



ISB-CERTIFICATE PROGRAMME
IN BUSINESS ANALYTICS
BATCH 7: 2016-17

Business Analytics, indispensable in today's age of Big Data, is an optimal mix of Data Collection, Data Visualization, Data Management, Statistics, Machine Learning, Operations Research, Critical Thinking and, last but not the least, the Domain Knowledge. Being an interdisciplinary field, it creates insights and values in ways hitherto unheard of, to – Industry, Government and others - thereby providing a competitive advantage.

Using detailed survey data on the business practices and information technology investments of a large number of publicly traded firms is a big advantage. MIT and University of Pennsylvania scientists, Erik Brynjolfsson, Lorin M Hitt and Heekyung Hellen Kim find that firms greatly benefit from adopting Data Driven decision-making based on Business Analytics. The output, productivity, asset utilization, return on equity and market value for these firms are far superior to those firms that do not use Business Analytics.

Business Analytics and Data Scientists are here to stay and the demand can only increase.

Programme overview

The ISB-Certificate Programme in Business Analytics (CBA) is designed on a schedule that minimises disruption of work and personal pursuits. The programme is a combination of classroom and technology aided learning platforms. CBA is a rigorous and challenging programme. Participants will typically be on campus for a six-day schedule of classroom learning every alternate month, for a span of 12 months, which would ideally be planned to include a weekend.

In the month of no classroom connect; the classes will be conducted over a technology aided learning platform. The contact hours in this platform would be 24-hours a month and every alternate month. (Details shared in the programme calendar).

Benefits of business analytics

- Improving the decision-making process (quality and relevance)
- Speeding up of decision-making process
- Better alignment with strategy
- Realising cost efficiency
- Responding to user needs for availability of data on timely basis
- Improving competitiveness
- Producing a single, unified view of enterprise information
- Synchronising financial and operational strategy
- Increase revenues
- Sharing information with a wider audience

“Analytics and data are key tenets of our business at Everyday Health. They allow us to better analyse trends across our portfolio of health and wellness sites to create better, more insightful products and services for consumers, healthcare professionals and advertisers. Having more professionals skilled in big data is the key to the growth of any global organisation and the Business Analytics programme at the Indian School of Business will help produce these professionals.”

**Ben Wolin,
CEO and Co-Founder, Everyday Health**

S. No.	Item	CBA 1.0*	CBA 2.0**
1	Tenure of the programme	12 Months	15 Months
2	Online teaching hours	150	230
3	Total teaching hours	430	516
4	Class room days	30	36
5	Capstone project	During term 3 (Month 9)	After completion of courses (Month 13)
6	Preterm courses	Asynchronous Pre-reads	Synchronous modules (R, Python, Data Structures, RDBMS, Probability and Statistics)
7	Foundation Module	NA	Yes with Exams
8	Sessions on practicum and critical thinking	NA	Yes - 3 Full Modules
9	Big Data	Half Module	Full Module + 3 Hands on Tutorials
10	Specialized modules	NA	Yes (Retail Analytics, Supply Chain Analytics and Text Analytics)
11	Focus on Machine learning	Partial	Yes (Deep Learning & IOT)
	CBA 1.0*	Till Batch-6 (Feb, 2016)	
	CBA 2.0**	Batch 7 Onwards (Sep, 2016 Onwards)	

Programme calendar

**Commencement of
programme: 1 Aug, 2016**

**Classroom/tutorials/cases/TAL
(Technology Aided Learning):
1 Aug, 2016 to Jan, 2018**

**Projects and presentations:
Dec, 2017**

**Graduation ceremony:
Jan, 2018**



The participants will be on campus for a six-day schedule of classroom learning every alternate month, for a span of 12 months. The schedule will include full days of teaching and evenings will be used for guest lectures, projects and group work. Participants will be required to stay on campus during those classroom days.

SAS module is given and the fee would be based on the module selected.

Curriculum*

The comprehensive ISB-Certificate Programme in Business Analytics curriculum provides a framework through which participants learn to enhance their management skills, expand their knowledge of business analytics, and gain a strategic perspective of the retail industry. The programme's courses and the final project are designed around the real-world integration of business disciplines. Apart from these courses there are preparatory courses, which

will have to be completed before the programme begins.

