TEXAS McCombs

The University of Texas at Austin
McCombs School of Business

POST GRADUATE PROGRAM IN

DATA SCIENCE & BUSINESS ANALYTICS

No Programming Experience Required

Delivered in collaboration with: greatlearning *Power Ahead*

About the Program

Hundreds of online courses exist today. What many of them lack, however, is a commitment to helping you translate your knowledge into something tangible - the ability to excel and grow as a data science professional.

To tackle this, the PGP-DSBA has been designed to give you the academic rigour, learning support, and peer interaction of a full-time course with the flexibility of an online program.

The program uniquely combines a comprehensive curriculum, covering the most widely-used tools and techniques in the industry, with a hands-on learning approach. A structured learning journey keeps you on track throughout as you achieve your weekly learning milestones with your mentor and benefit from their rich professional experience.

Following a "learn by doing" pedagogy, the program offers you the opportunity to apply your skills and knowledge in real-time every week through interactive mentor-led practice sessions, quizzes, assignments, hands-on projects, culminating. As you do so, you come to truly appreciate the nuances of data and build your portfolio in the process.

On a whole, the program empowers you with the skills, body of work, and job market insights you need to find the right career opportunities in data science or lead data science efforts in your current organisation. All this comes with the credibility, global advantage, and academic leadership of McCombs School of Business at The University of Texas at Austin.

Format

Online (Recorded Video Lectures + Interactive Mentored Learning)

Duration

6 Months

Time Commitment

5-7 hours per week

Learning Support

Dedicated Program Manager + Industry Mentor

Projects

8 Hands-on Projects

The UT Austin Advantage

Founded in 1883 and home to more than 51,000 students and 3,000 teaching faculty, the University of Texas at Austin is one of the leading public universities in the United States. The UT Austin name is globally recognised as a leader in the domains of science, business, technology, and social science.

This is especially true for business analytics, where it is ranked at #4 in the world (QS World University Rankings, 2020). The university has also been consistently ranked among the top 20 public universities by U.S. News & World Report, with 15 undergraduate program and 40+ post-graduate programs ranked in the top 10 nationally.
With a proven track record of successes, cutting-edge research and teaching methods, you can be confident that you are learning from the best of the best.

#4

IN BUSINESS ANALYTICS

QS Business Analytics Ranking 2020

Key Facts about Data Science and Business Analytics

- **Sexiest Job of the 21st Century**
  Harvard Business Review, 2012
- **29% increase in demand for data scientists year-over-year.**
  Indeed Report, 2019
- **Data Scientist is the 'most promising job' of the year.**
  LinkedIn, 2019
- **Data Scientist is among the "highest paying jobs" in 2019.**
  Glassdoor, 2019
- **Companies using data science platforms are surpassing their competition.**
  Forrester Consulting Study, 2017

Showcase Your Competence with a UT Austin Certificate

Who is the program for?

The program is for you if, you:

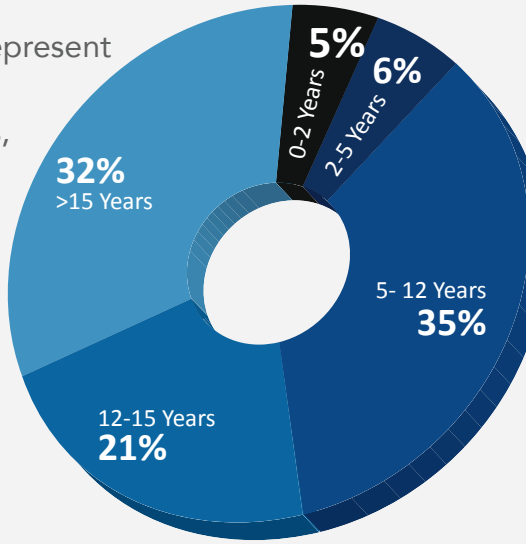
- Like solving problems in a structured manner.
- Love extracting insights from numbers to create insightful stories.
- Want to impact business decisions through evidence gathered from data.
- Want to inculcate 21st century competencies and build a strong career through them.
- Want to keep pace with a business world that's becoming increasingly data-driven.

