

Sport, Social Media, & Advanced Data Analytics

SPM 4711

Class 29819

3 Credits | Spring 2026

Course Information

INSTRUCTOR Aoyang Shi, M.S.

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OFFICE HOURS Monday 3:00 pm – 5:00 pm & by appointment

MEETING MWF 1:55pm – 2:45pm

TIME/LOCATION

COURSE DESCRIPTION

- The course accounts the historical development of social media and human society culminating in the social media boom. Students discuss the theories behind social media and human society, usages of social media in the sport industry, and learn different ways of analyzing social media including data collection, descriptive statistics, quantitative analysis, and machine learning (artificial intelligence) sentiment analysis.

PREREQUISITE KNOWLEDGE AND SKILLS

- STA 2023 & Sophomore standing & above

COURSE FORMAT

- **Instructional Methods:** This course consists of lectures, readings, and discussions to provide students with a variety of learning methods. You are responsible for observing all posted due dates and are encouraged to be self-directed and take responsibility for your learning.
- **Minimum Technology Requirements:** The University of Florida expects students to acquire computer hardware and software appropriate to his or her degree program. Technology will be an important component of this course. Please bring your smartphone and laptop (either PC or MAC) with you to class. Be sure that these devices are charged and connected to the internet (UF WIFI networks include: *eduroam* and *ufgetonline*), they will be utilized as a part of regular class activities.

- **Minimum Technical Skills:** To complete your tasks in this course, you will need a basic understanding of how to operate a computer. The software and tools we need to use in class include Microsoft Excel, R Studio, ChatGPT.

If you are unable to comply with these requirements, please see me for accommodations.

COURSE LEARNING OBJECTIVES:

The primary objectives of this class are to introduce the interaction of sport and social media and examine tools to analyze social media content. By the end of the course students will be able to:

1. Describe social media terms
2. Discuss social media and the sport industry
3. Explain ways to collect social media (big) data
4. Analyze social media descriptively using analytical tools including RStudio
5. Apply quantitative analyses to examine trends in social media
6. Examine social media content using artificial intelligence and machine learning techniques
7. Create an executive report using social media analytics discussing current issues in sport

COURSE COMMUNICATION

All course communication will occur in class, through the course website (e.g., announcements), or via students' UFL email accounts. Students should check their UFL email regularly and enable Canvas notifications to ensure they receive all course communication. Students should not contact instructors using personal email accounts.

The preferred method of contacting the instructor or TA is through UFL email rather than Canvas mail. This helps us respond to your messages as quickly as possible. I aim to reply to all emails within 48 business hours (Monday–Friday, 8 a.m.–5 p.m.).

GRADING

GRADING SUMMARY

Assignment	Points	Percent of Total Grade
Current Event Presentation	30 pts.	6%
Content Assignments	3 × 15 pts. = 45	9%
Excel Assignments	4 × 15 pts. = 60	12%
RStudio Assignments	6 × 15 pts. = 90	18%
Midterm Project	120 pts.	24%
Final Project	130 pts.	26%
Peer Evaluation	10 pts.	2%
Class Participation	15 pts.	3%
Total	500 pts.	100%

GRADING SCALE

Overall Course Points	Percentage	Letter Grade
450 pts. – 500.0 pts.	90 – 100%	A
435 pts. – 449.9 pts.	87 – 89.9%	B+
415 pts. – 434.9 pts.	83 – 86.9 %	B
400 pts. – 414.9 pts.	80 – 82.9%	B-
385 pts. – 399.9 pts.	77 – 79.9%	C+
365 pts. – 384.9 pts.	73 – 76.9%	C
350 pts. – 364.9 pts.	70 – 72.9 %	C-
335 pts. – 349.9 pts.	67 – 69.9%	D+
320 pts. – 334.9 pts.	64 – 66.9%	D
300 pts. – 319.9 pts.	60 – 63.9%	D-
299.9 pts. or less	59.9% or lower	E

GUIDELINES FOR ASSIGNMENTS

1) Current Event Presentation (10%): Each student will select one current event (published within the last 6 months) related to sport, social media, OR sport analytics and give a concise 5-minute presentation to the class. After presenting, the student will pose three discussion questions to facilitate conversation connecting the event to concepts from the course.

