

Subject Code	Subject Name	Credits
26CS509	SOCIAL MEDIA AND WEB ANALYSIS	04

Course Objectives

1. To introduce the basic concepts of social media platforms and web analytics
2. To understand the techniques for collecting and analysing social media data.
3. To study social network analysis, sentiment analysis, and web mining techniques.

To explore the applications of social media analytics in business, marketing, and decision making.

Learning Outcomes

1. Students will be able to analyse social media data and interpret web analytics metrics.
- Students will be able to apply analytical techniques to understand trends, user behavior, and online interactions.

Unit 1 - Introduction to Social Media and Web Analytics (12 Hrs.)

Introduction to Social Media-Data Collection and Web Data Mining Evolution of Social Media Platforms-Types of Social Media (Social Networks, Blogs, Microblogs, Media Sharing)-Concepts of Web Analytics-Importance of Social Media Analytics- Key Metrics in Web and Social Media Analysis

Unit 2 - Social Network Analysis (12 Hrs.)

Sources of Social Media Data-Web Crawling and Data Scraping-APIs for Social Media Data Collection-Introduction to Web Mining-Content Mining, Structure Mining, and Usage Mining-Data Preprocessing Techniques

Unit 3 - Sentiment Analysis and Text Mining (12 Hrs.)

Concepts of Social Networks-Graph Theory Basics-Nodes, Edges, and Network Structures-Centrality Measures (Degree, Betweenness, Closeness)-Community Detection-Visualization of Social Networks

Unit 4 - Introduction to Sentiment Analysis (12 Hrs.)

Natural Language Processing (NLP) Basics-Text Mining Techniques-Opinion Mining in Social Media-Machine Learning for Social Media Analysis-Tools and Libraries for Sentiment Analysis

Unit 5 - Applications and Ethical (12 Hrs.)

Issues in Social Media Analysis Marketing and Business Intelligence-Social Media Monitoring and Brand Analysis-Recommendation Systems-Fake News Detection-Privacy, Security, and Ethical Issues in Social Media-Future Trends in Social Media and Web Analytics

References:

1. Social Media and Web Analytics: Turning Insights Into Action in a Digital World, Deepa Gupta, Mukul Gupta, Publisher-PHI Learning.
2. Social Network data analysis, Charu C. Aggarwa, Springer.
3. Mining the Social Web: Data Mining Facebook, Twitter, LinkedIn, Instagram, GitHub, and More, Matthew A. Russell and Mikhail Klassen, O'Reilly Media.

