

M.Sc. in Data Science and Statistics

Transform Data into Insight. Lead with Intelligence.

Program Overview

The **Master of Science in Data Science and Statistics** is designed to equip students with **advanced statistical, computational, and analytical skills** required to extract meaningful insights from complex data.

This interdisciplinary program blends **theory, practical applications, and research**, preparing professionals capable of **data-informed decision-making** across academia, industry, and government sectors.

Study Pathways

- **Master's by Coursework – SLQF Level 9 | Duration: 1 year**
Tuition Fee: Rs. 250,000.00
 - **Master's with Coursework and Research Component – SLQF Level 10 | Duration: 2 years**
Tuition Fee: Rs. 300,000.00
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Program Highlights

- Advanced training in **statistics, machine learning, and data analytics**
 - Hands-on experience with **R, Python, SQL, and big data tools**
 - Emphasis on **data ethics, visualization, and effective communication**
 - Opportunities for **independent research and professional development**
 - Prepares graduates for **doctoral studies** or **data-driven careers**
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Teaching Method

This program combines **theoretical instruction** with **practical experience**. Students will learn foundational and advanced concepts through lectures and apply them in **hands-on lab sessions** using real-world datasets.

Through guided exercises, students will gain proficiency in **statistical software and programming languages** such as **R** and **Python** for data analysis, modeling, and visualization.

Method of Delivery

The **hybrid learning mode** integrates both in-person and online delivery:

- **60% face-to-face:** lectures, computer labs, and seminars
- **40% online:** lectures, access to materials, assignments, and discussions at students' convenience

Online components include **lectures on basic concepts**, ensuring that students can grasp theoretical foundations before engaging in advanced practical sessions.

This flexible approach accommodates both **working professionals** and **full-time learners**.

Medium of Instruction

English

Programme Structure

(Master of Science in Data Science and Statistics – SLQF Level 10)

Semester	Course Code	Course Name	Credits	Status
I	DS5113	Probability and Statistical Methods	3	Compulsory
	DS5122	Software Technologies for Data Science using Python	2	Compulsory
	DS5133	Introduction to Machine Learning	3	Compulsory

	DS5142	Linear Optimization and Extensions	2	Compulsory
	DS5152	Time Series and Forecasting	2	Compulsory
	DS5161	Case Study	1	Compulsory
II	DS5212	Multivariate Data Analysis	2	Compulsory
	DS5222	Bayesian Inference and Computation for Data Scientists	2	Compulsory
	DS5232	Advanced Software Technologies for Data Science using R	2	Compulsory
	DS5242	Nonlinear Programming and Global Optimization	2	Compulsory
	DS5252	Neural Networks in Artificial Intelligence	2	Compulsory
	DS5262	Time Series with Machine Learning ¹	2	Optional
	DS5272	Statistical Machine Learning ¹	2	Optional
	DS5285	Independent Study	5	Compulsory
III	DS6300	Research Methodology	0	Compulsory

¹ One out of two optional subjects is compulsory for the Master of Science in Data Science and Statistics (SLQF 9 and 10).

Award Options and Exits

Students who wish to **extend to SLQF Level 10** are required to complete the following components (highlighted in yellow):

- **DS6300 – Research Methodology (0 credits)**
- **DS6399 – Research Project (30 credits)**

In cases where a student has not successfully completed the **Independent Study**, a **comprehensive examination** will be conducted.

Based on performance, the student may be awarded either:

- a **Postgraduate Diploma (SLQF Level 8)**, or
- a **Postgraduate Certificate (SLQF Level 7)**,

subject to the relevant **By-Laws and Regulations**.

Career Prospects

Possible Roles:

- Data Scientist
- Statistician
- Machine Learning Engineer
- Research Analyst
- Data Engineer

Employment Sectors:

- Technology
- Finance
- Healthcare
- Education
- Government
- Research and Development


Contact Information


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