

M.Sc in Big data analytics

Introduction

Data today is treated as a source of energy, in any venture. It is this very data that gives us glimpses of where we were yesterday, our current status and what areas we need to improve upon in order to excel in the future. In today's context, the one who has data and can interpret it with the right kind of analysis, becomes the modern day oracle. The initiative taken by Tata Consultancy Services (TCS) has made remarkable strides in shaping the talent capability aligned to data analysis, business requirements and to accrue seamless mutual benefits for the world of academics and industry. The objective of this course is to contribute to overall development of the student community in order to enhance quality and consistency of talent supply by channelizing practical industry knowledge to the classroom. The course, which has been initiated elsewhere, has gained a great admiration and reverence from academia, students and various stakeholders across the country. We are proud to announce that Padma Shri Dr. Bimal Roy, former Director, Indian Statistical Institute has developed the curriculum for Big Data Analytics. The course work comprises Statistical Methods, Probability & Stochastic Process, Linear Algebra & Linear Programming, Computing for Data Sciences, Machine Learning and Database Management. This programme which will now be launched at St. Xavier's College – Autonomous, Mumbai, is a collaborative effort of departments of Information Technology, Statistics and TCS.

Course partner:

St Xavier's College -Autonomous , Mumbai is conducting M. Sc in Big data analytics in collaboration with Tata Consultancy Services (TCS).

Objectives and outcome

Objective: The main objective of this program is to develop the skill of Big data analytics and data analytics.

Outcome- students will be placed as data scientists or big data analysts in IT industry.

Course structure

- The M.Sc. with Big Data Analytics programme is a full-time Master's degree programme consisting of four semesters over two years.

- Lectures will be held on 6 days a week, from Monday to Saturday.
- Lectures will be held on campus at St. Xavier's College.
- The course will teach the following papers across the four semesters.

<p>Semester I</p> <p>ITS0701 Statistical Methods</p> <p>ITS0702 Probability & Stochastic Process</p> <p>ITS0703 Linear Algebra & Linear Programming</p> <p>ITS0704 Computing for Data Sciences using R, Python and Java</p> <p>ITS0705 Database Management – Relational and Non-Relational</p> <p>ITS07PR1 Linear Algebra & Linear Programming & Statistics</p> <p>ITS07PR2 Data base Management Systems and computing for data science</p> <p>ITS07PR3 Python Programming</p>	<p>Semester II</p> <p>ITS0801 Foundations of Data Science</p> <p>ITS0802 Advanced Statistical Methods</p> <p>ITS0803 Machine Learning-I</p> <p>ITS0804 Value Thinking</p> <p>ITS0805 Enabling Technologies for Data Science</p> <p>ITS0806 Cloud computing /Operation Research</p> <p>ITS08PR1 Foundation of Data Science & Advanced Statistical Methods</p> <p>ITS08PR2 Machine Learning I &Enabling Technologies for Data Science</p>
<p>Semester III</p> <p>ITS0901 Enabling Technologies for Data Science 2</p> <p>ITS0902 Machine Learning 2 including Deep Learning</p> <p>ITS0903 Data Visualization with Tableau & Modelling in</p>	

	Operations Management	
ITS0904	IPR / Cyber Security. Text mining Advanced Analytics	Semester IV • Internship based project -20 credits
ITS0905	Time series Analysis & Forecasting /Bio informatics / Big Data Technologies and Architecture	
ITS09PR1	Machine Learning 2 including Deep Learning &elective 1	
ITS09PR2	Enabling Technologies for Data Science 2 & elective 2	
ITS09PR3	Data Visualization with Tableau & Modelling in Operations Management	

- The course consists of 96 credits. Each credit equals 15 hours. The credit distribution across the course is as follows:

Semester-wise: 24 credits (Sem I) + 24 credits (Sem II) + 28 credits (Sem III) + 20 credits (Sem IV)

Introductory fee structure

The introductory fee of M.Sc in Big data analytics in the year 2019-20 would be Rs 90000/- per year. It would be revised depending on the variable factors like cloud service charge and professional charge etc. from 2020 June onwards.

Number of seats

The intake is a maximum of 30 students per year.

Allocation of seats

St. Xavier's College is a Catholic Minority College, administered under the Provisions of the Indian Constitution, to promote the welfare of the minority community and to extend its services to all other communities in India, so as to contribute to the harmony and integration of Indian society. 50% of seats are reserved for Catholic minority students.

As per the Judgement dated 12th October 2017 of the Honourable Bombay High Court vide Writ Petition No.1726 of 2001, Minority Colleges do not need to set aside seats for Backward Classes. This was reiterated by the University of Mumbai Circular (No.Aff. / Recog.I / Admission (2018-19) / 10 / of 2018) dated 30th May, 2018.

Accordingly, the allocation of seats is as follows:

Category	Percentage of seats reserved	Number of seats out of 30
Management Quota	15%	5
		Number of seats out of 25
Christian Minority	50%	12 #
General	42%	11#
Persons with disability	5%	1
Special**	3%	1

** The Special category is for the wards of transferred State / Central Government and Private Sector employees, Defence Personnel, Ex-Servicemen, Freedom Fighters; for students who have met with an accident and also for award winners at the District / State / National Level in Sports or Cultural activities.

Please note, admissions are as per University of Mumbai guidelines.

6 seats of the total seats in Christian minority and 5 seats in general Category will be reserved for B.Sc (Maths), B.Sc(Statistics) and remaining seats will be reserved for B.Sc(IT,CS) and B.C.A

Eligibility

- 1) A student who has completed **B.Sc(Maths), B.Sc(Statistics), B.Sc(IT), B.Sc(CS) and B.C.A** from any recognized university from India with **minimum 55 percent or equivalent C.G.P.A** is eligible for this program.
- 2) It is mandatory that all students should have done **Calculus and Linear Algebra** course during their graduation.

Admission

Admission of students into M.Sc in Big data analytics will be on the basis of the **C.G.P.A or aggregate marks** in the graduate exams.

Important Dates (tentative)

- Starting of acceptance of online applications : 1st June 2019 (Application form link will be active from this date onwards on www.xaviers.edu)
- Last date for applying online : 25th June 2019
- Other dates related to admission process will be intimated later through college website.

For any queries or clarifications, please send an email to bigdata@xaviers.edu