



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 IntelligenceNeed, Features and Use of Business Intelligence (BI)BI Components<ul style="list-style-type: none">Data WarehouseBusiness AnalyticsBusiness Performance ManagementUser 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 OLAPOLAP OperationsData 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



GUJARAT TECHNOLOGICAL UNIVERSITY

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

Subject Name: Production and Operations Management (POM)

Subject Code: 4539902

With effective
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year 2019-20

1. Learning Outcomes:

Learning Outcome Component	Learning Outcome
Business Environment and Domain Knowledge (BEDK)	<ul style="list-style-type: none">Acquire the necessary knowledge and experience in order to recognize the production management and planning problems.
Critical thinking, Business Analysis, Problem Solving and Innovative Solutions (CBPI)	<ul style="list-style-type: none">Ability to analyse and select the most appropriate methods and tools for the solution of problems related to production planning, shop floor scheduling and inventory control.

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	Introduction of Production & Operation Management: <ul style="list-style-type: none">System and function view of organizations, scope, Evolution and future of production and operation management.Process design-different types of process with its merits and demerits, process classification based on order, process selection, different type of manufacturing process, process performance and evaluation etc.Product design; types of products and designing, evaluation of design	10	17
II	Facility location; (theoretical concept only) Plant Layout: <ul style="list-style-type: none">Different types of layout. Aggregate Production Planning (APP): <ul style="list-style-type: none">Objective, strategies and cost of APP, master production schedule, Rough cut capacity planning etc.(theoretical concept only) Material Requirement Planning (MRP) (theoretical concept only) Inventory Management (theory and numerical)	10	18
III	Operations scheduling: <ul style="list-style-type: none">Definition, Objectives, TypesSequencing (n-jobs on m machine) (theory and numerical)Queuing systems (Waiting Line Analysis) (theory and numerical)Line Balancing(theoretical concept only)Project management; Project scheduling by using network PERT/CPM, (theory and numerical)	10	18
IV	Quality management: <ul style="list-style-type: none">Definition, experts' views on quality.	10	17



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	<ul style="list-style-type: none"> • Dimensions of quality. • Cost of quality and quality cost audit. • Statistical process control, control charts (theory and numerical), Total quality management (TQM), Six sigma, ISO 9000 and other ISO series. • Lean and Just in Time production system (theoretical concept only) <p>Industrial safety</p>		
V	<p>Practical</p> <ul style="list-style-type: none"> • Students should visit manufacturing / service organizations and <ul style="list-style-type: none"> ○ Identify the production planning and control systems, procedures and techniques. For service organizations, they can learn about how services are produced and how existing capacity is matched with demand. ○ Identify operations scheduling in any system and suggest more efficient ways of doing work. ○ Understand the significance of existing plant or service layouts. ○ Identify materials and inventory management practices in organized and unorganized sectors. ○ Simulate a production capability / facility with the optimum use and application of concepts. 	---	(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)

6. Reference Books:

No.	Author	Name of the Book	Publisher	Year of Publication / Edition
1	Chase R. B., Jacobs, F. R., Aquilano, N. J. and Agarwal N. K.,	Operations Management for Competitive Advantage	TMH	Latest



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2	Kanishka Bedi	Production and Operation Management	Oxford	Latest
4	Roberta S. Russell, Bernard W. Taylor	Operations and Supply Chain Management	Wiley	Latest
5	Arun Kumar, N.MeenakshiP.	Production and Operation Management	Cengage	Latest
6	Heizer, Jay and Render, Barry	Operations Management	Pearson	Latest
7	Elwood S. Buffa and Rakesh K.Sarin	Modern Production and Operations Management	Wiley	Latest
8	David A. Collier, James R. Evans and Kunal Ganguly	Operation Management	Cengage	Latest
9	S. A. Chunawala, Dr. R. Patel	Production and Operations Management	Himalaya	Latest
10	Martin K. Starr	Production and Operation	Cengage	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 Production Economics
2. Journal of Production Research and Management
3. Journal of Operations Management



GUJARAT TECHNOLOGICAL UNIVERSITY

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

Subject Name: Research Methodology (RM)

