ADV 4331 AI-Driven Social Media Insights/MMC 6936 Social Media Analytics & Strategy
Fall 2024
Meeting Time: Tuesdays 11:45 am – 1:40 pm and Thursdays 12:50 – 1:40 pm
Meeting Location: WEIM 1076

Instructor:
Dr. Yang Feng
E-mail: y.feng@ufl.edu
Office: Weimer Hall 1200
Office Hours: Tuesdays/Thursdays 9:30 am– 10:30 am (Zoom: https://ufl.zoom.us/j/2878807530)
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Prerequisites:
Undergraduate students: ADV 3008 and MAR 3023 with minimum grades of C and Advertising major of junior standing or higher.
Graduate students: Consent of instructor or graduate adviser.
No previous programming experience required.

Course Description
This course caters to students intrigued by social media campaigns, including influencer marketing and societal initiatives, irrespective of their programming background. It melds the theoretical underpinnings of social media analytics with hands-on experience in Python and supplementary software tools, presented through lectures, workshops, and interactive discussions.

The semester begins with an immersion into Python's core concepts and essential packages tailored for social media analysis. As the course progresses, we shift our focus to real-world social media campaign studies. Students will be equipped to harness Python for comprehensive brand solutions within the algorithmic social media landscape, encompassing data acquisition, analysis, and visualization.

What you need to bring to class
Your laptop (either PC or MAC) and earphone

Software and tools we need to use in class
Google Colab, Microsoft Excel, ChatGPT, Leonardo AI

Student Learning Outcomes (SLO): What You'll Learn along the Way
SLO #1: Describe the role of Python and other software in social media analytics.
SLO #2: Explain the role of the algorithmic social media environment in shaping advertising effectiveness.
SLO #3: Perform social media advertising research using Python and other software.
SLO #4: Evaluate the performances of both dictionary-based and machine learning-based sentiment analysis techniques.
SLO #5: Interpret research results and present them in a story-telling format.

Course Materials
Course materials are available on Canvas.

Textbook and Readings
There is no required textbook.

Grading Policy: How I'll Determine Your Grade
The overall grading system in this course is:

A = 93-100	C = 73-76
A- = 90-92	C- = 70-72
B+ = 87-89	D+ = 67-69
B = 83-86	D = 63-66
B- = 80-82	D- = 60-62
C+ = 77-79	F = 59 and below

More information on UF grading policy may be found at:
http://gradcatalog.ufl.edu/content.php?catoid=10&navoid=2020#grades
https://catalog.ufl.edu/ugrad/current/regulations/info/grades.aspx

Course Assessment

Weekly reflection posts	20 points
Class discussion	10 points
Project 1 (Team-based)	20 points
Project 2 (Team-based)	20 points
Project 3 (Team-based)	30 points
Total	**100 points**

General Class Policies

Cellphone: Silence your phone or turn it to airplane mode prior to entering the class.

Late Assignments –Unexcused late class assignments or projects will be penalized 10% of the assigned marks each day. However, a student who presents the instructor with a documented (i.e., written and verifiable, not oral) reason for an absence normally within a week will be given an opportunity to make up the work missed if this is feasible.

Incompletes – No incomplete grades will be issued except in extraordinary and well-documented circumstances.

Attendance Policy, Class Expectations, and Make-Up Policy
Excused absences must be consistent with university policies in the Undergraduate Catalog and Graduate Catalog and require appropriate documentation.

Formal Course Assessment: How You'll Know You're Learning

1. **Weekly Reflection Posts: (20 points)**
Given the workshop format of this course, your participation is critical. You should finish all your readings prior to class and be prepared to talk and contribute to class discussions. **Also, each week on Thursday (by 12:50 pm), you are required to post what you have read in that week and your opinions about the reading material on Canvas Discussion Forum (except for Week 1 and Week 16).**

Your posts will be evaluated on a 10-point scale (0 for poor, 10 for excellent), based on the following:
- Student ability to summarize the key ideas from the reading of the week.
- Student ability to raise questions on the reading of the week.

***Note:** Your weekly reflection post should contain **at least 150 words (if you are an undergraduate student) or at least 300 words (if you are a graduate student)**.

2. Class Discussion: (10 points)
Given the workshop 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.

Assignment Grading:
Your participation in class discussions will be evaluated by the instructor during lecture weeks on a 10-point scale, with 0 indicating no participation and 10 representing the most active participation. This evaluation will be based on three main criteria:

1. Active participation in reading/exercise discussions as well as discussions on course topics.
2. Responding to questions posed by the instructor or classmates.
3. Raising questions about the readings and course topics during class.

3. Projects (70 points)
There will be three team-based projects throughout the semester. Therefore, it is important for students to come to class on a regular basis.

