20IT7403 A - BUSINESS INTELLIGENCE

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| **Course Category:** | | Programme Elective VI | | | | | | **Credits:** | | | | | | | 3 | | | |
| **Course Type:** | | Theory | | | | | | **Lecture-Tutorial-Practice:** | | | | | | | 3-0-0 | | | |
| Prerequisites: | | 20IT5404A - Data Mining | | | | | | **Continuous Evaluation:** | | | | | | | 30 | | | |
|  | | | | | | | | **Semester end Evaluation:** | | | | | | | 70 | | | |
| **Total Marks:** | | | | | | | 100 | | | |
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| **Course Outcomes** | Upon successful completion of the course, the student will be able to: | | | | | | | | | | | | | | | | | |
| CO1 | | Identify the objectives and practices for deploying a business intelligence (BI) program | | | | | | | | | | | | | | | |
| CO2 | | Apply processes to transform an organization’s data into actionable knowledge. | | | | | | | | | | | | | | | |
| CO3 | | Analyze BI program, from the value of information to the actual use of discovered knowledge. | | | | | | | | | | | | | | | |
| CO4 | | Interpret a behavioral model to assess the behavior of the customer. | | | | | | | | | | | | | | | |
| **Contribution of Course Outcomes towards achievement of Program Outcomes**  **(1-Low, 2-**  **Medium, 3- High)** |  | | P  O 1 | P  O 2 | P  O 3 | P  O 4 | P  O 5 | | P  O 6 | P  O 7 | P  O 8 | P  O 9 | P  O 10 | P  O 11 | | P  O 12 | PS O 1 | PS O 2 |
| CO1 | | 1 |  |  |  |  | |  |  |  |  |  |  | |  | 1 |  |
| CO2 | |  | 1 | 2 |  |  | |  |  |  |  |  |  | |  | 1 | 1 |
| CO3 | |  | 2 | 2 |  |  | | 2 |  |  |  |  |  | |  | 2 | 1 |
| CO4 | |  |  | 2 | 2 | 3 | |  |  | 2 |  |  |  | |  | 2 | 1 |
| **Course** | **UNIT I** | | | | | | | | | | | | | | | | | |
| **Content** | **Business Intelligence and Information Exploitation-**Improving the Decision- | | | | | | | | | | | | | | | | | |
|  | Making Process, A Business Intelligence Program, Business Intelligence and | | | | | | | | | | | | | | | | | |
|  | Program Success, The Analytics Spectrum, Taming the Information Explosion. | | | | | | | | | | | | | | | | | |
|  | **The Value of Business Intelligence-**Value Drivers and Information Use**,** | | | | | | | | | | | | | | | | | |
|  | Performance Metrics and Key Performance Indicator, Using Actionable | | | | | | | | | | | | | | | | | |
|  | Knowledge**,** Horizontal Use Cases for Business Intelligence**,** Vertical Use Cases | | | | | | | | | | | | | | | | | |
|  | for Business Intelligence | | | | | | | | | | | | | | | | | |
|  | **UNIT II** | | | | | | | | | | | | | | | | | |
|  | **Planning for Success-** Introduction, Organizational Preparedness for Business | | | | | | | | | | | | | | | | | |
|  | Intelligence and Analytics, Initial Steps in Starting a Business Intelligence | | | | | | | | | | | | | | | | | |
|  | Program, Bridging the Gaps between Information Technology and the Business | | | | | | | | | | | | | | | | | |
|  | Users, Knowing the Different Types of Business Intelligence Users, Business | | | | | | | | | | | | | | | | | |
|  | Intelligence Success Factors: A Deeper Dive, More on Building Your Team, | | | | | | | | | | | | | | | | | |
|  | Strategic Versus Tactical Planning | | | | | | | | | | | | | | | | | |
|  | **Developing Your Business Intelligence Roadmap-** The Business Intelligence and Analytics Spectrum, The Business Intelligence Roadmap: Example, Planning the Business Intelligence Plan. | | | | | | | | | | | | | | | | | |
|  | **UNIT III**  **The Business Intelligence Environment-** Aspects of Business Intelligence and Analytics Platform and Strategy, The Organizational Business Intelligence  Framework, Services and System Evolution Business Processes and Information Flow- Analytical Information Needs and Information Flows, Information Processing and Information Flow, The Information Flow Model.  **Data Requirements Analysis**- Introduction, Business Uses of Information,  Metrics: Facts, Qualifiers and Models, Data Requirements Analysis. | | | | | | | | | | | | | | | | | |
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|  | **UNIT IV**  **Data Profiling-** Establishing Usability of Candidate Data Sources, Data Profiling Activities, Attribute Analysis, Relationship Analysis  **Deriving Insight from Collections of Data-** Introduction, Customer Profiles and Customer Behavior, Customer Lifetime Value, Demographics, Psychographics, Geographics, Behavior Analysis.  **Case Study :** Health care : Monitoring business process performance permeates all aspects of quality of care | | | | | | | | | | | | | | | | | |
| **Text books and Reference books** | **Text Books:**  [1]. Business Intelligence: The Savvy Managers Guide, David Loshin, The Morgan Kaufmann Series,2nd edition,2013.  **Reference Books:**  [1]. Business Intelligence Roadmap – The Complete Project Lifecycle of Decision-Support Apps ,Larissa T. Moss & Shaku Atre, ,2015  [2]. Business Intelligence Guidebook: From Data Integration to Analytics  , Rick Sherman,1st edition,2018 | | | | | | | | | | | | | | | | | |
| **E-resources and other digital material** | 1. Need for Data Warehouse & Business Intelligence, Microsoft Business Intelligence,   https://freevideolectures.com/course/3635/microsoft-business-intelligence/11   1. Business Analytics & Text Mining Modeling Using Python, Prof.Gaurav Dixit, Department of Management, IT Roorkee, https://nptel.ac.in/courses/110/107/110107092/   Business Analytics & Intelligence, IIM Bangalore, https://iimb.ac.in/eep/product/259/Business-Analytics-Intelligence | | | | | | | | | | | | | | | | | |