

DHANALAKSHMI SRINIVASAN ENGINEERING COLLEGE(A)**PERAMBALUR-621212****COURSE PLAN**

Name of the Faculty	Mr.A.G.SIDDARD			
Designation/Department	ASSISTANT PROFESSOR/MBA			
Course Code/Name	P23BAT26 / BUSINESS ANALYTICS			
Year/Section/Department	I/-/MBA			
Credits Details	L:3	T:3	P:3	C:3
Total Contact Hours Required	45			

Syllabus:

UNIT I/ INTRODUCTION TO BUSINESS ANALYTICS (BA) Business Analytics – Terminologies – Process – Importance – Relationship with organizational Decision making – Analytics in decision making – BA for competitive advantage	No. of Periods – 9
UNIT II - MANAGEING RESOURCES FOR BUSINESS ANALYTICS Managing BA Personnel, Data and Technology. Organisational Structures aligning BA. Managing Information policy, data quality and change in BA.	No. of Periods – 9
UNIT III - DESCRIPTIVE ANALYTICS Introduction to Descriptive analytics – Visualising, and Exploring Data - Descriptive Statistics - Sampling and Estimation - Probability Distribution for Descriptive Analytics - Analysis of Descriptive analytics.	No. of Periods – 9
UNIT IV - PREDICTIVE ANALYTICS Introduction to Predictive analytics - Logic and Data Driven Models - Predictive Analysis Modelling and procedure - Data Mining for Predictive analytics. Analysis of Predictive analytics.	No. of Periods - 9
UNIT V - PRESCRITIVE ANALYTICS Introduction to Prescriptive analytics - Prescriptive Modelling – Non-Linear Optimisation - Demonstrating Business Performance Improvement.	No. of Periods – 9

OBJECTIVE:

Learn to

- use business analytics for decision making
- to apply the appropriate analytics and generate solutions
- Model and analyse the business situation using analytics.

Reference Book:

REFERENCES

- R1.** Marc J. Schniederjans, Dara G. Schniederjans and Christopher M. Starkey, " Business Analytics Principles, Concepts, and Applications - What, Why, and How" , Pearson Ed, 2014
- R2.** Christian Albright S and Wayne L. Winston, "Business Analytics - Data Analysis and Decision Making", Fifth edition, Cengage Learning, 2015.
- R3.** James R. Evans, "Business Analytics - Methods, Models and Decisions", Pearson Ed, 2012.

Website:

- W1:** <https://onlinedegrees.scu.edu/media/blog/introduction-to-business-intelligence-and-analytics>
(Topic 02)
- W2.** <https://online.hbs.edu/blog/post/importance-of-business-analytics> **(Topic.No:5)**
- W3.** <https://www.heavy.ai/technical-glossary/business-analytics> **(Topic.No:11)**
- W4.** https://shire.science.uq.edu.au/CONS7008/_book/estimation-and-descriptive-statistics.html
(Topic.no:23)
- W5.** <https://www.ibm.com/topics/predictive-analytics> **(Topic.No:24)**
- W6.** <https://www.analyticsvidhya.com/blog/2019/05/practical-introduction-prescriptive-analytics/>
(Topic.No:25)

Course Plan:

Topic Number	Topic	Reference Detail	Page Number	Mode of teaching	Number of Periods Required	Cumulative Period
UNIT I						
1	Business Analytics	R3	9-9	BB	1	1
2	Terminologies	W1	Web	PPT	1	2
3	Process	R3	12-13	BB	1	3
4	Importance	R3	121-125	BB	1	4
5	Relationship with organizational Decision making	W2	Web	PPT	1	5
6	Tools of Business Analytics	R3	236-238	BB	1	6
7	Challenges of Business Analytics	R3	234-236	BB	1	7
8	Business Analytics for Competitive Advantage	R3	321-324	BB	1	8
9	Ways to achieve CA through BA	R3	328-331	BB	1	9
Outcome of Unit I:						
CO1 : Know the benefits of Business Analytics, process, types, Terminologies and it's Benefits.						
UNIT II						
10	Managing BA Personnel, and	R3	154-157	BB	1	10
11	Skills Required for BA Personnel	W3	Web	PPT	1	11
12	Roles of BA Personnel	R3	228-233	BB	1	12
13	Key Responsibilities of BA Personnel	R3	236-239	BB	1	13
14	Data quality	R3	468-469	BB	1	14
15	Data and Technology.	R3	471-473	BB	1	15
16	Organisational Structures aligning BA.	R3	475-477	BB	1	16

17	Managing Information policy	R3	479-481	BB	1	17
18	Change in BA.	R3	469-470	BB	1	18

Outcome of Unit II:

CO2: Understand the process of managing the resources for Business Analytics.

UNIT III

19	Introduction to Descriptive analytics	R3	353	BB	1	19
20	Visualising	R3	354-355	BB	1	20
21	Exploring Data	R3	361-363	BB	1	21
22	Descriptive Statistics	R3	364-365	BB	1	22
23	Sampling	W4	Web	PPT	1	23
24	Estimation	W5	Web	PPT	1	24
25	Probability Distribution	W6	Web	PPT	1	25
26	Probability Distribution for Descriptive Analytics	W7	Web	PPT	1	26
27	Analysis of Descriptive analytics.	W8	Web	PPT	1	27

Outcome of Unit III:

CO3: Understand the Descriptive Analytics technique.

