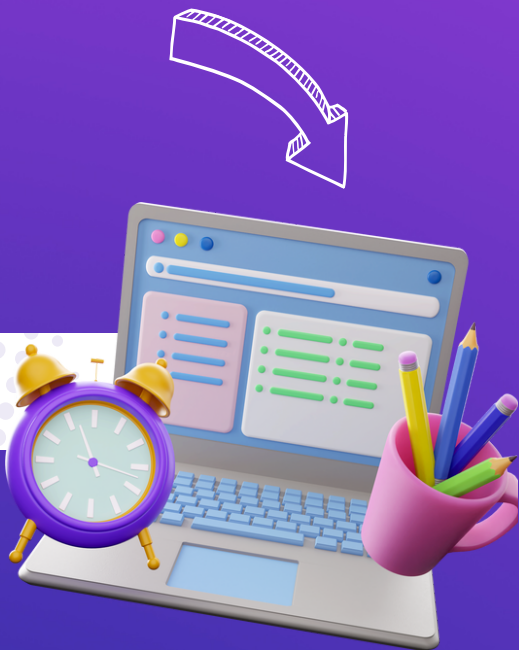# DATA
ANALYTICS MASTERS
THE ULTIMATE ROAD TO SUCCESS

SYLLABUS

Zep Analytics

About Us

Zep Analytics is an AI-driven EdTech Company focused on providing quality education in the form of pre-recorded & online boot camps on the latest technologies such as Data Science, Machine Learning, AI, Data Analytics, and many more. Apart from that, we also have many unique features on the platform such as a reward point system that can provide incentives to our users based on their activities.
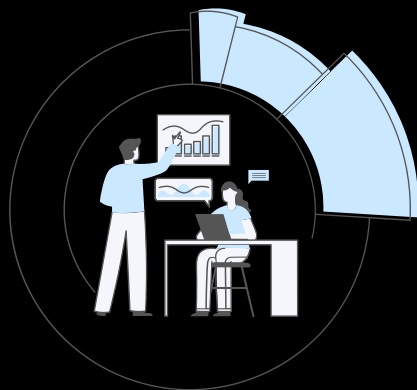
OUR VISION

Our vision is to bridge the gap between career expectations and reality via innovative teaching approaches.

TEACHING BY EXPERTS

Industry experts in data science, machine learning, and deep learning with multiple years of corporate as well as teaching experience.

DATA ANALYTICS MASTERS 2024

Features:

✓ Pre-Recorded Contents
✓ Course Completion Certificate
✓ 1 Month Internship Certificate*
✓ Knowledge on end to end Data Analytics
✓ Guidance & Mentorship from Satyajit Pattnaik & his team.
✓ Interview preparation guides and e-books
✓ Unlimited 24*7 Community support

ZEP ANALYTICS

The outburst of data is transforming businesses. Companies - big or small - are now expecting their business decisions to be based on data-led insight. Data specialists have a tremendous impact on business strategies and marketing tactics.

The demand for data analytics professionals are on the rise while the supply remains low, thus creating great job opportunities for individuals within this field.

Today, it is almost impossible to find any brand that does not have social media presence; soon, every company will need data analytics professionals. This makes it a wise career move that has a future in business.

So here is a course that will help you to become a Data, Business or a BI Analyst.

The course covers all the skills required for above job role in detail.

MODULE 1 : Introduction to the course

A general introduction to the course covering all the important aspects that you should know when you are in the Data Analytics industry. This module will be a basic module that will help you in framing your analytical perspective.

Inside the Module:

1. What is Data Analytics?
2. Need for Data Analytics in today's Industry
3. Introduction to Business Understanding
4. Data Collection & Data Preparation
5. Data Modelling
6. Implementing the problem with a proper solution
7. Different problem-solving frameworks to adopt

MODULE 2 : Python for Data Analytics & EDA

Python is one of the most important language when it comes to Data Analytics. Due to rich python libraries data analysis tasks become quite easy and interesting. So in this module we are going to start with Python for Data Analytics where all the important needful concepts will be covered in detail..

Inside the Module:

1. Basics of Python
2. Data Structures in Python
3. Introduction to Problem Solving
4. Control Structures (if, if-Else, elseif, nested if-else, etc.)
5. Loops in Python
6. Functions
7. Object-Oriented Programming
8. Exception Handling and Database Programming
9. Libraries like: Pandas, NumPy, Matplotlib, Seaborn etc
10. Exploratory Data Analysis

MODULE 3 : Statistics for Data Analytics

Data Analytics is all about statistical analysis and learning. In this module, we are going to learn about different statistical concepts which are important for Data Analytics.

