

# HARNESS THE POWER OF DATA

Master of Technology in  
**Enterprise Business  
Analytics**

Available as  
**Stackable Graduate Certificate  
Programme in Data Science**

# Master of Technology in Enterprise Business Analytics

The NUS Master of Technology in Enterprise Business Analytics programme is designed to meet the industry demand for data scientists who can enable organisations achieve improved business outcomes through data insights. It is best suited for professionals who wish to enhance their existing skill sets to progress from the entry level to specialist or expert level positions in the data science and business analytics domain.

The programme prepares the candidates for specialist, expert and leadership roles in enterprise business analytics to create business value through strategic use of data, visualisation methods, modelling techniques and frontline tools.

## Programme Delivery

MTech EBAC candidates must successfully complete 2 mandatory graduate certificates from the fundamental areas, 2 of 4 graduate certificates from the specialist areas as well as complete a capstone project. Students are evaluated through a combination of course work, project work and examinations.

- Recognition:**
- Top student is awarded the IBM Medal and Book Prize
  - Best Project Prize

## Who Should Apply

- IT professionals who wish to carve a new career in the area of analytics
- Research professionals in quantitative disciplines, who wish to increase proficiency in the area of business analytics
- Marketing professionals who wish to leverage data for better targeting and achieve increased business growth
- Data and business analysts who are interested to upskill or cross-skill in the field of business analytics
- Individuals who would like to incorporate data analytics for planning, forecasting, increasing productivity and better decision making

## Admission Criteria

- Bachelor's degree preferably in Mathematics, Statistics, Econometrics, Management Science, Operational Research, Science or Engineering, and a grade point average of at least B
- Proficiency in the English Language (written and spoken)\*
- Have passed an entrance test
- Preferably two years relevant working experience
- Have received a favourable assessment at admissions interview conducted by NUS-ISS

*\*Applicants whose native tongue and medium of university instruction is not in English should submit their TOEFL or IELTS score as evidence of the proficiency in English*

TOEFL	IELTS
<ul style="list-style-type: none"><li>• Paper-based test (580)</li><li>• Computer-based test (237)</li><li>• Internet-based test (85)</li></ul>	<ul style="list-style-type: none"><li>• Result of 6.0</li></ul>

## How To Apply



All applicants are required to apply online via the Graduate Admission System (Coursework). Come and find out more about the MTech programmes at our info sessions. Visit [www.iss.nus.edu.sg/graduate-programmes](http://www.iss.nus.edu.sg/graduate-programmes) for more details. We conduct in-country entrance tests and interviews in selected countries.

Semester 1	Semester 2	Semester 3		Semester 4		Part-time
Semester 1				Semester 2		Full-time
Fundamental Areas		Specialist Areas				
<b>Analytics Project Management &amp; Delivery</b>	<b>Core Analytics Techniques</b>	<b>Customer Analytics</b>	<b>Big Data Processing</b>	<b>Practical Language Processing</b>	<b>Advanced Predictive/Prescriptive Modelling Techniques</b>	
Statistics For Business II	Statistics Boot Camp II	Customer Analytics	Big Data Engineering for Analytics	New Media and Sentiment Mining	Complex Predictive Modeling & Forecasting	
Data Story Telling	Predictive Analytics – Insights of Trends and Irregularities	Advanced Customer Analytics	Recommender Systems	Text Processing Using Machine Learning	Product & Pricing Analytics	
Data Management for Analytics	Text Analytics	Campaign Analytics	Processing Big Data for Analytics	Conversational UIs	Analytics for Commercial Excellence	
Managing Business Analytics Projects	Data Analytics Process and Best Practice II					
<b>Graduate Certificate in Analytics Project Management</b>	<b>Graduate Certificate in Business Analytics Practice</b>	<b>Graduate Certificate in Customer Analytics</b>	<b>Graduate Certificate in Big Data Analytics</b>	<b>Graduate Certificate in Practical Language Processing</b>	<b>Graduate Certificate in Specialised Predictive Modelling &amp; Forecasting</b>	
					<b>← Capstone Project (Full-time) →</b>	
		<b>← Capstone Project (Part-time, 6 - 12 months) →</b>				
<b>Learning Outcomes</b> <ul style="list-style-type: none"><li>• Essential skills to manage small analytics projects, comprising of multiple stakeholders and data sources</li><li>• Reasonable understanding of the solution structure</li></ul> <b>Job Roles</b> <ul style="list-style-type: none"><li>• Data Analytics Manager</li><li>• Data Analytics Project Manager</li></ul>	<b>Learning Outcomes</b> <ul style="list-style-type: none"><li>• Essential skills to understand, design and solve analytics problems involving structured and unstructured data</li></ul> <b>Job Roles</b> <ul style="list-style-type: none"><li>• Business Analyst</li><li>• Senior Business Analyst</li><li>• Machine Learning Engineer</li></ul>	<b>Learning Outcomes</b> <ul style="list-style-type: none"><li>• Able to apply customer analytics, dimension reduction and clustering skills and apply them in the area of marketing and customer management, in domains including finance and insurance</li></ul> <b>Job Roles</b> <ul style="list-style-type: none"><li>• Customer Analyst</li><li>• Data Scientist</li><li>• Lead Analyst</li></ul>	<b>Learning Outcomes</b> <ul style="list-style-type: none"><li>• Able to work with big data</li><li>• Capable of understanding, designing and solving problems in the space of Big Data and Web</li></ul> <b>Job Roles</b> <ul style="list-style-type: none"><li>• Big Data Analyst / Developer</li><li>• Data Scientist</li><li>• Big Data Engineer</li><li>• Data Science Engineer</li></ul>	<b>Learning Outcomes</b> <ul style="list-style-type: none"><li>• Advanced skills in handling unstructured data and apply techniques for understanding opinions, predictive modelling with unstructured data, classification, chatbot creation etc</li></ul> <b>Job Roles</b> <ul style="list-style-type: none"><li>• Natural Language Processing Data Scientist</li><li>• Data Scientist</li><li>• Senior Data Scientist</li></ul>	<b>Learning Outcomes</b> <ul style="list-style-type: none"><li>• Advanced skills in predictive, prescriptive &amp; forecasting techniques applicable in the area of finance, health, manufacturing, government and many other domains to improve product and service design and delivery by optimising pricing and achieving service excellence</li></ul> <b>Job Roles</b> <ul style="list-style-type: none"><li>• Senior Consultant</li><li>• Lead Analyst</li><li>• Senior Data Scientist</li></ul>	

