

Name of College: S. R. Luthra Institute of Management						
Faculty		Management		Program	Master of Business Administration (M.B.A.)	
Year		I		Version	2.0	
Semester		1		Effective From	July 2026	
Course Code	MMBA22102	Course Name	Business Analytics & Artificial Intelligence (BA&AI)			
Teaching Scheme				Examination Scheme		
Credits	Lecture (L)	Tutorial (T)	Practical (P)	CCE	SEE	Total
4	4	0	0	50	50	100

Course Outcomes:

CO	Students will be able to
CO1	Explain the concepts of business analytics.
CO2	Determine the use of Descriptive, Predictive, and Prescriptive Analytics for a given business situation.
CO3	Apply domain-specific and function-specific analytics techniques for a given business scenario.
CO4	Explain the fundamental concepts related to artificial intelligence.

Mapping Course Outcomes to Program Outcomes:

	PO1	PO2	PO3	PO4	PO5	PO6
CO1	3	3	---	2	---	---
CO2	3	3	---	2	2	---
CO3	3	3	---	3	2	2
CO4	3	2	---	2	---	---
CO5	3	3	---	3	2	2



Sr. No.	Module	Description	CO	Marks	Hours
1	I	Foundations of Business Analytics:	1	12	15
		• Introduction to business analytics • The role of analytics in decision making • Components of business analytics • Types of analytics • Benefits of business analytics • Challenges in implementation of business analytics			
		Working with Business Data:			
		• Common data sources • Types of data • Data quality • Preparing Data for Insights • Introducing big data: meaning and characteristics			
		Data Storage and Management:			
		• Introduction to data warehouse • Types of data warehouse • Importance of data warehouse			
2	II	Ethics and Security in Business Analytics:	1, 2	14	15
		• Ethical issues in business analytics • Ethical responsibilities of business professionals • Data security: Common security threats, CIA Triad model, tools and technologies			
2	II	Tools and Techniques of Business Analytics (meaning and applications):	1, 2	14	15
		Descriptive Analytics: • Data Summarizing Techniques: ○ Data aggregation functions (SUM, COUNT, AVERAGE, MIN, MAX) ○ Data filtering and sorting ○ Pivot tables • Data Visualization Techniques: ○ Introduction to dashboard ○ Data visualizing using charts • Business Reporting ○ Types of reports, Functions of reports			



		Predictive Analytics: • Regression Analysis • Classification Analysis • Time Series Analysis • Data Mining ◦ Meaning and process, ◦ Task – Clustering and Association			
3	III	Prescriptive Analytics: • Optimization Techniques ◦ Linear programming • Scenario Analysis ◦ What-if analysis • Decision Support Tools ◦ Goal seek analysis Domain-Specific Analytics (meaning and business applications): • Web Analytics • Text Analytics • Big Data Analytics Function-Specific Analytics (meaning and business applications): • Marketing Analytics ◦ Sales analytics, Customer analytics, Brand analytics • Financial Analytics ◦ Risk analytics, Portfolio analytics, Budgeting & Forecasting Analytics • HR Analytics ◦ Employee Performance Analytics, Employee Engagement Analytics, Attrition & Retention Analytics	1, 2, 3	12	15
4	IV	Artificial Intelligence (AI): • Introduction to Artificial Intelligence ◦ What is artificial intelligence? ◦ Evolution of artificial intelligence • Introduction to Machine Learning (ML) ◦ Types of machine learning ▪ Supervised learning, Unsupervised learning, Reinforcement learning • Introduction to Deep Learning (DL) ◦ Difference between AI, Machine Learning (ML), and Deep Learning (DL) Key Subfield of AI (Concept, Business Applications):	4	12	15



	• Natural Language Processing (NLP) • Computer Vision • Robotics / Automation			
	AI in Business Applications:			
	• Finance, Marketing, HR, Operations • Benefits of AI in decision-making • Challenges in AI implementation			

References:

Books:	
1.	Evans, J. R. (2020). <i>Business analytics: Methods, models, and decisions</i> (3rd ed.). Pearson.
2.	Sharda, R., Delen, D., & Turban, E. (2018). <i>Business intelligence, analytics, and data science: A managerial perspective</i> (4th ed.). Pearson.
3.	Goswami, S., Das, A. K., & Chakrabarti, A. (2024). <i>AI for everyone: a beginner's handbook for artificial intelligence</i> . Pearson India Education Services Pvt. Ltd.
4.	Hemachandran, K., & Rodriguez, R. V. (Eds.). (2024). <i>Artificial intelligence for business: An implementation guide containing practical and industry-specific case studies</i> . CRC Press.
5.	Sharda, R., Delen, D., & Turban, E. (2014). <i>Business intelligence: a managerial perspective on analytics</i> . Pearson.
6.	Kumar, U. D. (2017). <i>Business analytics: The science of data-driven decision making</i> . Wiley.
Newspapers / Magazines / Journals:	
1.	International Journal of Business Analytics
2.	International Journal of Business Analytics and Intelligence
3.	International Journal on Consumer and Business Analytics
4.	Analytics India – Magazine

