Mahindra™ University
Global Thinkers. Engaged Leaders.

SCHOOL OF MANAGEMENT

CURRICULUM OVERVIEW

BBA COMPUTATIONAL BUSINESS ANALYTICS

Academic Partner

Cornell
SC Johnson College of Business

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Dean & Professor of Entrepreneurship

Introduction to the School of Management

Mahindra University's School of Management aspires to be a new age business school, and will strive to achieve excellence across undergraduate and post-graduate levels. It will start off by offering undergraduate programs in finance, economics and business in 2021, and will launch Masters programs in multiple formats (full time, part time and modular) as well as a PhD program over the coming years. Besides fostering a student-centered learning environment, the School will seek to achieve excellence in both knowledge dissemination (teaching and writing for practitioners) as well as knowledge creation (research published in high quality international peer-reviewed journals).

Mahindra University is among the first institutions in the country to transform the way millennials are studying by combining AI and EI to optimize learning in each of its Schools. Mahindra University aims to energize, challenge and shape young minds to help them become "Global Thinkers. Engaged Leaders."

Introduction to the Program

According to IDC (idc.com), the global big data and analytics market was $189 billion in 2019, and was estimated to grow at 13% a year to reach US$274 billion. The Indian data analytics market in 2019-20 was estimated to be nearly US$36 billion[1], having grown at 19.5% during the year. It is expected to grow annually at 16% until 2025, to reach US$75 billion. These services included descriptive, predictive and prescriptive analytics, and were delivered in the form of data reporting, business intelligence, visualization and analysis to serve as a guide to decision making. The share of analytics in the IT and ITES industries is expected to grow from 19% in 2019-20 to 30% in 2024-25. The banking, financial services and insurance (BFSI) sector is the largest contributor of analytics revenue, followed by Marketing and eCommerce. In terms of cities, Bengaluru has the largest concentration of analytics companies, with Hyderabad ranked fourth.

[1] Study conducted by AIM Research in association with AnalytixLabs

The US contributed nearly 57% percent of the revenues for India based analytics companies, followed by the UK 9.7% and Australia 7.1%.

In terms of employment, the workforce in the analytics companies is employed i) 40% by large organizations (10,000+ employees) such as TCS, Infosys, Wipro, HCL Technologies, Tech Mahindra, IBM Global Services and Accenture, among others, ii) 30% by startup and growth stage companies (1-200 employees) and iii) the remaining 30% by mid-sized companies such as Mu Sigma, Fractal Analytics, Latentview Analytics, etc. The industry added 25,500 fresh graduates as employees in 2019-20, and 41% of the employees in the industry has less than 5 years work experience.

I. BBA Computational Business Analytics: Program Highlights

- ✓ Comprehensive business foundations (in finance, accounting, operations, marketing, OBHR, strategy)
- ✓ Specialize in business analytics with skills and tools required to be able to work with data scientists as well senior decision makers
- ✓ 3 week international immersion in Cornell University, Ithaca, NY
- ✓ Jointly offered by Mahindra University School of Management and the Ecole Centrale School of Engineering
- ✓ Focused on creating industry-ready graduates who can work in data rich industries such as retail (online and offline), fast moving consumer goods, banking, financial services and insurance (BFSI), consulting, travel and hospitality, etc.

II. Who should take this program?

- ✓ Students with PCM majors having a strong foundation in mathematics and statistics in high school.
- ✓ Students who enjoy programming and using tools such as Python, R, Visual Business Analytics
- ✓ Useful to those students who aspire to join Masters and PhD degrees in Business Analytics or related fields

III. Important Details

Eligibility Criteria	✓ The program is a math and statistics intensive degree focusing on ‘application of data science to businesses.

	✓ Students with any major in +2 with a minimum of 90% (specifically in mathematics and related topics such as Statistics) ✓ Good communication skills (verbal and written) will be helpful
Tuition Fee	4 Lac/Annum food, accommodation and international immersion will be extra

IV. Program outcomes

Building on a foundation of mathematics and statistics in high school, the student, at the end of the program, will have developed

- ✓ good analytical, statistical and problem-solving skills,
- ✓ the ability to communicate effectively with multiple stakeholders, and in particular act as a bridge between the data scientists and decision makers,
- ✓ knowledge and understanding of coding with a good grasp of programming language such as R, Python, Matlab, etc,
- ✓ data visualization skills, and the ability to use tools such as Tableau,
- ✓ the ability to make recommendations on what decisions to take based on the data analytics

V. Why Mahindra? Key Differentiators

- ✓ One of the very few programs of its kind in India that provides a solid grounding in business disciplines as well as in data science
- ✓ Only program with an IVY LEAGUE collaboration – Cornell faculty help in designing the program, will teach in the program and Cornell will host our students on their campus
- ✓ Only BBA program that is jointly offered by Mahindra University's sister schools: School of Management and the Ecole Centrale School of Engineering
- ✓ Focused on creating industry-ready graduates who can work in data rich industries such as retail (online and offline), fast moving consumer goods, banking, financial services and insurance (BFSI), consulting, travel and hospitality, etc.
- ✓ We also expect demand for the skills and competencies provided by this program to grow in the digital startup ecosystem and the burgeoning number of data analytics companies in India

VI. Curriculum Outline

Year 1: Semester 1	Year 1: Semester 2
Micro-Economics	Macro- Economics
Financial Accounting	Principles of Marketing-I (4Ps & Consumer Behavior)
Introduction to Statistics	Introduction to Finance
Principles of Management	Basics of Computers and Computing
Business Communication	Ethics, CSR and Sustainable Business
Spreadsheet Modeling for Decision Making	Database Management Systems with SQL
Critical Thinking	
Entreprenuership & New Venture Creation	
SUMMER: INTERNATIONAL IMMERSION IN CORNELL UNIVERSITY, ITHACA, NEW YORK	

Year 2: Semester 3	Year 2: Semester 4
Basic Econometrics with R	Programming with Python
Business Law	Principles of Ecommerce & Marketplaces
Foundations of Mathematics for Analytics	Finance - II (Financial Tech, Markets)
Management Information Systems	Management Consulting Methods
Digital Marketing & Social Media Engagement	Data Warehousing, BI and Visualization (Tableau)
Corporate Finance	Computational Statistics
SUMMER: INDUSTRY INTERNSHIP	

Year 3: Semester 5	Year 3: Semester 6
Analytics (Marketing and Finance) and Data Mining	Production & Operations Management
Leadership & Teamwork	Global Business
Strategy & Business policy	Capstone Course
Connected Technologies (IOT models, Cloud, Privacy)	AI and ML Approaches to Decision Making
TBD based on Industry Board inputs	Social Listening and Sentiment Analysis Tools

Data Collection, Games and Incentives	Advanced Topics in Analytics
STUDENT SKILL PORTFOLIO	