Modules

- Statistical analysis:
 1. Estimation and testing
- Big Data
- Data collection
- Data visualization
- Business Fundamentals
- Text Mining
- Operations: 1. Simulation
- Statistical analysis 2: Regression modeling
- Machine Learning 1: Unsupervised learning
- Forecasting analytics
- Operations: 2. Optimisation
- Data mining: 2. Supervised learning
- Advanced topics in Machine Learning
- Marketing Analytics
- Retail Analytics
- Pricing Analytics
- Social Network Analytics

- Financial Analytics
- Practicum and Critical Thinking using Data
- SAS (optional)
- Capstone Project (for three months at the end of term 3)

What's New

- There is an additional half module on advanced topics on Machine Learning (Deep learning and IOT). (New)
- There is an additional module on retail analytics (customer analytics and supply chain analytics). (New)
- There is a full module on big data analytics with an additional set of 3 hands on tutorials on the same topic.
- Biggest attraction: Additional sessions on Practicum and critical thinking using data, which is equivalent of 3 modules. (New)
- Pre-term: RDBMS, Data structures and Algorithms, Python, R, Basic Statistics, Probability, (Course material + 3 online tutorials on each topic) (New)
- Capstone project will be undertaken at the end of third term for 3 months so that the students can fully devote their time for capstone project without any other course work during that period. Moreover by that time they would learn all the tools and techniques.

Eligibility

- The programme is designed for professionals who are already working in analytics to enhance their knowledge as well as for those with analytical aptitude and would like to start a career in analytics. Also, for those who need to use quantitative techniques to arrive at most effective decisions, will find this programme stimulating and challenging
- Targeted segment should have at least two years of work experience (desired experience is four to eight years). For profiles with exceptional qualifications, the experience criteria may be waived
- The applicant should have a bachelor's degree in engineering / masters in statistics mathematics etc. or an equivalent qualification in any discipline

- The participants would be spread across functions like marketing, operations, supply chain management, finance etc. and general management in various industries
- Freshers with an analytical bent of mind and superlative academic credentials would also be considered

Faculty

Leading faculty from global B-schools

Faculty director

Bhimasankaram Pochiraju,
Clinical Professor of Statistics and Executive Director-Applied Statistics and Computing Lab, Faculty Director-Certificate Programme in Business Analytics.

Faculty board

Sridhar Seshadri,
Senior Associate Dean and Professor of Operations Management, ISB

Bhimasankaram Pochiraju,
Faculty Director for Certificate Programme in Business Analytics, Executive Director, ASC Lab, ISB

U Dinesh Kumar,
Professor, Quantitative Methods and Information Systems IIM B

Dr. Shailesh Kumar,
Member of Technical Staff at Google

Student testimonials

"A 'Complete Diet' that provides all the nutrition required for a healthy Data Scientist, prescribed by the most eminent instructors and practitioners in the field of analytics."

Arun Prakash A
Statistical Analyst/ Data Scientist, Visual IQ.

"A beautifully crafted programme that balances regular and online course work to fit in with our work schedules and enhanced by opportunities to engage with leading faculty and outstanding peers."

Garima Jena

Vice-President, G3 Group

"The CBA is a career enriching programme that provides an ideal mix of key concepts and theory and hands on application through real case studies and datasets from industry."

Sneha Komma

Data Specialist, Google India (Global Logic Inc.)

"CBA programme has affected my approach towards looking at a problem and solving it more effectively. It has changed my perception that 'not all problems have a solution'. I've enjoyed being part of this programme."

Haneesh Reddy

Analyst Programmer - Accenture Services Private Limited

Programme fee

The fee for the programme is Rs. 7,50,000 plus service tax (as applicable). The fee covers the following:

- Admission fee
- Tuition fee
- Course material
- Accommodation and food on campus

Participants will have to bear the travel cost to attend classes and will have to procure their own laptops for the programme. Programme fee does not include reference books.

SAS fee would be extra as per the module selected.

Financing options

CREDILA

A subsidiary of HDFC Limited www.credila.com

AVANSE

A subsidiary of DHFL Limited www.avanse.com

Axis Bank

www.axisbank.com

For installment options please contact us.

“Analytics is an ever emerging, complex problem as the global data will expand exponentially. Big data and contemporary analytics are particularly germane to our solution set at One Ocean, and so we were of course, very pleased to see it covered in the certificate programme at the ISB, which led to our enthusiastic endorsement and participation. We believe that together, academia and industry can work hand-in-hand to build thought leaders to address today’s problems while cultivating tomorrow’s innovations.”

Don W. Davis,
President and Chief Executive Officer, One Ocean Corporation

Admission calendar

S. No.	Descriptions	Date
1	Applications open	25 Apr, 2016
2	Last date for receiving application	23 Jun, 2016
3	Online test*	25 Jun, 2016
4	Commencement of interviews	27 Jun, 2016
5	Final list of selected candidates	15 Jul, 2016
6	Blocking fees	As per the admission offer
7	First installment	As per the admission offer
8	Last installment	As per the admission offer
9	Commencement of programme	1 Aug, 2016



*GMAT/GRE/CAT scores can be considered as per the cut offs decided by the academic team. (For Online test exemption)



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