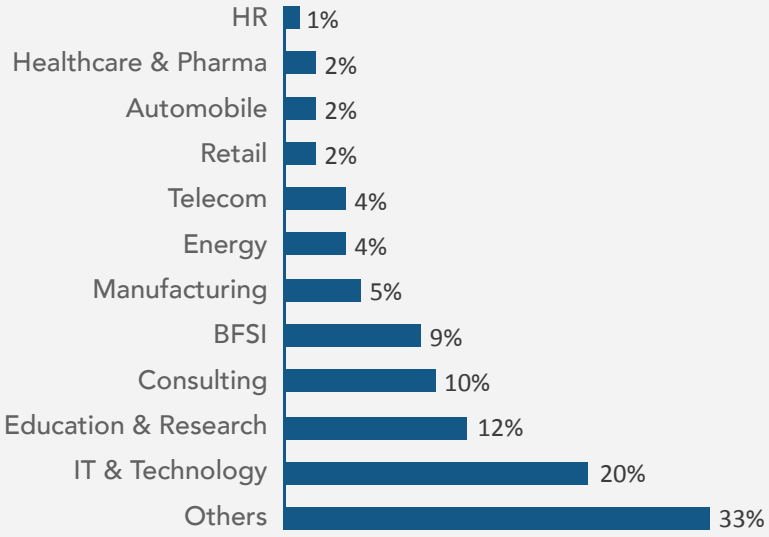
Overall, the program will help you:

- Transition to a career in data science and analytics.
- Lead and implement changes in data at your own company.

Past Learner Profiles

Each of the cohorts represent a diverse mix of work experience, industries, and geographies - guaranteeing a truly global and eclectic learning experience. Below is an indicative mix of where past learners have come from.





★ "By learning analytics, I wanted to open up my job opportunities to other industries, so that my economic stability does not depend on a particular market."
- Juan Carlos Vega

★ "I wanted the opportunity to be a part of my bank's transformation with data analytics."
- Candice Ling

★ "Majority of businesses tend to collect data but fail to recognize it as a resource for business growth. I want to grow my knowledge and apply it in a consulting environment to start assisting corporates to recognize the power of data."
- Brian Julian Cassel

The Best of Industry and Academia

The program brings together the best academicians and industry experts to give you a practical understanding of core concepts. While varied in their experiences, they are all motivated by the common goal of inspiring a love for data and analytics in you.

Faculty Profiles

Dr. Kumar Muthuraman
Faculty Director, Center for Research and Analytics, McCombs School of Business, The University of Texas at Austin. H. Timothy (Tim) Harkins Centennial Professor. MS & Ph.D.

Dr. Dan Mitchell
Assistant Professor, McCombs School of Business
Ph.D., The University of Texas at Austin.

Dr. Abhinanda Sarkar
Academic Director, Great Learning
Ph.D., Stanford University

Raghavshyam Ramamurthy
Industry Expert in Visualization
MBA, Whitman School of Management

Vivekanand R
Industry Expert in Visualization
MBA, Monash University

Mentor Profiles

Serdar Cellat
Principal Data Scientist,
Liberty Mutual Insurance (USA)

Nitish Jaipuria
Strategist (Data Science),
Google (Singapore)

Dale Seema
Data Science Specialist,
FNB South Africa

Wole Ogungbesan
Director-Advance Analytics & Automation,
UBS (United Kingdom)

To access more mentor profiles and details on the mentored learning model, please get in touch with a Program Advisor at **dsba.utaustin@mygreatlearning.com**

Course Curriculum

MODULE 0

Pre-work

Learn the fundamentals of Python and programming to lay the foundations on which the rest of the course will be built. The module is released on enrollment.

MODULE 1

Python Foundations

Build the foundational skills for data analysis with Python, such as importing, reading, manipulating, and visualizing data.

Sample Project 1

Perform exploratory data analysis to understand the popularity trends of movie genres and derive patterns in movie viewership.

SELF-PACED

Data Visualization with Tableau

Master the fundamentals of communicating information efficiently to business users via information graphics. Learn to recognize visual characteristics of data, choose appropriate display mechanisms, and transform data into actionable insights through Data Visualization with Tableau.

Sample Project

Create interactive dashboards using Tableau's data visualization tools to provide policy-level insights to the CEO of an insurance company.

Key Learning Outcomes

- Build your expertise in the most widely-used analytics tools and technologies.
- Develop the ability to independently solve business problems using analytics and data science.
- Understand the applications and implications of data science in different industries.
- Learn how to extract strategic business insights from data and efficiently communicate them to stakeholders.
- Build models to predict future trends and use them to inform business strategy.
- Build a substantial body of work and an industry-ready portfolio in data science and analytics.

Course Curriculum

MODULE 2

Business Statistics

Understand the role of statistics in helping organizations take effective decisions, learn its most widely-used tools and learn to solve business problems using analysis, data interpretation and experiments.

Sample Project 2

Help an insurance agency identify important patterns in data through statistical methods.

