



**SANDIP**  
UNIVERSITY  
— UGC Recognised —

**Sandip University, Nashik (MS), India**  
At Post Mahiravani, Trimbak Road, Nashik-422213, Maharashtra  
<https://www.sandipuniversity.edu.in>

Name of School	School of Commerce and Management Studies
Name of the Department	Management
Name of the Programme	MBA Business Analytics

#### **Program Specific Outcomes (PSO)**

PSO1	Ability to employ commerce skills to enhance coordination and ensure effective organizational functioning.
PSO2	Ability to use knowledge gained for solving commerce & business problems.

#### **Program Outcomes**

PO1	Integrate the Knowledge and Skills and identify appropriate data analytic techniques to address business problems.
PO2	Apply data analytic techniques to solve problems in a variety of business contexts.
PO3	Design data models and present data to communicate information to business stakeholders using multiple forms of communication.
PO4	Recommend business solutions for various business domains by utilizing research (findings) and analytical skills.
PO5	Apply business analytics and business intelligence tools as a business process to support evidence-based decision-making.
PO6	Apply interpersonal, teambuilding, and leadership skills when participating in diverse environments.
PO7	Communicate the results of technical analysis to non-technical audiences.
PO8	Adhere to ethical and legal guidelines to ensure data security, integrity, and confidentiality when presenting analytical information.



PO9	Apply basic data and entrepreneurial strategies to identify and respond to new business opportunities.
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Course Outcomes				
Sr No	Semester	Course Code	Course Name	Course Outcomes Statement
1	I	PBA101	Managerial Economics	1. Understanding of basic concepts of quantitative techniques in management through linear programming
				2. Understanding and application of various methods of transportation and assignment problems to solve various issues of organization.
				3. Understanding of decision theory under certainty and uncertainty
				4. Understanding of concept of queuing theory.
				5. Understanding of network designing through various methods of network design.
2.	I	PBA102	Accounting and Finance For Managers	1. Understanding fundamentals principles of financial, cost and management accounting
				2. Understanding and interpretation of financial statements.
				3. Understanding of taking decisions using management accounting tools.
				4. Understanding of basic objectives of financial management.



				5. Understanding the Cost of Capital and Dividend Decision
3.	I	PBA103	Foundation of Data Science	1. Understanding to use the commonly used tools in Business Analytics.
				2. Understanding the Pandas library
				3. Understanding Data Wrangling
				4. Understanding Data Aggregation and Group operations
				5. Understanding Time Series Data Analysis
6.	I	PBA104	Data Management and warehousing	1. Understanding the knowledge of Data warehousing.
				2. Understanding the Data Warehouse Project and Business Intelligence systems.
				3. Understanding the implementation of Data Warehouse design
				4. Understanding the topic and make students understand Data Mining.
				5. Understanding nearest Neighbor and Clustering Techniques.
7.	I	PBA105	Quantitative Techniques for Business Decisions	1. Understanding of basic concepts of quantitative techniques in management through linear programming
				2. Understanding and application of various methods of transportation and assignment problems to solve various issues of organization.
				3. Understanding of decision theory under certainty and uncertainty
				4. Understanding of concept of queuing theory.



				5. Understanding of network designing through various methods of network design.
8.	I	PBA106	Organizational Behavior and Principles of Management	1. Understanding the subject Organization Behavior concepts. 2. Understanding the concept of organizational Behaviors & scope of organizational psychology 3. Understanding the concept of Organization & staffing 4. Understanding the concept of Motivation 5. Understanding the concept of Job satisfaction
9.	II	PBA201	Design Thinking	1. Making use of practical design thinking methods in every stage of your problem. 2. Applying design thinking to your problems in order to generate innovative and user centric solutions 3. Getting hands on experience 4. Making practical exposure of Design Thinking Process 5. Making use of practical use of Design Thinking in Various Sectors
10.	II	PBA202	Introduction to Business Analytics	1. Understanding purpose of Analytics, processes, value drivers and stages/types of analytics. 2. Understanding Business from Stakeholders perspective 3. Understanding End-to-end process mapping in a firm 4. Understanding Setting of Targets 5. Understanding Introduction to maturity



