



GUJARAT TECHNOLOGICAL UNIVERSITY

Syllabus for Master of Business Administration (Part-Time), 3rd Semester

Subject Name: Business Analytics (BA)

Subject Code: 4539901

With effective
from academic
year 2019-20

1. Learning Outcomes:

Learning Outcome Component	Learning Outcome
Business Environment and Domain Knowledge (BEDK)	<ul style="list-style-type: none"> Develop domain knowledge of various technology and its application to facilitates managerial decision /MIS
Critical thinking, Business Analysis, Problem Solving and Innovative Solutions (CBPI)	<ul style="list-style-type: none"> Enhance capabilities for innovative use of I.T.
Global Exposure and Cross-Cultural Understanding (GECCU)	<ul style="list-style-type: none"> Understanding the significance of global platform for data retrieval/process among different business cultures of the world
Social Responsiveness and Ethics (SRE)	<ul style="list-style-type: none"> Understanding of ethics and prevention of fraud through technology, theft of data etc.
Effective Communication (EC)	<ul style="list-style-type: none"> Enable communication for data driven decision making
Leadership and Teamwork (LT)	<ul style="list-style-type: none"> Encourage cross functional collaboration to enhance efficiency and productivity.

2. **Course Duration:** The course duration is of **40 sessions of 60 minutes each.**

3. Course Contents:

Module No:	Module Content	No. of Sessions	70 Marks (External Evaluation)
I	<p>Business Intelligence:</p> <ul style="list-style-type: none"> Definitions and Examples in Business Intelligence Need, Features and Use of Business Intelligence (BI) BI Components <ul style="list-style-type: none"> Data Warehouse Business Analytics Business Performance Management User Interface <p>Business Analytics:</p> <ul style="list-style-type: none"> Introduction to Business Analytics (BA) – Need. Components (Business Context, Technology, Data Science). Types (Descriptive, Predictive and Prescriptive). Business Intelligence versus Business Analytics. Transaction Processing v/s Analytic Processing <ul style="list-style-type: none"> OLTP v/s OLAP OLAP Operations Data models for OLTP (ER model) and OLAP (Star & Snowflake Schema) 	10	18
II	<p>Types of Digital Data:</p> <ul style="list-style-type: none"> Definition, Sources, Storage and Characteristics of Structured, Unstructured and Semi Structured Data <p>Data Warehouse:</p>	10	18



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	<ul style="list-style-type: none"> • Definition, characteristics, framework • Data lake Business Reporting, Visual Analytics: <ul style="list-style-type: none"> • Definition, concepts • Different types of charts and graphs • Emergence of data visualization and visual analytics 		
III	Data Mining: <ul style="list-style-type: none"> • Concepts and applications • Data mining process Text & Web Analytics: <ul style="list-style-type: none"> • Text analytics and text mining overview • Text mining applications • Web mining overview • Social media analytics • Sentiment analysis overview Big Data Analytics: <ul style="list-style-type: none"> • Definition and characteristics of big data • Fundamentals of big data analytics 	10	17
IV	Business Performance Management: <ul style="list-style-type: none"> • Business performance management cycle • KPI, Dashboard Analytics in Business Support Functions: <ul style="list-style-type: none"> • Sales & Marketing Analytics • HR Analytics • Financial Analytics • Production and operations analytics Analytics in Industries: <ul style="list-style-type: none"> • Telecom, Retail, Healthcare, Financial Services 	10	17
V	Practical: Students should prepare a detailed report on applications of analytics in different industries.	---	(30 marks CEC)

4. Pedagogy:

- ICT enabled Classroom teaching
- Case study
- Practical / live assignment
- Interactive class room discussions

5. Evaluation:

Students shall be evaluated on the following components:

A	Internal Evaluation	(Internal Assessment- 50 Marks)
	• Continuous Evaluation Component	30 marks
	• Class Presence & Participation	10 marks
	• Quiz	10 marks
B	Mid-Semester examination	(Internal Assessment-30 Marks)
C	End –Semester Examination	(External Assessment-70 Marks)



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6. Reference Books:

No.	Author	Name of the Book	Publisher	Year of Publication / Edition
1	Ramesh Sharda, Dursun Delen, Efraim Turban	Business Intelligence: A Managerial Perspective on Analytics	Pearson	3 rd
2	R.N.Prasad and Seema Acharya	Fundamentals of Business Analytics	Wiley	2016
3	U. Dinesh Kumar	Business Analytics – The Science of Data Driven Decision Making	Wiley	2017
4	Anil Maheshwari	Data Analytics	McGraw Hill	2017
5	Jesper Thorlund & Gert H.N. Laursen	Business Analytics for Managers: Taking Business Intelligence Beyond	Wiley	Latest
6	Sahil Raj	Business Analytics	Cengage	Latest
7	James R. Evans	Business Analytics	Pearson	Latest

Note: Wherever the standard books are not available for the topic appropriate print and online resources, journals and books published by different authors may be prescribed.

7. List of Journals / Periodicals / Magazines / Newspapers / Web resources, etc.

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