UpGrad & iiit-b

PG DIPLOMA
IN DATA SCIENCE

11 MONTHS | ONLINE

UpGrad

UpGrad is an online education platform to help individuals develop their professional potential in the most engaging learning environment. Online education is a fundamental disruption that will have a far-reaching impact. At UpGrad, we are working towards transforming this online education wave into a tsunami! We are taking a full-stack approach of leveraging content, technology, marketing and services to offer quality education at scale in partnership with corporates & academics to offer a rigorous & industry relevant program.

Based on our market research and conversation with the industry, we have identified Data Science as one of the sectors with critical supply demand imbalance. Our vision is to design and deliver a quality online Post-graduate Program in Data Science to drive the growth of the sector and make India a global hub for data science.

If you are reading this, you may wish to accelerate your career in Data Science. With UpGrad, we promise to equip you with the perfect mix of business acumen and technical capabilities to help you achieve exactly the same.
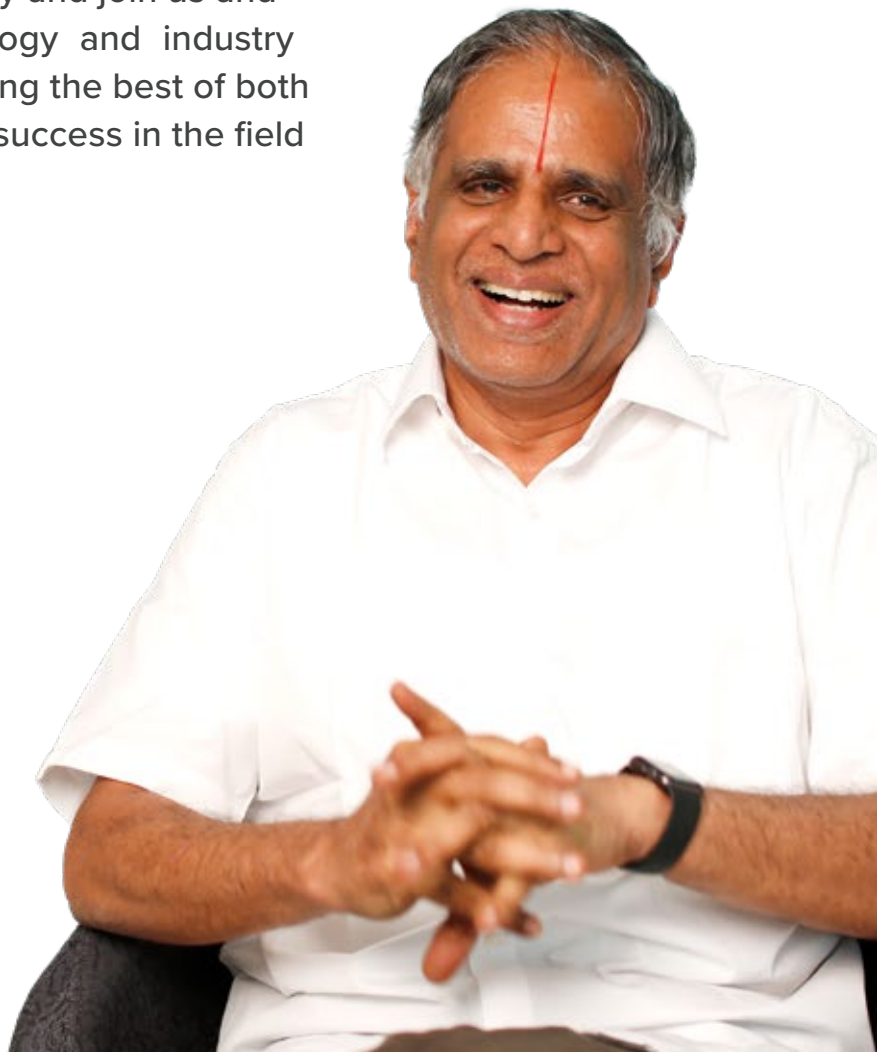
Ronnie Screwvala

Co-Founder
UpGrad

IIIT-B is well respected in the global academic circles as well as in the global analytics and IT industry. We have outstanding world class faculty, with years of experience, in charge of running the Analytics Essentials Executive Education Course.

