possibilities are being worked out). We are discussing with banks to provide educational loans to admitted participants.

14. WHAT ARE THE PASS / FAIL RULES?

Rules in a given semester will be those generally applicable in the host Institute of that semester.

15. WILL BE THERE ANY ATTENDANCE RULE?

Attendance rules that are applicable to the host Institute will be followed in each semester.

16. WHAT WILL BE THE CLASS HOURS AND **HOW MANY DAYS A WEEK?**

The hours and days will vary from semester to semester. The norms prevailing at the host institute would be followed.





17. WHOM DO I CONTACT IN CASE OF ANY **FURTHER DOUBTS?**

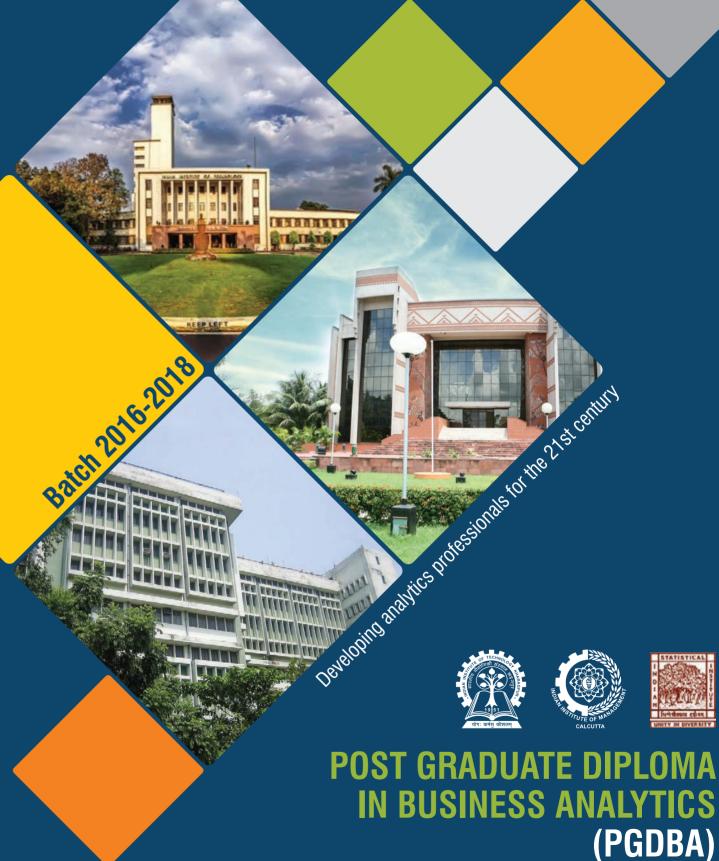
Mr. A.K. Ramtake, PGDBA office Vinod Gupta School of Management Indian Institute of Technology Kharagpur Kharagpur 721302

Email: pgdba@iitkgp.ac.in Phone: 03222-282312



CONTACT US

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Jointly offered by IIM Calcutta, IIT Kharagpur and ISI Kolkata

ABOUT THE PROGRAMME

The amount of data being produced and captured is increasing at an exponential rate. International Data Corp. (IDC) forecasts that data production will increase to 40 Zettabytes (or 40 billion terabytes) by 2020, 50 times more than in 2010. This enormous amount of data can be used by business enterprises to generate new insights, enable better decision making and improve processes of organizations. Business analytics refers to the analysis of data using statistical, machine learning and quantitative techniques with the purpose of understanding past performance of the business and generating new insights for the future. According to a forecast made by IDC, the global spending on business analytics services is expected to rise from US\$ 51.6 billion in 2014 to US\$ 89.6 billion in 2018. Despite the growing significance of business analytics, the supply of trained analytics professionals is lagging far behind the demand for such professionals. According to the McKinsey Global Institute, by 2018, the United States alone will lack about 140,000 to 190,000 workers with deep analytical skills and another 1.5 million managers and analysts who can utilize large data sets to make better decisions.

In India, the analytics market is expected to double between 2013 and 2018, reaching a figure of US\$ 2.3 billion by 2018, according to a report published by Nasscom and Blueocean Market Intelligence. There will be a shortage of about 200,000 data scientists in India over the next few years, according to sources in the Analytics Special Interest Group set up by NASSCOM. Hence, creation of trained industry-ready business analytics professionals is the need of the day.

The Post Graduate Diploma in Business Analytics (PGDBA) – jointly offered by IIM Calcutta, IIT Kharagpur, and ISI Kolkata – aims to help shape the emerging profession of business analytics by delivering a cutting edge inter disciplinary educational experience to graduate applicants with an aspiration of building a career in this field.

PGDBA is a two year full time residential diploma programme aimed at creating business analytics professionals employable by leading Indian and foreign firms. This programme is designed for those who have an analytical mindset, are interested in tackling challenging business problems, and possess an inclination towards mathematics. Some of the salient features of the programme include courses taught by reputed faculty members at the campuses of three globally renowned institutes, hands-on business analytics training at a related company, continuous interaction with industry leaders throughout the course of the diploma programme, and the availability of placement opportunities at all the three institutes jointly offering this programme.