Project 1: group presentation on sentiment analysis (due date: **October 22**) (20 points)
Project 2: group presentation on media exposure environment (due date: **November 5**) (20 points)
Project 3: group presentation on AI-generated content (due date: **December 3**) (30 points)

Grading will be based on:
   1) Team ability to run Python coding and/or other software to analyze data.
   2) Team ability to present sufficient research results to support claims.
   3) Team ability to organize information in an efficient and a story-telling way.
   4) Team ability to generate creative visuals.
   5) Team ability to deliver effective oral presentation.

***Note: If you are a graduate student, please add a discussion section in your project to discuss how the results shed light on any advertising/mass communication theory.

4. Peer Evaluation

You will be evaluated **<u>three times</u>** during the semester by your team members. This is not a popularity rating but an objective evaluation of the commitment and quality of your efforts and contributions as seen by your team members. An average for both evaluations over the course of the semester will be computed for each team member. The evaluation form will be provided at the appropriate time. All evaluations are strictly confidential.

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 60 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 42 points (60 * 70%) for all team-based assessments. Conversely, a team member with an average evaluation of 92% would secure the full 60 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 that evaluation period.**

Course Topic & Schedule: What You'll Be Doing

The lecture topics and relevant readings for each class are listed in the table below. Students are expected to have completed the assigned readings for the day BEFORE coming to class. **Topics and schedule are subject to change**.

Date	Topic	Readings	Class Work and Assignments
Week 1 August 22	Course Orientation and Programming in Python	How To Become an AI All Star, A Guide for Techies (https://www.forbes.com/sites/eliamdur/2024/02/05/how-to-become-an-ai-all-star-a-guide-for-techies/ /)	
Week 2 August 27	Variables and Data Types	Python Data Types (https://www.programiz.com/python-programming/variables-datatypes)	In-class: log into Google Colab via your Gmail and start coding
August 29	Variables and Data Types		In-class: log into Google Colab via your Gmail and start coding **Due**: weekly reflection post (reading assignment)
Week 3 September 3	Lists	Python Lists (https://www.geeksforgeeks.org/python-list/)	In-class: log into Google Colab via your Gmail and start coding
September 5	Lists		In-class: log into Google Colab via your Gmail and start coding **Due**: weekly reflection post (reading assignment)
Week 4 September 10	Dictionaries	Python Dictionary (https://www.programiz.com/python-programming/dictionary)	In-class: log into Google Colab via your Gmail and start coding
September 12	Dictionaries		In-class: log into Google Colab via your Gmail and start coding **Due**: weekly reflection post (reading assignment)
Week 5 September 17	For Loops	Python For Loop (https://www.programiz.com/python-programming/for-loop)	In-class: log into Google Colab via your Gmail and start coding

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September 19	For Loops		**Due**: weekly reflection post (reading assignment)
Week 6 September 24	Conditional Statements	Python if…else Statement (https://www.programiz.com/python-programming/if-elif-else)	In-class: log into Google Colab via your Gmail and start coding
September 26	Conditional Statements		In-class: log into Google Colab via your Gmail and start coding **Due**: weekly reflection post (reading assignment)
Week 7 October 1	Conditional Statements		In-class: log into Google Colab via your Gmail and start coding
October 3	Open a file in Python	Python read text file (https://www.pythontutorial.net/python-basics/python-read-text-file/)	In-class: log into Google Colab via your Gmail and start coding **Due**: weekly reflection post (reading assignment)
Week 8 October 8	Case Study 1: Emotional Reactions of Users toward a YouTube campaign		Introduction to the YouTube Data Tools
October 10	Case Study 1: Emotional Reactions of Users toward a YouTube campaign	10 Facts about Americans and YouTube	Review the Python code; get familiar with Pandas **Due**: weekly reflection post (reading assignment)
Week 9 October 15	Case Study 1: Emotional Reactions of Users toward a YouTube campaign	Facebook Updates Comment Ranking System to Reduce Reach of Commenting Baiting	Review Python code, interpret results, and understand fundamentals of comment ranking, sentiment analysis, and machine learning.
October 17	Hands-On Workshop (project 1)		Use Python for real-world insights. Utilize tools like ChatGPT. Compare sentiment analysis tools, evaluating their case study applicability. **Due**: weekly reflection post