MODULE 3

Supervised Learning Foundations

Explore the fundamentals of Supervised Machine Learning, its key concepts and types. You will also learn how to pre-process data to prepare it for modelling.

Sample Project 3

Utilise historical data of a banking firm's loan defaulters to predict expected loss for a given customer.

MODULE 4

Supervised Learning Classification

Learn the conceptual frameworks of building classification models for accurate prediction in business contexts through popular ML approaches such as Logistic Regression and Decision Trees.

Sample Project 4

Identify potential loan customers for a bank by building a classification model that identifies candidates with a higher probability of purchasing a loan.

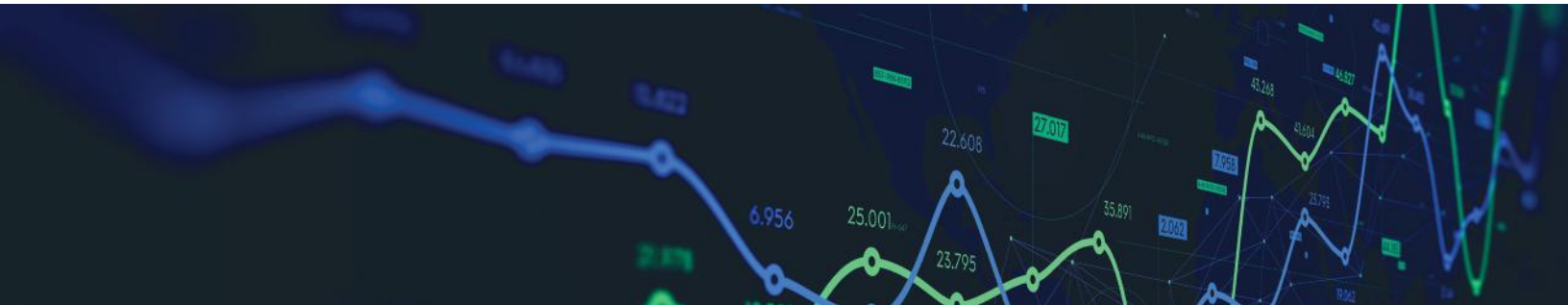
MODULE 5

Ensemble Techniques

Ensemble methods help to improve the predictive performance of Machine Learning models. In this course, you will learn about Ensemble methods such as 'Random Forest' that combine several Machine Learning techniques into one predictive model in order to decrease variance, bias, or improve predictions.

Sample Project 5

Build a model to assist the marketing team of a company in identifying potential customers for a term deposit subscription.



Course Curriculum

MODULE 6

Model Tuning

Model building is an iterative process. Employing Feature Engineering techniques along with a careful model selection exercise helps to improve the model. Further, tuning the model is an important step to arrive at the best possible result. This module talks about the steps and processes around these.

Sample Project 6

Perform Feature Engineering and Model Tuning on a model designed to predict the strength of construction material to enhance accuracy.

MODULE 7

Unsupervised Learning

Unsupervised Learning finds hidden patterns or intrinsic structures in data. In this course, you will learn about commonly-used clustering techniques like K-Means Clustering and Hierarchical Clustering.

Sample Project 7

Identify different segments from a bank's existing customer pool based on their spending patterns as well as past interactions with the bank.

Self-Paced Modules

MODULE 8

Time Series Forecasting

Time Series Analysis is used for prediction problems that involve a time component. In this module, you will build foundational knowledge of Time Series Analysis in Python and its applications in business contexts.

MODULE 9

Marketing and Retail Analytics

Learn the applications of data analytics to Marketing and Retail. Understand how marketing analytics can be utilized to further marketing objectives and measure, improve, and predict performance.

MODULE 10

Web and Social Media Analytics

Learn how the data collected from websites and social media can be used to make business decisions through different types of web and social media analytics.

MODULE 11

Supply Chain & Logistics Analysis

Learn how supply chain analytics can help businesses predict future demand, decide on inventory, understand customer needs, and optimise business costs.

MODULE 12

Finance And Risk Analytics

Learn the applications of data analytics in Finance and Risk Management such as fraud detection, credit risk, probability of default modeling, etc.

**Note - All Self-paced modules have end-module projects but do not consist of mentor-led sessions.*

Please get in touch with a Program Advisor for a detailed module-wise breakdown of the course curriculum.

