

M.Sc. Computer Science Syllabus Second Year (2019-24) (Sem - IV)
Business Intelligence

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| Semester IV | Subject Code: MSE41902 | Lectures: 60 |
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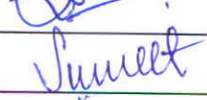
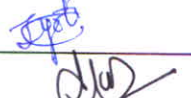




Objectives:

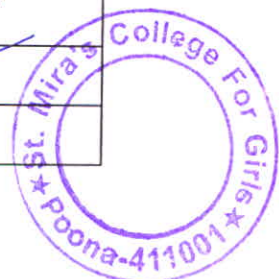
The syllabus aims in equipping students with,

- the role of BI in enterprise performance management and decision support.
- the applications of data mining and intelligent systems in managerial work.
- data warehousing and online analytical processing (OLAP) concepts, including dimensional modeling, star and snowflake schemas, attribute hierarchies, metrics, and cubes.
- data analysis and reporting using an available BI software.

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| Unit 1: Introduction to Business intelligence | 14 |
| Chapter 1 : Introduction to Business intelligence <ul style="list-style-type: none"> • Definition and History of BI, • Transaction processing versus analytical processing, • BI implementation , • Major tools and techniques of BI | 04 |

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| Chapter 2 : Data warehousing <ul style="list-style-type: none"> • Definition and concepts • Data warehouse architecture • ETL process, data warehouse development • Top down vs. Bottom up, Data Mart vs. EDW • Implementation issues, • Real-time data warehousing | 10 |
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| Sr. No. | BOS member | | Sign |
|---------|------------------------|------------------|---|
| 1 | Dr. Razak Sayyed | Subject Expert |  |
| 2 | Prof. Abhijit Sathe | Subject Expert |  |
| 3 | Prof. Sonali Deshmukh | Subject Expert |  |
| 4 | Mr. Sumeet Kakroo | Industry Expert |  |
| 5 | Ms. Jyoti Sharma | Alumni |  |
| 6 | Prof. Ashwini Kulkarni | Chairman |  |
| 7 | Prof. Swati Pulate | Internal Faculty |  |
| 8 | Prof. Smita Borkar | Internal Faculty |  |



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| Unit 2: Business performance management | 24 |
| Chapter 3 : Business performance management | 14 |
| <ul style="list-style-type: none"> • Key performance indicators and operational metrics • Balanced scorecard • Six Sigma • Dashboards and scorecards | |
| Chapter 4 : Data Mining for Business Intelligence | 10 |
| <ul style="list-style-type: none"> • Data mining process • Data mining methods • ANN for Data Mining | |

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| Unit 3: Text and Web mining and Integration and emerging trends | 18 |
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| Chapter 5 - Text and Web mining for Business intelligence | 8 |
| <ul style="list-style-type: none"> • Text mining Applications • Process and Tools • Web content • structure and usage mining | |
| Chapter 6 : BI implementation , Integration and emerging trends | 10 |
| <ul style="list-style-type: none"> • Implementing BI, BI Application Life Cycle • Connecting BI to Enterprise systems • On- demand BI, Issues of legality • privacy and Ethics • Emerging topics in BI • Social Networking and BI, RFID and BI | |


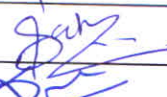
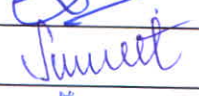





*Contact hours=04

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| 8 | Prof. Smita Borkar | Internal Faculty | |



Reference Books:

1. EfraimTurban, Ramesh Sharda, Dursun Delen, and David King:
Business Intelligence: A Managerial Approach, 2nd Edition, PEARSON
2012
ISBN-10: 0-13-610066-X
ISBN-13: 978-0-13-610066-9
2. Simon Miller, William Hutchinson :Oracle Business Intelligence Applications,
McGraw Hill Education 2013
ISBN-10: 93-5134-153-4
ISBN-13: 978-93-5134-153-6

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