			(reading assignment)
Week 10 October 22	**Presentations on Project 1**		**Due**: Project 1; Peer Evaluation 1
October 24	Case Study 2: Consumers' Media Exposure Environment	Many Turn to YouTube for Children's Content, News, How-To Lessons Pew Research Center	Discuss recommendation algorithm fundamentals. Analyze campaign effectiveness considering the recommendation algorithm's role. **Due**: weekly reflection post (reading assignment)
Week 11 October 29	Case Study 2: Consumers' Media Exposure Environment	TikTok Sheds Some Light on Why Videos Appear in Users' For You Feeds	Introduction to the YouTube Data Tools.
October 31	Hands-On Workshop (project 2)		Explore YouTube's recommendation algorithm intricacies. Grasp video connections and their platform-wide ripple effects in this workshop. **Due**: weekly reflection post (reading assignment)
Week 12 November 5	**Presentations on Project 2**		**Due**: Project 2; Peer Evaluation 2
November 7	Case Study 3: Content Generation and AI	How Generative AI Is Changing Creative Work	Explore AI's role in generating creative content on social media. **Due**: weekly reflection post (reading assignment)
Week 13 November 12	Case Study 3: Content Generation and AI	Photographers are mad that Instagram is labelling edited photos as 'made with AI' while ignoring AI generated images	Discuss human-AI collaboration and AGI.
November 14	Case Study 3: Content Generation and AI		**Due**: weekly reflection post (reading assignment)
Week 14 November 19	Hands-On Workshop (project 3)	Understanding the Legal and Regulatory Landscape of Generative AI	Discuss prompt engineering
November 21	Hands-On Workshop (project 3)		Generate keywords for ads and optimize the ads. Discuss legal and ethical issues of AI-generated content

			Due: weekly reflection post (reading assignment)
Week 15 November 26/28		**Happy Thanksgiving**	
Week 16 December 3	**Presentations on Project 3**		**Due: Project 3; Peer Evaluation 3**

University Honesty Policy
UF students are bound by The Honor Pledge which states, "We, the members of the University of Florida community, pledge to hold ourselves and our peers to the highest standards of honor and integrity by abiding by the Honor Code. On all work submitted for credit by students at the University of Florida, the following pledge is either required or implied: "On my honor, I have neither given nor received unauthorized aid in doing this assignment." The Honor Code (https://www.dso.ufl.edu/sccr/process/student-conduct-honor-code/) specifies a number of behaviors that are in violation of this code and the possible sanctions. Furthermore, you are obligated to report any condition that facilitates academic misconduct to appropriate personnel. If you have any questions or concerns, please consult with the instructor or TAs in this class.

Software Use
All faculty, staff, and students of the University are required and expected to obey the laws and legal agreements governing software use. Failure to do so can lead to monetary damages and/or criminal penalties for the individual violator. Because such violations are also against university policies and rules, disciplinary action will be taken as appropriate. We, the members of the University of Florida community, pledge to uphold ourselves and our peers to the highest standards of honesty and integrity.

Student Privacy
There are federal laws protecting your privacy with regards to grades earned in courses and on individual assignments. For more information, please see:
http://registrar.ufl.edu/catalog0910/policies/regulationferpa.html

Courser Evaluation
Students are expected to provide professional and respectful feedback on the quality of instruction in this course by completing course evaluations online via GatorEvals. Guidance on how to give feedback in a professional and respectful manner is available at https://gatorevals.aa.ufl.edu/students/. Students will be notified when the evaluation period opens, and can complete evaluations through the email they receive from GatorEvals, in their Canvas course menu under GatorEvals, or via https://ufl.bluera.com/ufl/. Summaries of course evaluation results are available to students at https://gatorevals.aa.ufl.edu/public-results/.

Accommodation
Students with disabilities who experience learning barriers and would like to request academic accommodations should connect with the disability Resource Center. Click here to get started with the Disability Resource Center. It is important for students to share their accommodation letter with their instructor and discuss their access needs, as early as possible in the semester.

Campus Resources:
Health and Wellness
U Matter, We Care:

If you or a friend is in distress, please contact umatter@ufl.edu or 352 392-1575 so that a team member can reach out to the student.

Counseling and Wellness Center: http://www.counseling.ufl.edu/cwc, and 392-1575; and the University Police Department: 392-1111 or 9-1-1 for emergencies.

Sexual Assault Recovery Services (SARS)
Student Health Care Center, 392-1161.

University Police Department at 392-1111 (or 9-1-1 for emergencies), or http://www.police.ufl.edu/.

Academic Resources

E-learning technical suppor*t*, 352-392-4357 (select option 2) or e-mail to Learning-support@ufl.edu. https://lss.at.ufl.edu/help.shtml.

Career Resource Center, Reitz Union, 392-1601. Career assistance and counseling. https://www.crc.ufl.edu/.

Library Support, http://cms.uflib.ufl.edu/ask. Various ways to receive assistance with respect to using the libraries or finding resources.

Teaching Center, Broward Hall, 392-2010 or 392-6420. General study skills and tutoring. https://teachingcenter.ufl.edu/.

Writing Studio, 302 Tigert Hall*,* 846-1138. Help brainstorming, formatting, and writing papers. https://writing.ufl.edu/writing-studio/.

Student Complaints Campus*:* https://www.dso.ufl.edu/documents/UF_Complaints_policy.pdf.

On-Line Students Complaints*:* http://www.distance.ufl.edu/student-complaint-process.