## Capstone Project in Data Analytics

Student projects for MTech EBAC students include 5 months of full-time engagement with the industry for full-time students, and 6-12 months for part-time students. Students are allowed to conduct their project as a team-based internship, if desired. The expected commitment for the project is minimum 30 man-days per team member. Students also attend a course, 'Data Science Solution Implementation', in parallel.

### Learning outcomes:

- Apply business analytics methods and techniques to solve identified business problems.
- Plan and execute business analytics projects by understanding business problems, identifying appropriate analytics techniques, and then applying data exploration, model building, testing and validating of results.

## Stackable Graduate Certificate Programme in Data Science

The Master of Technology in Enterprise Business Analytics is also available as Stackable Graduate Certificate Programme in Data Science. With this programme, Professionals, Managers and Executives (PMEs) can attain a series of NUS-ISS graduate certificates over a period of five years without disrupting your careers. You have the flexibility of studying at your own pace by taking the required modular courses that make up the graduate certificates to meet your needs. PMEs who do not wish to attain graduate certificate, graduate diploma or degree can continue to attend individual modular courses thus allowing you to gain the skills to meet your career needs.

Visit [www.iss.nus.edu.sg/stackable-programmes](http://www.iss.nus.edu.sg/stackable-programmes) to find out more.



## Testimonials

“

The programme challenged me to not only learn a wide variety of subjects from statistics, programming, machine learning and more within a short period of time, but also how I can apply what I have learned in my area of work through the practicum. The journey has helped me acquire invaluable skills and allowed me to stay relevant in the industry today.

**Eddie Sim**

Senior Manager, Skillsoft  
Master of Technology in Enterprise Business Analytics  
(MTech EBAC), Class of 2022

”

“

One thing that keeps the MTech EBAC programme unique is the right amalgamation of rich industry based experienced lecturers with a thoroughly researched academia suited for today's demand in terms of both skillset and relevancy. The course curriculum and lectures are undoubtedly top notch. The industry-based internship greatly helped me prepare to be well equipped for data science and business analytics roles.

**Bhabesh Senapati**

Senior Global Data Analyst, Publicis Groupe  
Business Analytics  
(MTech EBAC), Class of 2019

”

## Other Graduate Programmes by NUS-ISS

### Master of Technology in Intelligent Systems

Available as  
**Stackable Certificate  
Programme in  
Intelligent Systems**

### Master of Technology in Software Engineering

Available as  
**Stackable Certificate  
Programme in  
Software Engineering**

### Graduate Diploma in Systems Analysis

Available as  
**Stackable Certificate  
Programme in  
Digital Solutions Development**

## About NUS-ISS

Established in 1981, NUS-ISS nurtures digital talent for the industry through graduate education, executive education programmes, consultancy, applied research, and career services. NUS-ISS guides individuals and organisations to bridge future opportunities through a unique portfolio of multiple learning pathways such as blended learning and stackable programmes, leading the way in shaping the next curve of digital excellence.

It offers a wide spectrum of programmes in critical industry disciplines, such as digital leadership, software development, data science, artificial intelligence, cybersecurity, product management, smart health and digital innovation.

To date, over **166,000** digital leaders & professionals, **8,060** corporate clients organisations and **7,600** graduate programmes alumni have benefitted from NUS-ISS' suite of services.

**NUS-ISS** 25 Heng Mui Keng Terrace, Singapore 119615