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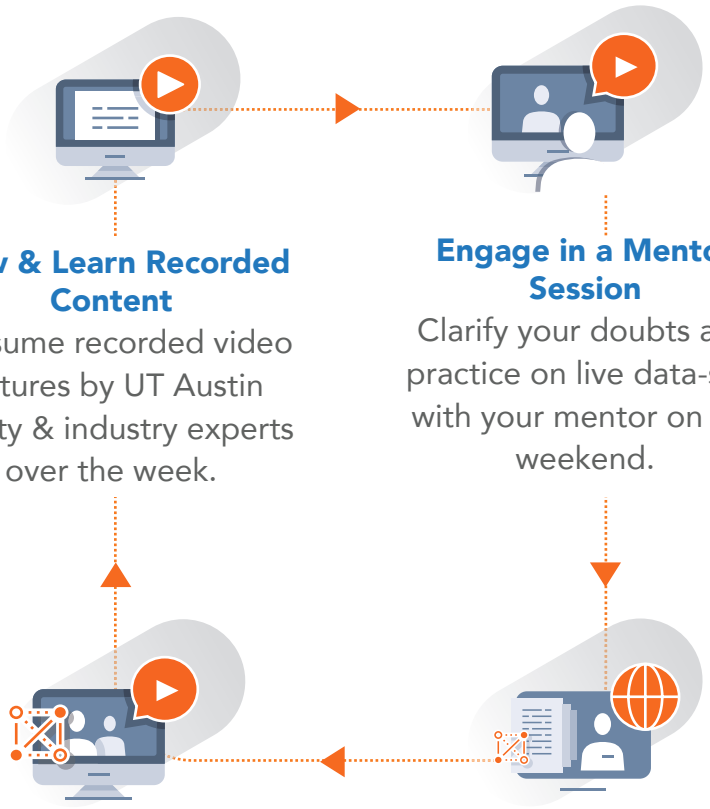
A Structured Learning Journey



View & Learn Recorded Content

Consume recorded video lectures by UT Austin faculty & industry experts over the week.

Engage in a Mentor Session

Clarify your doubts and practice on live data-sets with your mentor on the weekend.

Complete a Hands-On Project

Work on a real-world problem to apply concepts and techniques learnt in the module.

Participate in Webinars by UT Austin

Get an insiders' perspective into the industry through webinars with leading UT Austin faculty every month.

Program Manager: Your Personal Guide

Your Program Manager is your single point of contact for all academic and non-academic queries. Whether you are stuck on a topic or get a sudden request for work travel, the Program Manager will hand-hold and guide you through all situations, leaving no query unanswered. They will also keep a track of your learning journey and will give you personalized feedback and required nudges to ensure your success.

Advance Your Career with Comprehensive Career Support

When you are beginning afresh in a field, insights from someone on the inside can help you get a headstart. Apart from the immediate result of landing a job, career coaches work with you on the long haul – building your strengths, working on gaps, and developing a strategy to achieve your career goals.

Land your dream job with:

1-on-1 Career Sessions
Interact personally with industry professionals to get valuable insights and guidance.

Resume & LinkedIn Profile Review
Present yourself in the best light through assets that truly showcase your strengths.

Interview Preparation
Get an insiders' perspective to understand what recruiters look for.

e-Portfolio
Build an industry-ready portfolio to showcase your mastery of skills and tools.

Our Alumni Work at:

Google
BARCLAYS
BOEING
accenture
IBM
EY Building a better working world
amazon.com
Deloitte.
citigroup
Microsoft
Deutsche Bank
nielsen
PayPal
Walmart

and many more...

Admissions Process

To be eligible, you should possess a bachelor's or undergraduate degree with at least 50% aggregate marks or equivalent. No programming experience required.

Application Form
Register by filling up the online application form. The program follows a rolling process, so we encourage you to apply early.

Shortlisting and Panel Review
A panel will review your application to determine your fit with the program. They will evaluate you on your academic performance, work experience, and motivation.

Interview / Screening
If shortlisted, you will go through a telephonic screening interview (This may be waived for candidates with strong profiles and experience).

Admissions Offer
After a final admissions committee review, you will receive an offer for a seat in the upcoming cohort of the program.

Program Fee

USD 3500

Please get in touch with a Program Advisor for flexible payment options.

Program Partner

McCombs School of Business at the The University of Texas at Austin is collaborating with Great Learning to deliver this program in Data Science & Business Analytics to learners from around the world.

greatlearning
Power Ahead

Great Learning is an ed-tech platform with a mission to enable career success for professionals in the digital economy. It offers industry-relevant programs across a wide set of domains, with over 25,000+ learners from 140+ countries.

Ready to Advance Your Career?

Apply Now

Speak to a Program Advisor

Have questions about the program or how it fits in with your career goals?

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