Subject Code: 4539903

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year 2019-20

1. Learning Outcome:

Learning Outcome Component	Learning Outcome
Business Environment and Domain Knowledge (BEDK)	<ul style="list-style-type: none">Familiarize the students with the types of problems often faced by Business Organizations
Critical thinking, Business Analysis, Problem Solving and Innovative Solutions (CBPI)	<ul style="list-style-type: none">Understand the importance of systematic approach to problem solving
Global Exposure and Cross-Cultural Understanding (GECCU)	<ul style="list-style-type: none">Gain exposure to globally accepted theories and methodologies of conducting business research
Effective Communication (EC)	<ul style="list-style-type: none">Understanding the crucial aspects of effective communication and interpretation of research findings.

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	Business Research Fundamentals: Research – meaning and types of business research – basic, applied, comparative, absolute, problem solving, problem identifying, qualitative, quantitative, characteristics of good research. Hypothesis, Types of hypothesis – Descriptive, Relational – Correlational and Causal, null and alternate. Brief Introduction to Business Research Process	10	17
II	Steps in Business Research Process - I: 1. Problem Identification / Problem statement 2. Review of Literature (including citation and bibliography / references). 3. Research Questions & Research Objectives 4. Hypothesis formulation 5. Research Design: Exploratory Research Design: Difference between Qualitative and Quantitative Research. <i>Qualitative Research:</i> Observation, Focus Group, Depth Interview, Projective Techniques.	10	18
III	Conclusive Research Design: <i>Quantitative Research:</i> Descriptive research – survey, survey methods. Causal research – Experimentation – labs v/s	10	18



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	field experiments, with and without control, before and after. Steps in Business Research Process - II: 6. Sampling Design – Probabilistic and non-probabilistic sampling. 7. Sources of data – primary and secondary Measurement and Scaling. Validity and reliability. Questionnaire designing.		
IV	Steps in Business Research Process - III: 8. Data Preparation – preliminary questionnaire screening, editing, coding and data entry (using statistical software). 9. Research Writing: - Research Proposal Synopsis, Research Report	10	17
V	Practical: A group of two students (Maximum) has to work on a Minor Research Project on the topic selected from the beginning of the semester in line with all the steps of Research Design starting from Identification of Research Problem to Findings & Conclusion and has to submit a Report to the concerned faculty member.	---	(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)

6. Reference Books:

No.	Author	Name of the Book	Publisher	Year of Publication / Edition
1	Naval Bajpai	Business Research Methods	Pearson	Latest
2	Naresh Malhotra and Satyabhusan Dash	Marketing Research – An applied orientation	Pearson	Latest
3	Donald R. Cooper and Pamela S.	Business Research Methods	TMH	Latest



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	Schindler			
4	Zikmund Willium	Business Research Methods	Thomson	Latest
5	Uma Sekaran	Research methods for business: A skill building approach	Wiley India	Latest
6	Panneerselvam R.	Business Research Methods	John Wiley and Sons	Latest
7	D. K. Bhattacharyya	Research Methodology	Excel	Latest
8	J. K. Sachdeva	Business Research Methodology	Himalaya	Latest
9	Adithan Bhujange	Research Methodology for Management and social Science	Excel	Latest
10	Alan Bryman	Business Research Methods	Oxford University Press	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. Journal of Indian Business Research
2. International Journal of Statistics and Analysis
3. Sankhya – Indian Journal of Statistics
4. Economic Times
5. Financial Express
6. Business Standard
7. Economic & Political Weekly
8. Vikalpa



