3

Week 10 | March 22 – Statistics & analytics

1. Forum post 9 – due by 11:59pm, Wednesday, March 24th
2. Read: Chapter 13 – Analyzing A/B AND Chapter 14 – Marketing mix models AND Chapter 15 – Moderation in marketing mix models AND digital readings on Sakai
3. Due: Exercise 3
4. Start Exercise 4

Week 11 | March 29 – Video analytics & YouTube

1. Forum post 10 – due by 11:59pm, Wednesday, March 31st
2. Read: Digital readings on Sakai
3. Due: Exercise 4
4. Start Exercise 5

Week 12 | April 5 – Facebook, Twitter, & Instagram analytics

(note: UNC has designated Monday, April 5 as a Wellness Day. Please take whatever sort of break that day that is helpful for you).

1. Forum post 11 – due by 11:59pm, Wednesday, April 7th
2. Read: Digital readings on Sakai
3. Due: Exercise 5
4. Start Exercise 6

Week 13 | April 12 – Website analytics

1. Forum post 12 – due by 11:59pm, Wednesday, April 14th
2. Read: Digital readings on Sakai
3. Due: Exercise 6



4. Start Exercise 7

Week 14 | April 19 – Ethics in digital data and big data

1. Forum post 13 – due by 11:59pm, Wednesday, April 21st
2. Read: Digital readings on Sakai
3. Due: Exercise 7

Week 15 | April 26 – Final Review

Due: Schedule a ~30-minute phone or Zoom meeting with me to discuss the final project. Sign up times will be posted on Sakai

Week 16 | May 3 – 📅 It's the final countdown 📅

Due: Final project, by 11:59pm, Thursday, May 6th