UNIT IV

28	Introduction to Predictive analytics	R3	479-481	BB	1	28
29	Logic and Data Driven Models	R3	482-484	BB	1	29
30	Predictive Analysis Modelling	R3	484-485	BB	1	30
31	Predictive Analysis Modelling procedure		487-505	BB	1	31
32	Principles of Predictive Models	R3	489-491	BB	1	32
33	Types of Predictive		492-494	BB	1	33

	Models					
34	Advantage and Limitations of Predictive Models	R3	495-497	BB	1	34
35	Data Mining for Predictive analytics	R3	497-499	BB	1	35
36	Analysis of Predictive analytics.	R3	500-504	BB	1	36
Outcome of Unit IV: CO4: Understand The Predictive Analytics Technique.						
UNIT V						
37	Introduction to Prescriptive analytics	R3	561-562 562-563	BB	1	37
38	Prescriptive analytics Techniques	R3	564-566	BB	1	38
39	Application of Prescriptive Analytics	W9	Web	PPT	1	39
40	Prescriptive Modelling	R3	279-280	BB	1	40
41	Types of Prescriptive Analytics	R3	239-243	BB	1	41
42	Non-Linear Optimisation	R3	522-523	BB	1	42
43	Pro's and Con's of Optimisation in Prescriptive Analytics	R3	415-418	BB	1	43
44	Heuristic Rule based Techniques	R3	432-435	BB	1	44
45	Demonstrating Business Performance Improvement.	R3	425-427	BB	1	45
Outcome of Unit V: CO5: Understand The Prescriptive Analytics Technique.						

Course Outcome:

At the end of course:

Students should be able to do:

CO1: Know the benefits of Business Analytics, process, types, Terminologies and it's Benefits.

CO2: Understand the process of managing the resources for Business Analytics.

CO3: Understand the Descriptive Analytics technique.

CO4: Understand The Predictive Analytics Technique.

CO5: Understand The Prescriptive Analytics Technique.

Course Outcome Vs Program Outcome Mapping:

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PSO1	PSO2
CO 1	✓				✓		✓		✓	
CO 2		✓		✓	✓	✓				✓
CO 3		✓		✓			✓		✓	
CO 4	✓		✓		✓			✓		
CO 5		✓		✓			✓			✓

Assignment:**Assignment I**

Batch Details	Register Number	Total Number	Mode of Assignment Written/Seminar/ PPT	Topics
Batch 1	810425631001 to 14	13	Written	1. The Scope and Need of Business Analytics 2. Components of Business Analytics. 3. Types of Business Analytics.
Batch 2	810425631015 to 28	13	Seminar	1. Explain the Terminologies of Business Analytics 2. Describe the Process of Business Analytics 3. Describe the Importance of Business Analytics
Batch 3	810425631029 to 041	14	PPT	1. What are the Roles of Business Analytics in Decision Making 2. How to Manage Business Analytics Personnel 3. Roles and Responsibilities of Business Analytics Personnel

Assignment II

Batch Details	Register Number	Total Number	Mode of Assignment Written/Seminar/ PPT	Topics
Batch 1	810425631001 to 14	13	Seminar	1. Discuss the Main Functions of Descriptive Analysis. 2. What are the Advantages and Disadvantages of Business Analytics. 3. Distinguish between Mean, Median and Mode and what are the advantages and Disadvantages of each.
Batch 2	810425631015 to 28	13	PPT	1. Explain the Standard Deviation State its Calculations Methods 2. Define Addition and Multiplication theorems of Probability 3. Describe the Distinguish between Karl Pearson's and Bowley's Measure of Skewness, Which one you prefer and Why?
Batch 3	810425631029 to 041	13	Written	1. Explain the steps in Predictive analytics procedure. 2. State the Principles of Predictive analytics model and explain its types 3. Explain the Components of Data Mining.

Assignment III

Batch Details	Register Number	Total Number	Mode of Assignment MCQ/Seminar/PP T	Topics
Batch 1	810425631001 to 14	13	PPT	<p>1. Discuss how the Business Analytics Provide Improvement to Business Performance, With your own Example.</p> <p>2. What are the types of Prescriptive Modeling. What are the Pros and Cons Rule-Based Technique for Prescriptive analytics</p> <p>3. What do you mean by Non-Linear optimisation and discuss its application.</p>
Batch 2	810425631015 to 28	13	Written	<p>1. Pros and Cons of Prescriptive Analytics</p> <p>2. Note on Prescriptive Modelling</p> <p>3. Discuss how the Business Analytics Provide Improvement to Business Performance, With your own Example.</p>
Batch 3	810425631029 to 041	13	Seminar	<p>1. Discuss the Applications and benefits of Prescriptive Analytics.</p> <p>2. Explain Selecting and Developing and optimization shipping model</p> <p>3. Discuss how the Business Analytics Provide Improvement to Business Performance, With your own Example.</p>

Submission Details:

Phase 1(Before AT 1)		Phase 2 (Before AT 2)		Phase 3 (Before AT 3)	
Assignment 1	SIM 1	Assignment 2	SIM 2	Assignment 3	SIM 3

Prepared By



(Mr.A.G.SIDDARD)

Verified By



(HOD MBA)

Approved By



PRINCIPAL

Submission Details:

Phase 1(Before AT 1)		Phase 2 (Before AT 2)		Phase 3 (Before AT 3)	
Assignment 1	SIM 1	Assignment 2	SIM 2	Assignment 3	SIM 3

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