GUJARAT TECHNOLOGICAL UNIVERSITY

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

Subject Name: Entrepreneurship

Subject Code: 4539904

With effective
from academic
year 2019-20

1. Learning Outcome:

Learning Outcome Component	Learning Outcome
Business Environment and Domain Knowledge (BEDK)	<ul style="list-style-type: none">Understanding of the evolution of industries and economies and the role of the entrepreneur
Critical thinking, Business Analysis, Problem Solving and Innovative Solutions (CBPI)	<ul style="list-style-type: none">Understanding the components of a business planAbility to scan the environment and assess opportunities and threatsDevelop creativity and innovation in thought and action
Social Responsiveness and Ethics (SRE)	<ul style="list-style-type: none">Sincere consideration of the ethical and environmental issues and responsibilities which managers take into account when making decisions
Effective Communication (EC)	<ul style="list-style-type: none">Develop clarity of thought to be able to communicate ideas with passion and conviction
Leadership and Teamwork (LT)	<ul style="list-style-type: none">Inculcate the spirit and essence of an effective leader

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	Entrepreneurship: Concepts, Importance; Characteristics of a Successful Entrepreneur, Problems faced by Entrepreneurs, Myths and Mind-set, Theories & Types of Entrepreneur, Forms of business organizations (Sole Proprietorship, Partnership, HUF, Private limited, Public limited, LLP). Creativity, Innovation and Entrepreneurship, Gujarati Entrepreneur and Contribution to India and World Economy Introduction to international entrepreneurship, modes of entry.	8	14
II	Formalities For Setting Up of A Small Business Enterprise: Identifying The Business Opportunity; Growth of a Business Idea; Selection of a Project (Product/ Service Selection, Location Selection, Project Feasibility Study, Business Plan Preparation, Preparation of a Project Profile), Decide on the Constitution, Registration, Clearances from specific Departments, Arrange for Land, Arrange for Plant & Machinery, Arrange for Infrastructure, Prepare Project Report, Apply & Obtain Finance, Implement the Project & Obtain Final Clearances	12	21



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III	Understanding of Ecosystem & MSME: Introduction to Central – level Institutions, State –level Institutions, Other Institutions (NABARD, TCOs, SIDBI) supporting business enterprises for financial assistance, technical consultancy, marketing input and research & development support, Process of raising finance from Bank and Other Institutes Micro, Small, and Medium Enterprises (MSME): Concept, Role and Definitions of MSME, Growth & Development of MSME in India and Gujarat, Problems facing the MSME Sector	10	18
IV	Government Support for Entrepreneurship Development: Initiatives for Start-up India, Stand up India and Skill India, Government of Gujarat schemes for Start-up, Start-up and ecosystem, Stand-up India: Women and Minority Entrepreneurship. Ease of Doing Business (EoDB) – Overview, Ranking, Determinants of EoDB	10	17
V	Practical: Project/ presentation on any of the following; Survey of Entrepreneurs from local area Preparing a Business plan for dream business/project Identifying success stories of various Entrepreneurs, Case study on entrepreneurship Experience sharing with entrepreneurs by visiting industry, guest talks and live projects.	---	(30 marks CEC)

4. Pedagogy:

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- 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)

6. Reference Books:

No.	Author	Name of the Book	Publisher	Year of Publication / Edition
1	Poornima M. Charantimath	Entrepreneurship Development and Small Business Enterprises	Pearson	Latest Edition
2	P. C. Jain	Hand book for New entrepreneurs	Oxford University Press	Latest Edition



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3	Arya Kumar	Entrepreneurship: Creating and Leading an Entrepreneurial Organization	Pearson	Latest Edition
4	Donald F Kuratko and T V Rao	Entrepreneurship – A South-Asian Perspective	Cengage Learning	Latest Edition
5	Rajeev Roy	Entrepreneurship	Oxford	Latest Edition
6	Michael Schaper, Thierry Volery, Paull Weber and Kate Lewis	Entrepreneurship and Small Business	Wiley	Latest Edition
7	Robert D. Hisrich, Michael P Peters and Dean A Shepherd	Entrepreneurship	McGraw-Hill	Latest Edition

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. Harvard Business Review
2. Business India / Business Today / Business World, University News
3. The Journal Of Enterprenuership by SAGE Publisher, journals.sagepub.com/home/joe
4. The journal of Enterprenuership and Innovation in Emerging Economies by SAGE Publisher, journals.sagepub.com/home/eie.
5. International Journal of Enterprenuership and Small Business by inderscience Publishers, www.inderscience.com/ijesb
6. Vikalp Prabandhan