



LLOYD BUSINESS SCHOOL

***Course Title: Powering Decision Making through Data Science
and Analytics***

INDUSTRY INTEGRATED CERTIFICATION COURSE

LLOYD BUSINESS SCHOOL in Collaboration with Training Partner 'V3Solutions'
8/7/2020



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Industry Integrated Certification Course

Powering Decision Making through Data Science and Analytics

About the Course

DATA is the next business asset which is essential for business growth and integration. Data driven businesses are the need of the hour. Now with decision making being no longer based on intuition but intelligence, understanding data is the necessary science every professional needs to proficient in.

Business Intelligence defined as the intelligence to mine data from huge pool of database, is one of the critical methodologies which help to comprehend effective decision making. Power BI has been gaining popularity for offering cutting edge tools that help transform an organization's data into rich visuals and offer a panoramic view of the business to users helping them gauge updates in real time.

This course helps you to build your abilities to synthesize data and develop into efficient business models. The course is a comprehensive design which introduces data science, modeling, statistics, and visualization to act as business developers in organizations. The course is integrated with Industry and provides hands on lab training for successful project executions during the training interface.

Course Benefits

- Learn about basics in data science
- Know how into foundations in statistics
- Transform the business data into visualizations
- Learning R PROGRAMMING
- Uncover Business Modeling Techniques
- Hands on Lab Training
- Tool based Training like IBM Cognos
- Capstone project execution

Who Should Take this Course?

- Students aspiring for career in Analytics
- Functional Managers and Experts
- Business & Data Analysts
- Entrepreneurs
- BI professionals
- Professionals working in MIS and operations

Detailed Course

Course : Data Science and Business Intelligence	Areas	Delivery Hours
Module 1: Fundamentals of Data Science		6hrs
1.1 Introduction to Data Science	<ol style="list-style-type: none"> 1. Data Science and its meaning 2. Applications of Data Science 3. Scope of Data Science 4. Data science tools and methodologies 	2hrs
1.2 Introduction to Data and Structures	<ol style="list-style-type: none"> 1. Data and types 2. Data warehouses and architecture 	2hrs
1.3 Introduction to Data Science Methodology	<ol style="list-style-type: none"> 1. Business Understanding 2. Analytic Approach 3. Data Compilation 4. Data Preparation 5. Data Modelling 6. Model Evaluation 7. Model Deployment and Feedback 	2hrs
Module 2 Introduction to Statistics		10hrs
2.1 Introduction to Statistics	<ol style="list-style-type: none"> 1. Welcome to Statistics 2. Data visualization 3. All about data 4. SPSS Statistics 5. SPSS Statistics in 5 minutes 	2hrs
2.2 Basics in Statistics	<ol style="list-style-type: none"> 1. Types of data 2. Measures of dispersion 3. Mean, median, mode 4. Statistics by data type 5. Probability 	3hrs

2.3 Summarizing Data	<ol style="list-style-type: none"> 1. Statistics by groups 2. Visualization of group statistics 3. Pivoting 4. Cross-tabulations 5. Correlation 	3hrs
2.4 Data Visualization using SPSS	<ol style="list-style-type: none"> 1. Visualization fundamentals 2. Descriptive and statistical charts 3. Scatterplots 4. Statistical charts 5. Time series charts 	2hrs
Module 3 R Fundamentals		14hrs
3.1 Data Visualization Using R	<p>Basic Visualization Tools :</p> <ol style="list-style-type: none"> 1. Bar Charts 2. Histogram 3. Pie Charts 4. Scatter Plots 5. Line Plots 	4hrs
3.2 Special Visualization Tools	<ol style="list-style-type: none"> 1. Word Clouds 2. Radar Charts 3. Waffle Charts 4. Box Plots 	4hrs
3.3 Insert Maps in R	<ol style="list-style-type: none"> 1. Inserting Maps in R 	1hrs

3.4 Data Analysis with R	<ol style="list-style-type: none"> 1. R and Relational Databases 2. Connecting to Relational Databases using RJDBC and RODBC 3. Database Design and Querying Data 4. Modifying Data and Using Stored Procedures 5. In-Database Analytics with R 	5hrs
Module 4 Data Visualization with IBM Cognos		5hrs
4.1 Data Visualization using Tool	<ul style="list-style-type: none"> • Introduction to IBM Cognos as visualization tool • Dashboards • Exploration • Formatting and basic calculations • Conditional formatting • Creation of queries and filters • Prompt creation • Graphs and visual tools 	5hrs
Module 5 Applications of Data visualization	<p>Cases and discussions</p> <p>Group Project Presentation</p>	5hrs
TOTAL		40hrs

Learning outcomes

On successful completion of the course students will be able to:

1. Describe the concepts and components of Business Intelligence (BI).
2. Critically evaluate use of BI for supporting decision making in an organisation.
3. Understand and use the technologies and tools that make up BI (e.g. Data warehousing, Data reporting and use of online analytical processing (OLAP)).
4. Understanding of IBM Cognos for hands on experience for project executions.

References

1. Successful Business Intelligence, Second Edition: Unlock The Value Of BI & Big Data authored by Cindi Howson
2. Business Intelligence Roadmap: The Complete Project Lifecycle For Decision-Support Applications authored by Larissa T. Moss & Shaku Atre
3. Business Intelligence and Analytics: Systems for Decision Support (10th Edition) authored by Ramesh Sharda, Dursun Delen and Efraim Turban

Websites

<https://www.ibm.com/in-en/analytics/business-analytics>

<https://community.ibm.com/community/user/businessanalytics/home>