Indian Institute of Information Technology Vadodara (IIIT Vadodara)

B.Sc Data Science and Analytics

Type	Mode
Ug Program	Online

Duration

3 Years

Total fees

₹ 269,100

UNIVERSITY

Indian Institute of Information Technology Vadodara (IIIT Vadodara)

Established in 2013 by the Ministry of Education, Government of India, IIIT Vadodara is an Institute of National Importance committed to advancing education, research and innovation in information technology. Founded through a Public-Private Partnership, the institute brings together government and industry expertise to develop globally competent technology professionals. Its academic environment emphasises interdisciplinary learning, technical excellence, practical problem-solving and the application of emerging technologies to real-world challenges.

PROGRAM

B.Sc Data Science and Analytics

Highlights

- Earn a B.Sc. degree in Data Science and Analytics from IIIT Vadodara.
- Learn through live online sessions delivered by IIIT Vadodara faculty.
- Build practical expertise in Python, SQL, Power BI, Tableau, Machine Learning and data visualisation.
- Gain exposure to modern technologies including Cloud Computing, Generative AI, Computer Vision and IoT.
- Apply learning through laboratory courses, an internship, a mini project and a major project.

Learning outcomes

- Apply statistical methods, programming and Machine Learning techniques to analyse complex datasets.
- Manage, process and visualise data using Python, SQL, Power BI, Tableau and related tools.
- Use descriptive, diagnostic, predictive and prescriptive analytics to support business decisions.
- Develop data-driven solutions while considering privacy, ethics and data-protection requirements.
- Communicate analytical findings effectively to technical and non-technical stakeholders.

Eligibility Criteria

Class 12 or equivalent (list of equivalents)

The final examination of the 10+2 system, conducted by a Central or State Board recognized by the Association of Indian Universities (AIU).

Intermediate or two-year Pre-University examination conducted by a Board or University recognized by the Association of Indian Universities.

Final examination of the two-year course of the Joint Services Wing of the National Defence Academy.

Senior Secondary School Examination conducted by the National Institute of Open Schooling with a minimum of five subjects.

Any Public School, Board or University examination in India or in a foreign country recognised as equivalent to the 10+2 system by the AIU.

Curriculum Overview

Semester I (7 subjects)

- Introduction to Computer and Problem-Solving Techniques
- Programming Lab
- Discrete Mathematics
- Environmental Sustainability and Climate Change
- Introduction to Data Science and Analytics
- Communication Skill - 1
- Ethics and Social Implications of AI

Curriculum Overview (continued)

Semester II (10 subjects)

- Object Oriented Programming
- Object Oriented Programming Lab
- Computer Networks
- Computer Organization and Architecture
- Elective
- Elective Lab
- Introduction to Cloud Computing
- Introduction to Cloud Computing Lab
- Advance MS-Office
- Advance MS-Office Lab

Semester III (9 subjects)

- Data Structures and Algorithms
- Data Structures and Algorithms Lab
- Python Programming
- Python Programming Lab
- DBMS
- DBMS Lab
- Introduction to Software Engineering
- Introduction to Power BI and Tableau
- Seminar

Curriculum Overview (continued)

Semester IV (15 subjects)

- EDA and Visualization
- EDA and Visualization Lab
- Introduction to Operating System
- Machine Learning
- Machine Learning Lab
- Statistics for Data Analysis
- Internship / Project
- Power BI and Tableau Lab
- Introduction to Artificial Intelligence
- Artificial Intelligence Lab
- Data Science Applications
- Research Methodology
- Business Analytics
- Data Analytics using Python
- Mini Project

Semester V (7 subjects)

- Introduction to Artificial Intelligence
- Artificial Intelligence Lab
- Data Science Applications
- Research Methodology
- Business Analytics
- Data Analytics using Python
- Mini Project

Curriculum Overview (continued)

Semester VI (19 subjects)

- Deep Learning
- Deep Learning Lab
- Data Science Applications in Analytics
- Advanced Data Science and Analytics
- Elective - 2
- Elective - 2 Lab
- Major Project
- Cyber Security
- Generative AI and its Application
- Computer Vision
- Pattern Recognition
- Business Intelligence
- Cloud Computing Lab
- Generative AI and its Application Lab
- Computer Vision Lab
- Pattern Recognition Lab
- Business Intelligence Lab
- Data Analytics using Python Lab
- IoT Lab

Fee Structure

Fee heads	Year 1	Year 2	Year 3	Total
Caution Deposit (Refundable)	₹ 20,000	—	—	**₹ 20,000**
I Card Fee (One time)	₹ 100	—	—	**₹ 100**
Tuition Fee	₹ 75,000	₹ 75,000	₹ 75,000	**₹ 225,000**
Campus Immersion Fee	₹ 3,000	—	₹ 3,000	**₹ 6,000**
Institute Registration Fees	₹ 2,000	₹ 2,000	₹ 2,000	**₹ 6,000**
Alumni Fee	₹ 2,000	₹ 2,000	₹ 2,000	**₹ 6,000**
Convocation Fee	₹ 2,000	₹ 2,000	₹ 2,000	**₹ 6,000**
Total	**₹ 104,100**	**₹ 81,000**	**₹ 84,000**	**₹ 269,100**