Inside the Module:

3.1) Introduction to Statistics
1. Type of statistics
2. Type of Data
3. Different Sampling Techniques
4. Measures of Central Tendency (Mean, Median, Mode)
5. Measures of Dispersion (Variance and Standard Deviation)

3.2) Intermediate Statistics
1. Introduction to Probability
2. Permutations and Combinations
3. Conditional Probability and Bayes Theorem

4. Introduction to Gaussian Distribution and properties
5. Central Limit Theorem
6. Covariance and Correlation
7. Pearson And Spearman Rank Correlation
8. Binomial Distribution
9. Bernoulli Distribution
10. Poisson Distribution

3.3) Advanced Statistics
1. Introduction to Confidence Intervals
2. Z-test and t-test
3. Hypothesis Testing
4. ANNOVA
5. AB Testing

Note: All the concepts of the module will be covered theoretically and practically as well.

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MODULE 5 : SQL for Data Analytics

Data is stored in Databases and databases can be of various types. But when we talk about Databases what first comes in our mind is SQL (Structured Query Language). Even in most of the data analytics job description SQL is always mentioned.

Inside the Module:

1. **I**ntroduction to Databases
2. What is SQL?
3. Introduction to Schemas and its types
4. Introduction to Relational and Non-Relational Schemas
5. Different integrity constraints in SQL
6. Details on different keys in SQL
7. Data Definition Language (DDL)
8. Data Manipulation Language (DML)
9. Joins in SQL
10. Nested queries
11. Stored Procedures
12. Windows Functions
13. SQL - Python connectivity
14. **Case Studies**

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MODULE 6 : MS Excel

Microsoft Excel is a popular tool for basic data analytics, offering capabilities for data manipulation, visualization, and simple statistical analysis. However, for more complex data analytics tasks, dedicated data analytics tools and programming languages like Python are often preferred for their advanced capabilities and flexibility.

Inside the Module:

1. Pre-defined functions
2. Advanced functions
3. Statistical/Mathematical functions
4. Database functions
5. Formatting
6. Charts in Excel
7. Lookup functions
8. Data Analysis in Excel
9. **Case Study**

MODULE 7 : Power BI

Learn the Art of Dashboarding and Data Visualization using Power BI

Inside the Module:

1. Introduction to Power BI
2. Components
3. Architecture
4. Product Portfolio
5. Life Hack: Guide to install Pro
6. Desktop Features
7. Power BI Services and Integration
8. Power Query Editor: The Heart of Power BI
9. Understanding DAX
10. Power BI Functions
11. Power BI Visuals
12. Power BI Charts
13. Power BI KPIs
14. Administration Options
15. Data Visualization
16. Exploratory Data Analysis
17. **Project: Subscriber Churn**

MODULE 8 : Tableau

Learn the Art of Dashboarding and Data Visualization using Tableau

Inside the Module:

1. Introduction to Tableau
2. BI Process
3. Architecture
4. Tableau Basics
5. Different Charts
6. Functions in Tableau
7. Analytics in Tableau
8. Filters, Hierarchies, Groups
9. Creating Parameters
10. Data Blending
11. Data Joining
12. Data Aggregation
13. Level of Details (LODs)
14. Calculated Fields
15. Logical Statements
16. Dashboarding
17. **Case Study**

MODULE 9 : Predictive Analytics

Predictive analytics involves using historical data, statistical algorithms, and machine learning techniques to identify the likelihood of future outcomes based on patterns and trends in the data.

Inside the Module:

1. Introduction to Predictive Analytics
2. Regression Algorithms
3. Classification Algorithms
4. Clustering Algorithms
5. Feature Scaling
6. Feature Selection
7. Time Series Analysis
8. **Case Study**

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Module 10: ETL Basics

Get prepared on the concepts of Data Engineering as an add-on feature.

Inside the Module:
1. ETL Basics
2. Data Warehouses
3. Data Lakes
4. Data Marts
5. Differences between each one of them

Module 11: LIVE PROJECTS

We Provide 4-5 Projects during the course , and various industry level use case for practice. Students get one to one mentoring while solving various industry level projects too.

Use Cases:

1. Sales Analysis
2. Marketing Analysis
3. Inventory Analysis
4. Telecom Churn Analysis
5. Bank Credit Card Fraud Analysis

ZEP ANALYTICS

Ready to take the next steps?

Zep Analytics offers a complete data science & analytics training taught by expert instructors with a fun, interactive, and beginner-friendly approach.

The courses start with the fundamentals, cover in-demand programming languages like Python, and SQL, visualization tools like Power BI and Tableau, and finish off with advanced specialized courses, including **state-of-the-art Machine and Deep Learning.**

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