

## GENERIC ELECTIVES (GE-8b): Digital marketing and Social Media Analytics

### Credit distribution, Eligibility and Pre-requisites of the Course

Course title & Code	Credits	Credit distribution of the course			Eligibility criteria	Pre-requisite of the course
		Lecture	Tutorial	Practical/ Practice		
<b>GE8b: Digital Marketing and Social Media Analytics</b>	<b>4</b>	<b>3</b>	<b>0</b>	<b>1</b>	Pass in Class XII	Knowledge of HTML and Python Programming

#### Course Objective:

This Course provides introduction of various tools and technologies required to extract social media data. After completing this course, students will be able to execute end-to-end social media analytics projects and integrate them with existing business applications.

#### Course Learning Outcomes:

On successful completion of the course, students will be able to:

1. Understand the importance of data available in social media platforms.
2. Collections of data from various social media platforms like YouTube, Twitter etc. using API's and Python.
3. Data processing involving cleaning, structuring and analysis.
4. Case Study involving text mining and sentiment Analysis.
5. Development of complete social media recommendation system.

#### Syllabus

**Unit 1 Introduction:** Marketing in the Digital World, Introduction to Digital Marketing, Online Marketplace analysis, Data mining, Predicting and influencing strategies, Big data concepts.

**Unit 2 Online Macro Environment:** Introduction to Internet Technology, URL, Web page standards, Web Application frameworks and application servers, Approaches to develop secure systems.

**Unit 3 SEO and SEM:** Crawling, Indexing, Ranking, SEO tools, On page optimization and off page optimization. Advertisements in social media platforms, Paid search Marketing, Search engine Analytics.

**Unit 4 Social Media Analytics:** Role of email marketing, types of emails, email marketing objective, Build an automated email campaign, Analytics of Social Media Platforms.

**Unit 5 Analytics using Python:** learn to analyze marketing campaigns data, measure customer engagement, and predict how customer approaches to buy products, develop systems to crawl and predict.

#### Practical Exercise:

Q1. Go to a website that you visit regularly and access the source code of the page. (Right click on the page text and select View Source Code.)

1. Complete a search in the source code by pressing Ctrl F.
  - Does the web page include an H1?
  - Is the H1 the main page headline?
  - Does the H1 include a core message for the user?
  - Is there any sign that the H1 is optimized for searching (are there any keywords included in it)?
  - Is the site using the additional headings H2 through H6 ? Is it creating correct page and content structure?
0. Search for the title. It should be placed near the top of the page (<title> title text </title>). This is the meta title for the page.
  - Is the target keyword included in the title?
  - Is the title under 60 characters?
0. Search for the description. It should be placed near the top of the page (<meta-name="description" content="description text"/>). This is the meta description for the page.
  - Is there a description visible?
  - Is the target keyword included?
  - Is it under 160 characters?

Q2. Create an email marketing campaign using split testing. Send your email to a select number of email addresses. From here test subject lines, content, and sender details. Using this information, decide which split is performing better and why.

- Q3. Create an email marketing campaign for a leading Holistic Living App incorporating:
- Optimize your subject lines, preheader text, email content, CTA, and landing pages through A/B tests
  - Measure performance (open rate, CTR rate, response, and bounce rate)

Q4. You are the Social Media Analyzer for a Holistic Living App. You have been asked to prepare a comparative analysis of competitive brands in market to understand the branding value and user sentiments.

To develop the analysis, perform following:

- Extract all the posts of related apps permitted by the Facebook API
- Extract the metadata for each post: Timestamp, number of likes, number of shares, and number of comments
- Extract the user comments under each post and the metadata
- Process the posts to retrieve the most common keywords, bi-grams, and hashtags
- Process the user comments using the Alchemy API to retrieve the emotions
- Analyze all the results obtained from the preceding steps to derive conclusions

Q5. Perform the following on current trending twitter account and establish a case study:

- Fetching data from Twitter
- Cleaning of data
- Sentiment Analysis
- Customized Sentiment Analysis

### References:

1. Chaffey, D., & Ellis-Chadwick, F. (2022). Digital Marketing: Strategy, implementation and practice. Pearson.
2. Dodson, I. (2016). The Art of Digital Marketing: The definitive guide to creating strategic, targeted, and measurable online campaigns. Wiley.
3. Chatterjee, S., & Krystyanczuk, M. (2017). Python social media analytics analyze and visualize data from Twitter, YouTube, GitHub, and more. Packt.