We are excited to partner with UpGrad to offer a one-of-its-kind, academically rigorous and industrially relevant PG Diploma Program in Data Science. IIITB's faculty will be discussing the conceptual depths of topics such as DS, ML, BDA and this will be complimented by industry relevant case studies from major industry verticals by industry leaders from UpGrad's industry network. Further, our strong placement network, industry mentorship and the credibility of a PG Diploma Program will provide you just the right push to accelerate your career in Data Science!

We invite you to take this opportunity and join us and make use of the excellent pedagogy and industry collaborations. You will truly be getting the best of both worlds, which will help you achieve success in the field of Data Science.

Prof. S. Sadagopan

Director
IIIT Bangalore

WHY DATA SCIENCE
WITH UPGRAD & IIIT-B?

PG DIPLOMA FROM IIIT-B

Earn a reputed Post Graduate Diploma without leaving your job

FOR THE INDUSTRY, BY THE INDUSTRY

Receive 1:1 mentoring from Industry Experts and be ahead of the curve by learning what the industry needs

CAREER SUPPORT

Get access to career coaching services and get introduced to the right opportunities to upgrade yourself

ON-THE-GO LEARNING

400 hours of lectures squeezed into 30 mins learning sessions anywhere – anytime

DOMAIN SPECIALIZATION*

Choose among BFS, E-commerce or Healthcare & build a resume showing expertise in one of the largest sectors in the world

STUDENT MENTORSHIP

Academic/non-academic mentorship and unparalleled peer-to-peer learning

*An elective would be launched only if there is a sizeable student demand for the particular elective

INSIGHTS FROM
INDUSTRY EXPERTS

TEJAS SANGHVI
Vice President
Fractal Analytics

ANSHUMAN GUPTA, PHD
Director - Data Science
Pitney Bowes

UJJYAINI MITRA
Head of Analytics
Viacom 18

S. ANAND
CEO
Gramener

SAMEER DHANRAJANI
CSO
Fractal Analytics

KALPANA SUBBARAMAPPA
Ex-Assis. VP, Decision Sciences
GENPACT

SAI ALLURI
PRO Analytics &
Strategy Manager
Uber

HINDOL BASU
Partner
Tata IQ

CONCEPTS FROM
TOP ACADEMICIANS

PROF. S. SADAGOPAN
Director
IIIT Bangalore

TRICHA ANJALI
Associate Professor
IIIT Bangalore

**CHANDRASHEKAR
RAMANATHAN**
Dean (Academics)
IIIT Bangalore

DINESH BABU JAYAGOPI
Assistant Professor
IIIT Bangalore

G SRINIVASARAGHAVAN
Professor
IIIT Bangalore

UPGRAD BASECAMP:
OFFLINE MEET-UPS
& LEARNING

Along with online learning, UpGrad BaseCamp meet-ups act as a physical platform for extensive peer-to-peer learning, networking and idea exchanges. BaseCamp brings together, a hybrid offline and online learning experience for all the Learners & Alumni of UpGrad. Held across major cities in India, these fun, yet informative and career building events add on to the already great learning experience that UpGrad provides.

WHAT'S IN IT FOR OUR LEARNERS?

Networking with Faculty and Student Mentors

Career Building Sessions

Engaging and Live Group Projects

Fun and Exciting Activities

Peer Interaction and Career Networking

PROGRAM
CURRICULUM

Note: This curriculum is subject to change based on inputs from IIITB and Industry.
Modules marked as (*) are optional.

INTRODUCTION TO DATA MANAGEMENT

LANGUAGES OF DATA SCIENCE
Learn tools and languages used for data analysis - R, Excel, SQL, Python & Tableau.
These modules are also part of the preparatory course

INTRODUCTION TO DATA WAREHOUSING AND OLAP
Equip yourself with the knowledge to extract and pre-process data before analysis

DATA PREPERATION
Learn how to prepare data before analysis

CASE STUDY- INVESTMENTS
Implement your learnings to find sectors in which different companies ought to invest

STATISTICS AND EDA

DATA VISUALIZATION
Make your data alive with visuals using R and tools like Tableau

DESCRIPTIVE STATISTICS
Summarize and describe data sets using measures such as Central tendency and variability

INFERENTIAL STATISTICS
Learn probability, Central Limit Theorem and more to draw inferences