				stages in Analytics
11.	II	PBA203	Strategic Management	1. Understanding the need of the strategic management
				2. Analyzing vision mission and environments
				3. Understanding the theories applied in strategic management
				4. Understanding sustainability and quality control
				5. Understanding Strategy Evaluation and Implementation using various matrices
12.	II	PBA204	Production and Operation Management	1. Applying the basic of operations management in real life business situations
				2. Appreciating the various techniques that can be used for productivity improvement.
				3. Identifying the various types of process and operations system.
				4. Analyzing the pro and cons of various plant layouts.
				5. Analyzing the inspection types.
13.	II	PBA205	Digital Transformation	1. Understanding digital innovation
				2. Understanding Disruptive Innovation and Business Strategy
				3. Understanding Rapid Prototyping
				4. Understanding Entrepreneurship in digital transformation era
				5. Understanding Emerging technologies and



				prototyping
14.	II	PBA206	Legal Aspects of Business	1. Understanding various legal aspects of business.
				2. Understanding Law of Contract
				3. Understanding Law of sales of goods
				4. Understanding Company Law
				5. Understanding Laws of Insurance
15.	II	PB207	Data Visualization and Story Telling	1. Understanding the concepts of Data visualization
				2. Understanding Visualization of Structured data
				3. Understanding Visualization of Unstructured data
				4. Understanding Visual story telling
				5. Understanding Story telling framework
16.	II	PB211	Data Analysis using Python	1. Defining and demonstrate the use of built-in data structures "lists" and "dictionary".
				2. Designing and implementing a program to solve a real world problem.
				3. Making database connectivity in python programming language.
				4. Designing and implementing data analysis with Pandas
				5. Designing and implementing data visualization
17.	III	PB311	Data Visualization using Tableau	1. Understanding data and data visualization
				2. Understanding tableau for calculation and formatting visualizations



				3. Using manipulations and understanding visualization tools
				4. Understanding tableau to create dashboards and stories
				5. Distributing and publish visualization
18.	III	PBA301	Big Data Analytics	1. Big data analysis is likely to fuel the next wave of growth in productivity, innovation, and competition in the marketplace
				2. The capacity of businesses to harness the potential of big data and lead in the market will be primarily influenced by their ability to overcome significant challenges in efficiently managing big data, such as defining the business use case
				3. It will enable the participants to learn, design and build big data analytic solutions to solve business problems and help improve their data-driven decision-making skills.
				4. It will also help the learners understand various issues, challenges, and best practices in effectively managing data and analytics in organisations.
				5. The programme design,



				with the right mix of cases, lectures, and hands-on sessions, will allow the participants to effectively leverage advanced analytical methods and tools to solve business problems.
19.	III	PBA302	Machine Learning with Business Application	<ol style="list-style-type: none"> <li>1. Understanding the need of Machine Learning &amp; Statistics for solving various problems.</li> <li>2. Understanding the basic concepts of Supervised and Unsupervised learning.</li> <li>3. Applying regression analysis on the data available.</li> <li>4. Designing appropriate machine learning and apply on real world problems</li> <li>5. Optimizing different Machine Learning &amp; Deep Learning Techniques</li> </ol>
20.	IV	PB313	Data Analysis using Power BI	<ol style="list-style-type: none"> <li>1. Selecting appropriate menus and functions of Power BI.</li> <li>2. Showing how to do basic troubleshooting and fix mistakes most people make when working with Power BI.</li> <li>3. Using various functions of DAX, Execute pivot table analysis, common and powerful functions.</li> <li>4. Illustrating the use of the most commonly used data-manipulation commands in Power BI</li> <li>5. Inserting files from various sources and attractive dashboards</li> </ol>
21.	IV	PBA303	Artificial Intelligence for	<ol style="list-style-type: none"> <li>1. Demonstrating fundamental</li> </ol>





			Managers	<p>understanding of the history of artificial intelligence (AI) and its foundations</p> <p>2. Applying basic principles of AI in solutions that require problem solving, inference, perception, knowledge representation, and learning.</p> <p>3. Demonstrating awareness and a fundamental understanding of various applications of AI techniques in intelligent agents, expert systems, artificial neural networks and other machine learning models.</p> <p>4. Demonstrating proficiency developing applications in an 'AI language', expert system shell, or data mining tool.</p>
				5. Demonstrating proficiency in applying scientific method to models of machine learning.
22.	IV	PBA411	Project	<p>1. Know and apply research methods</p> <p>2. Write a research project</p> <p>3. Get hands on experience</p>