DSEU

Delhi Skill and Entrepreneurship University

B.Sc.
(Data Analytics)

Effective from Academic Year 2022-23

Program Information

Introduction

In today's dynamic business landscape, the ability to drive corporate business decisions through data-driven insights leads to market leadership and gives organisations a competitive edge. Increasingly, the integration of data analytics and science is proving to be a game-changer for businesses across industries. Organisations are seeking to gain revenue-generating insights from data and build future strategies for business growth. We strongly believe that in the coming days no business will survive without Data and Business Analytics, making knowledge of analytics an indispensable and universally desired skill set.

Program Objective

Delhi Skill and Entrepreneurship University (DSEU) Professional Certificate Programme in Data Analytics (exit after first year), Diploma Program in Data Analytics (exiting after second year) and B. Sc. in Data Analytics (on completion all 3 years) graduate program provides strong and sustainable human resources to corporates to meet their needs on data management, wrangling, storage, exploratory data analysis, automation, predictive and prescriptive analytics, and the use of machine learning and artificial Intelligence algorithms. Along with a very strong business problem-solving skills and technical understanding, the programme will help professionals enhance their proficiency in data science and gain in-depth skills and robust knowledge of machine learning and artificial Intelligence algorithms and techniques supported by Python, Excel, Tableau, Power BI, IoT and AI-ML using cloud resource including GPUs and TPUs.

Since most of the data available today is in semi structure, unstructured, streaming image and video format, and is ever growing at an exponential rate, joining this program will train professionals to gain skills and techniques such as text mining and social media analytics that are vital for maximising business growth and transformation.

Pedagogy & Teaching methodology

Additionally, this program's effective pedagogy (developed by who's who of Data Science and Analytics experts from academia from IITs, IIM, ISB and various prestigious IT industries like CISCO, Cognizant, and Honeywell) and focus on real-world examples and hands-on projects from corporates, case studies, and practical sessions will assist in identifying data insights and making high-output business decisions. Apart from technical skills, the program focuses on deep integration of soft skills, or as we call them 'Face the work skills (FTW)', across all semesters. These FTW skills encompass communication skills, digital literacy, professional development, workplace behaviour and career development, just to name a few, and prepare you to enter the corporate world as well-groomed professionals.

Student Outcomes (SOs)

The Program Educational Objectives of B. Sc Data Analytics Programs is to produce graduates who would:

- Establish themselves as Business Analysts, Data Analysts, Artificial Intelligence and Machine Learning scientists and subject matter experts in various private and public sectors that are involved in the design, creation, maintenance and use of industrial and organization data and help nation building.
- Solve real world business problems by applying knowledge ethically that will benefit organizations and society at large.
- Adapt to changing trends in Data Science, Business Analytics, Artificial Intelligence and Machine Learning and become lifelong learners.

Placement and Internship

With strong industry partnership since the inception of this course, design and development of curriculum of this prestigious program called B. Sc Data Analytics focusing mostly on industry desired skill development, students have a very high chance to get much required industry internship experience and build their strong career for sure. After completing this program, you will join as a data analyst with compensation ranging from INR 20,000 to 25,000 in MNCs such as Infosys, TCS, Wipro, IBM, etc. One can further specialize in niche domains by enrolling in a master's program either in India or abroad.

Credit Scheme

Semester I			
Sl No.	**Subject Code**	**Course Titles**	**Total Credits**
1	DTA-DC101	Basics of Computing	3
2	DTA-DC102	Python Programming	4
3	DTA-DC103	Data Collection and Statistical Analysis- I	3
4	DTA-DC104	Mathematical Foundation for Data Analytics-I	3
5	DTA-SE101	Fundamentals of Excel	3
6	DTA-AE101	English Communication - I	2
7	DTA-FW101	Face the World Skills (FTW) - I	3
Total			**21**

Semester II			
Sl No.	**Subject Code**	**Course Titles**	**Total Credits**
1	DTA-DC201	Database Management System	4
2	DTA-DC202	Mathematical Foundation for Data Analytics	4
3	DTA-DC203	Visualization and Storytelling with Data	3
4	DTA-AE201	English Communication - II	2
5	DTA-AE202	Environmental Studies (EVS) - I	2
6	DTA-FW201	Face the World Skills (FTW) - II	3
7	DTA-SE201	Advance Excel	3
Total			**21**

Internship I			
Sl No.	Course Code	Course Titles	Total Credits
1	DTA-PR201	Optional Internship/Summer Project	-

Semester III			
Sl No.	Course Code	Course Titles	Total Credits
1	DTA-DC301	Statistics for Data Analytics	4
2	DTA-DC302	Basics of Machine Learning	5
3	DTA-DC303	Data Structure and Algorithm	5
4	DTA-FW301	Face The World Skills - III	3
5	DTA-DC304	Basics of Economics	3
7	DTA-SE301	MooC: Power BI or Qlik	2
8	DTA-AE301	Environmental Studies (EVS) - II	2
Total			**24**

Semester IV			
Sl No.	Course Code	Course Titles	Total Credits
1	DTA-DC401	Advanced Machine Learning	4
2	DTA-DC402	Neural Networks	3
3	DTA-DC403	Natural Language Processing	3
4	DTA-AE401	MooC: Elements of Business	4
5	DTA-FW401	Face The World Skills - IV	3
6	DTA-SE401	Visual Analytics	3
7	DTA-SE402	MooC: R or Web Design	2
8	-	MooC: Salesforce Developer Catalyst course *	-
Total			**22**

Internship II			
Sl No.	**Subject Code**	**Course Titles**	**Total Credits**
1	DTA-PR401	Optional Internship/Summer Project	-

Semester V			
Sl No.	**Subject Code**	**Course Titles**	**Total Credits**
1	DTA-DC501	Model Deployment and Cloud Management	4
2	DTA-DC502	Time Series and Forecasting	4
3	Students to choose 3 electives from the list provided	Elective 1	3
4		Elective 2	3
5		Elective 3	3
6	DTA-FW501	Face The World Skills - V	3
7	DTA-FW502	Negotiating to Yes	2
Total			**22**

Semester VI (Industry Internship)			
Sl No.	**Subject Code**	**Course Titles**	**Total Credits**
1	DTA-SI601	Industry Internship (mandatory)	25

List of Electives (For Semester V)	
Course Code	**Course Titles**
DTA-EC501	Advanced Data Structure & Algorithms
DTA-EC502	Ambient Intelligence
DTA-EC503	Artificial Intelligence
DTA-EC504	Audio Visual Analytics
DTA-EC505	BFSI Analytics
DTA-EC506	Cyber Security
DTA-EC507	Deep Learning
DTA-EC508	Graph Analysis
DTA-EC509	Operations and Supply Chain Analytics
DTA-EC510	Recommendation System

Note: *The detailed syllabi for courses that are common across programs, for example, English, Face the World, etc., are presented separately.*