

# Certificate in Business Analytics (CBA)

9 Months Weekend Programme



[www.nmimshyderabad.org](http://www.nmimshyderabad.org)

Admissions Open for Batch III







## About NMIMS

NMIMS, Hyderabad the newest member of the brand NMIMS University, aspires to impart enduring values to its various stakeholders through creation and dissemination of knowledge in management. Established in 2010, it is located in the happening city of Hyderabad, known as the Education hub and having the distinction of being the second largest city of IT exports from India. Entering its seventh year, the Institute remains deeply rooted to its commitment of building a legacy in impacting the organisations around by providing high quality professional talent. The institute believes in innovation and brings it to action by quickly responding to the rapidly changing business needs by adopting the best practices of leading global business schools. We go beyond the regular academic curricula with an emphasis on practice. Our students are given the opportunity to broaden their exposure through international Student Exchange Programmes. Our entrance test, NMAT by GMAC enables us to recruit potential talent that has the necessary skills needed to succeed in the 2 year programme and emerge with edge and confidence to tackle business challenges. Having successfully conducted National Research Conclaves and with AMBA accreditation under its belt, NMIMS, Hyderabad is poised for an exhilarating journey towards becoming one of the best B-School in the country

## Programme Overview

Business Analytics (BA) refers to the skills, technologies, applications and practices for continuous iterative exploration and investigation of past business performance to gain insight and drive business planning. Increases in computing power and the amount of data collected have led to the development and widespread adoption of analytics by numerous industries.

The proposed programme on Business Analytics will combine coursework on developing analytical thinking, introductory and advanced statistical concepts, and applications across wide section of industry and functional domains.

In partnership with SAS, a 5-day 'Statistical Business Analyst' programme will be conducted by SAS leading to SAS Certification as well. This program will be delivered by SAS at the end of the Certification Program offered by NMIMS. The students will be provided with the SAS course material and the necessary software package with validity over the training period.

## Rationale

Business Analytics has become a household term in the current scenario. Organizations across domains (retail, supply chain, finance, marketing, web, and social media to name a few) are gaining competitive advantage via analytics techniques. A recent study in 2016 (conducted jointly by Honeywell Process Solutions and KRC Research Inc.) indicates that 68% of the manufacturers are currently investing in data analytics

## Programme Objectives

- ▶ Create a breed of industry ready trained Analytics professionals
- ▶ Develop the talent that will take their organization's analytics capability to the next level
- ▶ Understand how analytics affect various functions including marketing and the supply chain, both now and in the future
- ▶ Appreciate the impact of analytics on the information industry and the external ecosystem for analytical and data services

## Unique Features of the Programme

- ▶ Course structure commensurate with industry expectations and reviewed by industry experts.
- ▶ Separate preparatory course module at the start to acclimatize participants to course rigours.
- ▶ Focus on current topics like big data, Hadoop and machine learning.
- ▶ Exposure to various tools like Hadoop, SAS, R, SPSS, Tableau, VBA and Microsoft Excel.
- ▶ Industry interaction

## For Whom

- ▶ Any Graduate with approximate 2 years of work experience
- ▶ Who would like to build career in Analytics

## PREPARATORY COURSE

Course	Sessions
Exploring Data Structures and Algorithms Via Python	05
Working with Excel VBA	04
Working with R (including basics of probability & statistics)	06
Relational Database Management Systems	05
<b>TOTAL</b>	<b>20</b>



## TERM 1

Big Data Management Using Hadoop	20
Statistics for Business Analytics	20
Data Visualization (Tableau)	10
SAS Training and Certification	20
<b>TOTAL</b>	<b>70</b>

## TERM 2

Course	Sessions
Machine Learning	20
Predictive Analytics - 1 (Multiple linear regression, regression diagnostics, other multivariate techniques)	20
Predictive Analytics - 2 (time series)	10
Prescriptive Analytics / Optimization	10
Financial Analytics	10
Marketing Analytics	10
HR Analytics	10
<b>TOTAL</b>	<b>90</b>



## TERM 3

Supply Chain Analytics	08
Web and Social Media Analytics	06
Retail and Pharma Analytics	06
Comprehensive project	20
<b>TOTAL</b>	<b>40</b>

\* The allotted total hours (for each term) also include time for lab sessions which respective course faculties can conduct as part of their courses.