This assignment helps students build awareness of real-world developments, practice analytical thinking, and strengthen communication skills. The presentation will be evaluated using the following criteria:

1. Relevance of Topic (10 points) — The event is recent and clearly tied to course subject areas.
2. Accuracy & Clarity of Presentation (5 points) — The student clearly summarizes the event and demonstrates understanding.
3. Connection to Course Concepts (10 points) — The student makes meaningful, thoughtful links to class theories, frameworks, or analytics tools.
4. Quality of Discussion Questions (5 points) — Questions promote thoughtful discussion and application of course content.

Total: 30 points (6%)

2) Content Assignment (9%): These assignments are related to the readings and class materials and will focus on social media content and the sport industry. For each of these assignments there will be questions that are not technical ones (you will not need RStudio or Excel for these assignments), and you will be required to include external sources, references, and material from social media platforms, academic studies, and online content. Content assignments should be no longer than one page unless including images. These assignments do not have “correct” answers and the assessment is based on the depth and breadth of the assignment including using examples and references.

3) Excel (12%): Each of the excel assignments include an instructions sheet in the Excel file. Answers will usually be technical ones requiring students to perform functions and calculations in Excel and the spaces for the answers will be highlighted. Students are required to submit the completed Excel file with the completed answers.

4) R Studio (18%): For each of the RStudio assignments you are required to use script to execute commands in RStudio relevant to the week's assignment and submit screenshots with the completed script and other material relevant to the specific assignments. These are technical assignments that require the use of RStudio. Relevant data and examples of the script are included in the week's guidelines documents. Students may complete the assignments using different scripts from online resources if the results are similar.

5) Midterm Project (24%): This is an individual project. Instructions for this assignment will be provided on Canvas.

6) Final Project (26%): The final project includes statistical and/or sentiment analyses and/or text mining using R Studio covered in class and a written section. Additionally, each group will have a 15-minute presentation, followed by a 5-minute Q&A session. More details will be provided on Canvas.

7) Peer evaluation (2%): All team members should submit peer evaluation regarding group final group project. The form will be uploaded on the course Canvas and should be submitted after the final group presentation (**by Apr. 25th, 11:59pm**). A lack of contribution to your team project will significantly affect your grade.

Your average team evaluation at the end of the semester will be used to adjust the amount of team points that you will receive as follows:

Your average evaluation for semester		Your percent of team points received
90% or above		Full points (100%)
85% to 89%		90%
80% to 84%		70%
70% to 79%		50%
69% or below		10%

For instance, let's assume your team performs exceptionally well and earns the maximum number of team points for the semester, which is 130 points. However, if your team feels that you didn't contribute significantly and consequently rates you an average evaluation of 81%, you would receive only 91 points ($130 * 70\%$) for all team-based assessments. Conversely, a team member with an average evaluation of 92% would secure the full 130 points for all team-based assessments. This example illustrates how group evaluations can lead to significantly different grades for members within the same team.

Participation in the evaluation process is not optional. If you fail to turn in an evaluation for any person on your team at the time that evaluation is due, you will receive **ZERO** points for the group project.

8) Class Participation (3%): Given the format of this course, your participation in discussion is critical. You are encouraged to finish all the in-class exercises during class time and be prepared to talk and contribute to class discussions.

LATE POLICY

Assignments are due at 11:59 p.m. on dates indicated on the syllabus and on Canvas. Students have a 48-hour flex period afterward to submit with no late penalty. There will be zero tolerance or extensions beyond those days as all students are automatically granted two extra days to navigate any submission or technical issues.

