

GUJARAT TECHNOLOGICAL UNIVERSITY

MASTER OF BUSINESS ADMINISTRATION

Year – I (Semester – II) (W.E.F. Academic Year 2017-18)

Subject Name: BUSINESS ANALYTICS (BA)

Subject Code: __3529201

Subject Credits: 3

Total Marks: 150

1. Course Objectives:

- a) To equip the students with basic understanding of business analytics and its role within an organization.
- b) To provide sound domain knowledge of business analytics and its critical concepts
- c) To prepare students for business intelligence systems and applications of business analytics
- d) To gain an understanding of how managers use business analytics to formulate and solve business problems and to support managerial decision making.

2. Course Duration: The course duration is of **36 sessions of 75 minutes** each.

3. Course Contents:

| Module No. | Modules with its Contents/Chapters | No. of Sessions | Marks (out of 70) |
|------------|---|-----------------|-------------------|
| I | Introduction to Business Analytics (BA) – Need, Components, Types and Techniques (Descriptive, Predictive and Prescriptive); Key Purpose of Using IT in Business; Information Users and Their Requirements; Framework for Data Driven Decision Making; | 8 | 14 |
| II | Types of Digital Data – Definition, Sources, Storage and Characteristics of Structured, Unstructured and Semi-Structured Data; On Line Analytical Processing (OLAP) versus Online Transaction Processing (OLTP); Data Models for OLTP and OLAP | 10 | 21 |
| III | Definitions and Examples in Business Intelligence, Data Mining, Big Data, Web and Social Media Analytics, Machine Learning, Data Science, Data Lake; Various Perspectives of Managing Data; Need, Features and Use of Business Intelligence (BI); BI Component Framework; Business Intelligence versus Business Analytics | 10 | 21 |

| | | | |
|-----------|---|---|---------------------------------------|
| IV | Analytics in Business Support Functions – Human Capital Analytics, IT Analytics, Sales & Marketing Analytics; Analytics in Industries – Telecom, Retail, Healthcare; Analytical Application Development; Process for Designing and Developing Social Media Analytics Application | 8 | 14 |
| V | <p>Application:</p> <ul style="list-style-type: none"> Data Analytics through Spreadsheet Students should select Small & Medium Enterprise and perform an exercise for application of the concepts learned under the domain of Business Analytics. Student has to prepare a report and give the presentation in the class. | | (30 Marks of CEC Internal Evaluation) |

4. Suggested Case Studies:

| S. No. | Title of Case Study |
|--------|---------------------------------|
| 1. | Case: GoodLife HealthCare Group |
| 2. | Case: GoodFood Restaurants Inc. |
| 3. | Case: TenToTen Retail Stores |

5. Teaching Methods:

The course will use the following pedagogical tools:

- (a) Case discussions. (Appropriate cases may be used to teach all above modules)
- (b) Discussion on issues and techniques
- (c) Projects/Assignments/Quiz/Class Participation, etc.

6. Evaluation:

The evaluation of participants will be on continuous basis comprising of the following elements:

| | | |
|----------|---|---------------------------------|
| A | Continuous Evaluation Component (CEC) comprising of Projects/ Assignments/ Quizzes/ Individual or group Presentation/ Class participation/ Case studies etc | (Internal Assessment- 50 Marks) |
| B | Mid-Semester examination | (Internal Assessment-30 Marks) |
| C | End –Semester Examination | (External Assessment-70 Marks) |

7. Text Books:

| Sr. No. | Author | Name of the Book | Publisher | Year of Publication |
|---------|------------------------------|---|-----------|---------------------|
| 1 | R.N.Prasad and Seema Acharya | Fundamentals of Business Analytics | Wiley | 2016 |
| 2 | U. Dinesh Kumar | Business Analytics – The Science of Data-Driven Decision Making | Wiley | 2017 |

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.

8. Reference Books:

| Sr. No. | Author | Name of the Book | Publisher | Year of Publication |
|---------|-------------------------------------|--|-----------------------|---|
| 1. | Anil Maheshwari | Data Analytics | McGraw Hill Education | First edition (1 st July 2017) |
| 2. | Jesper Thorlund & Gert H.N. Laursen | Business Analytics for Managers: Taking Business Intelligence Beyond | Wiley | Latest Edition |
| 4. | Sahil Raj | Business Analytics | Cengage Learning | Latest Edition |
| 6. | James R Evans | Business Analytics | Pearson | Latest Edition |

9. Session Plan: (36 sessions of 75 minutes)

| Session Nos. | Topics to be covered |
|--------------|--|
| 1-2 | Introduction to Business Analytics (BA) – Need and Components |
| 3-5 | Introduction to Business Analytics (BA) –Types and Techniques (Descriptive, Predictive and Prescriptive); |
| 6-8 | Key Purpose of Using IT in Business; Information Users and Their Requirements; Framework for Data Driven Decision Making; |
| 9-11 | Types of Digital Data – Definition, Sources, Storage and Characteristics of Structured, Unstructured and Semi-Structured Data; |
| 12-15 | On Line Analytical Processing (OLAP) versus Online Transaction Processing (OLTP); |
| 16-18 | Data Models for OLTP and OLAP |
| 19-22 | Definitions and Examples in Business Intelligence, Data Mining, Big Data, Web and Social Media Analytics, Machine Learning, Data Science, Data Lake; |
| 23-25 | Various Perspectives of Managing Data; Need, Features and Use of Business Intelligence (BI); |
| 26-28 | BI Component Framework; Business Intelligence versus Business Analytics |
| 29-32 | Analytics in Business Support Functions – Human Capital Analytics, IT Analytics, Sales & Marketing Analytics; Analytics in Industries – Telecom, Retail, Healthcare; |
| 33-36 | Analytical Application Development; Process for Designing and Developing Social Media Analytics Application |
