



**SOPHIA GIRLS' COLLEGE, AJMER
(AUTONOMOUS)**

DATA ANALYTICS - IoA

FOR STUDENTS WITH BCA, IMSC, BSC (Mathematics)

Frequently Asked Questions (FAQs)



1. What Is IOA?

Institute of Analytics (IoA) is the Professional Global Body for Analytics and Data Science professionals in UK and International.

For more details: <https://www.ioaglobal.org/>

2. When can I begin the Data Analytics certificate program?

A student can opt for the Data Analytics Certification post their plus two.

3. What is the benefit I get if I by doing Data Analytics (IoA) along with my college studies?

In house training

- Saves time
- Saves money
- Dual qualification (Degree + Professional Qualification)

4. How long does it take to complete the Data Analytics certificate?

It takes a minimum of 2 to 3 years to complete the course along with your regular studies.

7. What are the Modules covered in the Data Analytics course?

The course is updated. We have incorporated what the Corporates look for in the 8 Modules.

Module 1 – R Programming

Module 2 - Python Programming

Module 3 - SQL

Module 4 –Big Data Analytics

Module 5 - Machine Learning & AI

Module 6 –Deep Learning

Module 7 - Natural Language Processing

Module 8 –Computer Vision

8. How many papers does a student have to clear for the certification?

The students have to appear for 1 exam apart from their University exams.



9. Where will the training, delivery mode for Data Analytics takes place?

The programme will be delivered by qualified and competent faculty and Industry professionals for 30 hours per paper in the campus of the College/University with the use of desktop or laptops.

10. How many credits is the Data Analytics certificate program?

All the rights are with the University and their prescribed norms.

11. What Analytical software tools or languages are used in the Course?

Some of languages/tools that will be taught are:

- R Studio - R Programming
- Anaconda/Jupyter - Python Programming
- SQL
- No SQL
- Horton works/Cloudera

12. What is the career scope of a BCA/MCA in Data Analytics?

BCA/MCA students with Data analytics certification are eligible for roles such as data analyst, risk analyst, data scientist in companies like HSBC, UBER, Accenture, IBM, Infosys, Intel, Tohamatsu Limited, TCS etc.

Career Profiles/Options:

- Data Science
- Information Technology and Computing
- Data Intelligence and Analytics Consultant
- Statisticians
- Risk Analyst
- Content Analyst
- Data Scientist
- Data Analyst
- Metrics and Analytics Specialist
- Data Engineer
- Chief Engineer
- Data Mining Analyst
- System Analyst

13. What is the average salary someone holding a BCA/MCA in Data Analytics earns?

The average package for a graduate starts at INR 4-5 lakhs per annum and depends on the industry.

14. Do Students have to be a Science or Maths major to be successful in Data analytics?



Students from Science, Computer or Technical background will find it easier to understand the technology or language used in the course.

However, student who has completed the training successfully has potential to excel in the field.

15. What are the career opportunities for an Analytics Professional?

Learn how to help organizations make sense of data – a skill that is in growing demand across a wide range of sectors. This data analytics qualifications is one of the few of its kind, offering an additional career advantage.

There is currently a shortage of graduates with sound data analytics skills, putting students in a good position to find a job once they graduate.

Skills will be valuable within any organization that collects and uses large amounts of data, in roles such as risk analyst, data analyst and data scientist.

Students could choose to become a data analyst within a consultancy firm or government agency, or work in fields such as manufacturing, healthcare or defense.

16. Which are the potential companies hiring Data Analytics Professionals?

Global Companies

Intel (US), IBM (US), Microsoft (US), Lenovo (china), Cisco (US), Facebook (US), Accenture (U.K.), Bitfury (US), R3 (US), Linux (US).

The leading players also include - Deloitte, Touche, Tohmatsu limited, IBM Corporation, Chain INC, Consensus Systems (Consensys), Ripple, Digital Asset Holdings, Credits.

Intel, Iris AI, Microsoft, NextIT, Nvidia, OpenAI, Salesforce, Soundhound, Twilio, Visenze, X.ai, and Zebra Medical Vision

Indian Companies

Flipkart, Myntra and Amazon are using AI. Also several startups have come up in the field of AI such as: Maraxai, Artivatic Data Labs, Mad Street Dan, Staqu, Vserv, Fractal, Crayon etc.

17. What are the membership benefits of IOA?

Membership of the Institute confers professional recognition of your standing in the industry, allowing the use of the designatory letters. Benefits of membership include:

- Use of the official designation of the Institute
- Invitations to the entire Institute's networking events



- Access to our Continuous Professional Development programmes and Online Portal
- Invitations to our regular Institute Breakfast Briefings where industry experts share their insights, knowledge and experience
- Access to our job opportunities page, exclusive to members
- Invitations to our Annual Conferences and Regional Conferences.

18. Is there any hidden pricing other than mentioned in the students hand out?

No extra charges.

There might be slight changes in IOA fee component/ exchange rate variation etc.

IOA fee is as per the discretion of IOA and is subject to change.

For fee refer to the attached document

19. What are the Learning Outcomes for the subjects?

R Programming

The objective of this module to make students exercise the fundamentals of statistical analysis in R environment. They would be able to analysis data for the purpose of exploration using Descriptive and Inferential Statistics. Students will understand Probability and Sampling Distributions and learn the creative application of Linear Regression in multivariate context for predictive purpose.

Python Programming

Python Programming module is intended for students who wish to learn the Python programming language. This module is highly important so as to proceed with this programme. The module comprises of Programming basics with regards to Python Language such as Data Types, Operators, Functions, Classes and Exception Handling.

Structured Query Language (SQL)

In this course, the students will learn the basics of the SQL/No SQL and the Relational Databases. They will learn about the Relational Model and Relational Model concepts and constraints. The students will get exposure to key concepts with regards to SQL Language and DBMS such as Normalization, Transaction Processing along-side an exposure to No SQL programming.

Big Data Analytics

This module forms an introduction as well an in-depth study in the field of Big Data and Hadoop. It comprises of the fundamentals as well as advanced topics needed to progress in this technology. The students will learn about the applications, usage and several use case scenarios pertaining to Big Data- Hadoop where they can use the knowledge and progress ahead.



Machine learning and Artificial Intelligence

This module comprises of conceptual, statistical and Machine Learning algorithms. It covers all the necessary models pertaining to Machine Learning such as Regression, Decision Trees, Support Vectors, Clustering, Association Analysis and Dimensionality Reduction.

Deep Learning

This module forms an introduction as well an in-depth study in the field of Deep Learning. The module enlists all the necessary and fundamental topics needed to learn Deep Learning and its applications. Starting from the basics of Deep Neural Networks, the module progresses through the Regularization, Optimization, Convolutional Neural Networks, Sequence Analysis and Applications in Real World Scenarios.

Natural Language Processing

This module aims to provide an exposure to students based on Natural Language Processing Techniques, Algorithms and Analytics based on Textual Data. The module comprises of NLP basics, Feature Extraction, Relationship Extraction, Text Categorization, Clustering and Topic Modeling Algorithms and Practices.

Computer Vision

In this module the students will learn basic principles of Image Formation, Image Processing Algorithms, and Algorithms for 3D Reconstruction and Recognition from Single and Multiple Images. This module emphasizes on core vision tasks of Scene understanding and Recognition.

20. If I have any queries regarding the course whom should I connect?

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