Weekly Course Schedule

Unit	Topic	Assignments
Module 1		
Week 1 Jan 12-16	Introduction	- Download Excel - Download R and R Studio
Week 2 Jan 19-23 (Jan 19 no class)	Social media overview	- Excel 1
Week 3 Jan 26-30	Ethics, use, and sport	- Content assignment 1 - Exce 2
Week 4 Feb 2-6	Production and consumption	- Excel 3
Module 2		
Week 5 Feb 9-13	Data types, sources, and data collection tools	- Excel 4
Week 6 Feb 16-20	RStudio	- Content assignment 2 - R Studio 1
Week 7 Feb 23-27	Midterm project	- Midterm project
Module 3		
Week 8 Mar 2-6	Summary statistics	- R Studio 2
Week 9 Mar 9-13	Data collection and creating datasets	- R Studio 3
Week 10 Spring break	Spring Break	
Week 11 Mar 23-27	Volume and content analysis	- RStudio 4
Week 12 Mar 30-Apr 3	Statistical analyses of social media data	- Content assignment 3 - RStudio 5
Module 4		

Week 13 Apr 6-Apr 10	Sentiment analysis	- RStudio 6
Week 14 Apr 13-17	Sentiment analysis Final Project Q&A	
Final		
Week 16 Apr 20-Apr 24	Final project presentations	- Final project - Peer evaluation

The course schedule is tentative and might change based on the pace of the lectures and student needs. Changes to the syllabus will be announced through Canvas. The instructor bears no responsibility for announcing the changes to each individual student.

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GENERATIVE AI POLICY

Students are permitted to use AI tools (e.g., ChatGPT, GitHub Copilot, or other R assistants) in this course as a learning aid for understanding R programming concepts, troubleshooting code, or exploring alternative approaches. However:

- All submitted work must reflect your own understanding. You are responsible for verifying the correctness of AI-generated content.
- You must cite or acknowledge any substantial use of AI in assignments (e.g., “assisted by ChatGPT for code debugging”).
- AI may not be used to generate full assignments, exams, or projects without modification or understanding — doing so will be considered academic dishonesty.
- The instructor and TA may ask you to explain any submitted code or analysis to demonstrate your understanding.

ADDITIONAL CAMPUS RESOURCES

HEALTH & WELLNESS

- U Matter, We Care: If you or a friend is in distress, please contact umatter@ufl.edu or 352 392-1575
- Counseling and Wellness Center: <https://counseling.ufl.edu/> or 352-392-1575
- Field and Fork Food Pantry: Reitz Union North Lawn. <https://pantry.fieldandfork.ufl.edu/>
- Sexual Assault Recovery Services (SARS) - Student Health Care Center: 352-392-1161
- University Police Department: 352-392-1111 (911 for emergencies) or <http://www.police.ufl.edu/>

ACADEMIC & CAREER RESOURCES

- UF Computing Help Desk: 352-392-4357 or <https://it.ufl.edu/helpdesk/>
 - Career Connections Center: Provides career assistance and counseling in the Reitz Union. 352-392-1601 or <https://career.ufl.edu/>
 - Gator Career Closet: Provides free professional attire for career fairs, interviews, and workplaces at C3 Front Desk in the Reitz Union, 1st Floor. <https://careerhub.ufl.edu/resources/career-closet/>
 - Library Support: Provides various ways to receive assistance with respect to using the libraries or finding resources. <http://cms.uflib.ufl.edu/ask>
 - Teaching Center: Provides general study skills and tutoring in Broward Hall. 352-392-2010 or 352-392-6420, <http://teachingcenter.ufl.edu/>
 - Writing Studio: Helps brainstorming, formatting, and writing papers in 302 Tigert Hall. 352-846-1138 or <http://writing.ufl.edu/writing-studio/>
 - Student Complaints On-Campus: <https://sccr.dso.ufl.edu/policies/student-honor-code-student-conduct-code/>
- On-Line Students Complaints: <http://distance.ufl.edu/student-complaint-process/>