\*\* Each session is of 1 hour 30 minutes

## NMIMS's 3 step process for success in Business Analytics for Decision support

1

**Descriptive Analysis** Evaluate the existing business scenarios. Identify questions and examine the data

### Descriptive Analytics

#### Descriptive Statistics

Sampling  
Mean, Mode, Median  
Standard Deviation  
Range and Variance  
Stem and Leaf Diagram  
Histogram  
Interquartile Range  
Quartiles, Frequency  
Distributions

2

**Qualitative Assessment** Perform a Strategic Analysis, Understand causalities and Interdependencies between the variables

### Predictive Analytics

#### Forecasting

Time Series  
Causal Relationship

#### Data Mining

Cluster Analysis  
Association Analysis  
Multiple Regression  
Logistic Regression  
Decision Tree Methods  
Neural Networks  
Text Mining

3

**Quantitative Estimation** Develop a formal computational model and develop inferences, estimates and predictions

### Prescriptive Analytics

#### Management Science

Linear Programming  
Sensitivity Analysis  
Integer Programming  
Goal Programming  
Non-linear Programming  
Transportation  
Logistics  
Optimization  
Heuristics  
Simulation Modeling





**Dr. Rajan Saxena**

Vice-Chancellor, NMIMS

## Vice Chancellor's Profile

Dr. Rajan Saxena was the Director of IIM, Indore, S.P. Jain Institute of Management & Research and Dean of Narsee Monjee Institute of Management Studies, Mumbai. He has been in management education since 1972 and has over 37 years of professional experience in management education, research, consulting and institution building.

## Director's Profile

Prof Yadav has been member of BoG, Indian Institute of Management (IIM Indore), Subject Matter Expert UPSC, Govt of India, UGC XI Plan Expert Committee member and Nominated Member of IITK-Senate, IIT Kanpur. Worked as researcher and consultants with organizations such as CREED (London), IVM (Amsterdam), World Bank, USAID & UNDP, Min. of Agriculture, Min of HRD, Army Management Services Board (AMSB) Min of Defence etc.



**Dr. Prithvi Yadav**

Director, NMIMS Hyderabad  
Ex-Professor, IIM

## Resource Persons

**Dr. Prithvi Yadav**, Director – NMIMS, Hyderabad  
Specialization: QT, Research Methods, Business Intelligence  
Qualification: M.Sc., Stat. Ph.D.

**Dr. Karunakar. B.**, Professor  
Specialization: Strategy and General Management  
Qualification: B. Tech, PGDM, Ph.D.

**Dr. R.J. Ramalinga Swamy**, Professor  
Specialization: Statistics  
Qualifications: M.A., M.Phil, Ph.D.

**Prof. S.P.R. Vittal**, Asst. Professor  
Specialization: Finance  
Qualification: M.B.A., (FPM -XLRI), Applied Finance Program (IIM Calcutta)

**Dr. Kavita Sasidharan Kulkarni**, Asst. Professor  
Specialization: Marketing  
Qualification: B.Sc., M.B.A., DST, M.Phil., Ph.D

**Dr. Subhredndu Bhattacharya**, Adjunct Professor  
Specialization: Economics  
Qualification: M.S (Physics, Electronics), M.S (History), M.S (Finance), Ph. D.(Economics)

**Dr. G Radhakrishna**, Associate Professor  
Specialization: Marketing  
Qualification: Ph.D., M.B.A., B.E.

**Dr. Y L N Kumar**, Associate Professor  
Specialization: HR  
Qualification: B.Com, MBA, Ph.D

**Dr. Sasmita Misra**, Asst. Professor  
Specialization: HR  
Qualification: M.A. (HRM), LLB, Ph. D.

**Prof. Sunny Kumar Singh**, Asst. Professor  
Specialization: Economics  
Qualification: FPM (IIM Lucknow), M.A. (Economics)

**Dr Pradipta Patra**, Asst. Professor  
Specialization: Operations Management  
Qualification: MSc Mathematics, FPM (Quantitative Techniques)

**Dr. Nivedita Sinha**, Asst. Professor  
Specialization: Finance  
Qualification: FPM (IIM Bangalore), BE Electrical Engg. (NIT Surat)

**Dr. Anup Raj**, Associate Professor  
Specialization: Marketing  
Qualification: PGDRM (IRMA), Ph.D

## Contacts

For further details on the program, you may please get in touch with our counselors whose contact details are given below and also take a look at our website [www.nmimshyderabad.org/academics/programs](http://www.nmimshyderabad.org/academics/programs)

SVKM'S

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Looking forward to your joining the program and reinventing yourself!