EXPLORATORY DATA ANALYSIS
Derive initial insights from the data using R and other visualization tools

HYPOTHESIS TESTING
Understand how to formulate & test hypotheses to solve various business problems

CASE STUDY-UBER SUPPLY-DEMAND GAP
Apply Statistics and understand how Uber solves its supply-demand gap

INTRODUCTION TO MACHINE LEARNING I

LINEAR REGRESSION
Learn to implement linear regression and predict continuous data values

SUPERVISED CLASSIFICATION
Understand and implement algorithms like K-NN*, Naive Bayes* and Logistic Regression

CLUSTERING
Learn how to create segments based on similarities using K-Means and Hierarchical clustering

CASE STUDY - TELECOM CHURN
Learn how a telecom giant predicts its customer churn. Apply multiple algorithms
simultaneously to see which one works the best

INTRODUCTION TO MACHINE LEARNING II

TIME SERIES
Learn how to make predictions using time dependent/variant data

DECISION TREES
Tree-based model that is simple and easy to use. Learn the fundamentals on how to
implement them

SUPPORT VECTOR MACHINES
Learn to classify data points using support vectors

NEURAL NETWORKS*
Master Feed-forward, Recurrent and Gaussian Neural Networks. This is your way into AI!

ASSOCIATION RULE MINING*
Ever wondered why beer is kept next to diaper in superstores? Find out in this module

BIG DATA ANALYTICS

INTRODUCTION TO BIG DATA AND HADOOP
Understand the basic concepts of Big Data and Hadoop as processing platforms for Big Data

MANAGING BIG DATA
Learn and use Hadoop ecosystem tools like Sqoop & Hive for data ingestion, extraction and
management.

INTRODUCTION TO SPARK
Understand and use Spark, a fast Big Data processing platform

BIG DATA ANALYSIS
Learn how to analyze Big Data using SparkR, SparkSQL

DOMAIN ELECTIVES**

BFS
Learn Customer analytics and Risk Analytics within BFS

E-COMMERCE
Learn customer marketing analytics and recommendation engines

HEALTH CARE
Understand use of analytics in Healthcare improvement and drug discovery

CAPSTONE PROJECT

Build your expertise in one of the largest sectors in the world by taking up a
2-month capstone project.

*** An elective would be launched only if there is a sizeable student demand for the particular elective*

SUCCESS
STORIES

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The assignments and case studies are the ones that will really give you a mileage during the job interviews. Through UpGrad and IIIT-B career support, I have secured an offer from an MNC. I have learnt quite alot from peer discussions. All-in-all UpGrad & IIIT-B program can really help you transition your career to data science.

-Antarik, Network Engineer, USEReady

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I was sceptical even after my admission in the UpGrad & IIIT-B PGDDA program thinking it is an online pilot program. But I soon realised otherwise. This course covers deep concepts in DA and develops confidence in topics through challenging assignments. Team UpGrad is highly reachable & very prompt in addressing course-related concerns. Managing my work and concentrating on the course has never felt like a burden because of how thoughtfully the program is developed for working professionals.

-Kishore M, Sr. Associate - Projects, Cognizant

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The peer to peer interactions help a lot. It is brilliant to collaborate and learn with others even though it's an online program. IIIT-B is a good brand to have and the curriculum of the program is solid.

- Sajal Roychowdhury, Risk Analyst, Amazon India

PROGRAM STARTS
30th September, 2018

DURATION
11 Months (Incl. 2-month Capstone project)

PROGRAM FLOW
8-9 months - Interactive Learning
2-3 months - Industry mentored Capstone Project

WEEKLY COMMITMENT
10 hours per week

> 4-5 hours of asynchronous learning time,
> 4-6 hours assignments & projects,
> 1 live session every 3 weeks

PROGRAM FEE
INR 2,35,000 (Incl. of all taxes)
Flexible Payment Options Available

ELIGIBILITY
Bachelor's/Master's degrees with a minimum of 50% marks in graduation

SELECTION PROCESS
Selection test to assess quantitative and analytical reasoning

For further details, call us at +91 9867297642 or contact:

SHIVANJAN SRIVASTAVA
Chief Admissions Counsellor
datascience@upgrad.com

ROHIT SHARMA
Program Director
Rohit.Sharma@upgrad.com

Tentative date for the start of preparatory session is 1st of July, 2018