PROGRAMME OVERVIEW

Students will visit the three institutions – Indian Statistical Institute Kolkata, Indian Institute of Technology Kharagpur, and Indian Institute of Management Calcutta. Each of the three institutes will focus on a separate area of business analytics, in accordance with its expertise and competence. While coursework at IIM Calcutta will focus on the application of analytics in functional areas, ISI Kolkata will bring to the table its expertise in statistical and machine learning theories for analytics, and faculty at IIT Kharagpur will engage with the technology aspects of analytics. In addition, the students will be required to do an internship of six months duration on an analytics project in a business organization. The programme is strictly residential for the components at IIT Kharagpur and IIM Calcutta. Residential requirement is not mandatory for ISI Kolkata. Each institute will arrange board and lodging arrangements for the students subject to availability.

Students successfully graduating from the programme will be expected to join organizations working in the area of analytics. Those interested in higher studies may pursue doctoral or other advanced studies in areas related to analytics.

PARTNERING INSTITUTIONS

IIT KHARAGPUR

The Indian Institute of Technology (IIT) Kharagpur was established by the government of India in 1951. The first of the IITs to be established, it was recognized as an Institute of National Importance in 1956. From a modest start with 224 students and 42 teachers, IIT Kharagpur has become one of the top educational hubs in the country with 18 academic departments, five centers of excellence and about 550 faculties. IIT Kharagpur is widely recognized for spearheading new standards in engineering education. The institute has also made significant contributions towards various spheres of national development from the strategic sectors of Defense, Space and Atomic energy to the Economic, Public and Development sectors that directly or indirectly touch the lives of all the citizens of India.



IIM CALCUTTA

The Indian Institute of Management (IIM) Calcutta was established as the first national institute for Post-Graduate studies and Research in Management by the Government of India in November 1961. Over the years, IIM Calcutta has grown into a mature institution with global reputation, imparting high quality management education. It has been playing a pioneering role in professionalizing Indian management through its Post Graduate and Doctoral level programmes, Executive Training Programmes, Research and Consulting Activities. Its continued focus on excellence, eminent faculty, strong alumni base and ties to the business community have made IIM Calcutta one of the best business schools in Asia.



ISI KOLKATA

Indian Statistical Institute (ISI) is a globally reputed institution devoted to the research, teaching and application of statistics, natural sciences and social sciences. Founded by Professor P.C. Mahalanobis in Kolkata on 17th December 1931, the institute gained the status of an Institute of National Importance by an act of the Indian Parliament in 1959. The Headquarters of ISI is located in the northern fringe of Kolkata. Additionally, there are four centers located in Delhi, Bangalore, Chennai and Tezpur. While teaching and research in statistics and related disciplines are the primary activities of the institute, it is also involved in projects and consultancy in such areas as Statistical Quality Control and Operations Research.



TENTATIVE COURSE LIST

Pre-semester module

(at IIM Calcutta)

- Contemporary business analytics
- Financial management
- Marketing management
- Organizational behavior

Semester I (at ISI Kolkata)

- Stochastic processes and applications
- Statistical structures in data
- Inference
- Computing for data sciences
- Fundamentals of database systems

Semester II (at IIT Kharagpur)

- Regression and time series models
- Foundations of algorithm design and machine learning
- Modeling in operations management
- Flective I
- Elective II
- Elective III
- Data Science Laboratory

Semester III (at IIM Calcutta)

- Categorical data analysis
- Business data mining
- Business economics
- Project management
- Strategic management
- Human resource management
- Managerial communication
- Elective IV
- Elective V
- Elective VI
- Elective VII

Semester IV

Project / Internship

Semester 2: Elective – I

(Any one from the following list)

- Enabling technologies for data analytics
- Information retrieval
- Cloud computing
- Complex network

Semester 2: Elective – II & III

(Any two from the following list)

- Optimization and business decision analysis
- Analytics for ventures / Venture analytics
- Product analytics
- Business accounting and banking analytics
- Basics of marketing analytics
- Business model analytics
- Healthcare analytics
- Supply chain analytics
- Conversational analysis
- Ethical and legal considerations in business analytics

Semester 3: Elective – IV

(Any one from the following list)

- Analytics in business forecasting
- Selected aspects of advanced predictive modeling
- Econometric methods with applications in business and economics

Semester 3: Elective – V, VI &VII

(Any three from the following list)

- Consumer analytics
- Applied marketing research
- Financial risk management
- Financial statement analysis
- Computational finance
- High frequency finance and news analytics
- Advanced spreadsheet modelling
- Business process management
- Pricing and revenue optimization
- Analytical tools in demand management
- Manufacturing analytics
- Legal aspects of data mining

PROGRAM CALENDAR

IIMC	Orientation programme	20 June - 24 June 2016
IIMC	Pre-semester module	27 June - 29 July 2016
ISI	Semester 1	01 August - 15 Dec 2016
IIT	Semester 2	02 Jan - 10 May 2017
IIM	Semester 3	06 June - 30 Oct 2017
Industry Internship	Semester 4	01 Nov 2017 - 30 Apr 2018

MINIMUM ELIGIBILITY CRITERIA FOR PGDBA

A candidate must hold a graduate/post graduate degree with any of the following:

- (I) 10+2+4: Minimum of 60% marks in the BS/BTech/BE or equivalent Level
- (ii) 10+2+5: Minimum of 60% marks in the Integrated Masters or equivalent Level
- (iii) 10+2+3+2: Minimum of 60% marks in the Masters Level

For SC/ ST and Differently Abled (DA) category candidates, the qualifying marks for eligibility shall be 55%.

Candidates, who are in the final year, are also eligible to apply provided they appear in the final examination and complete other academic requirements as specified above by May 31, 2016.

For such cases, admission will be provisional subject to meeting the 60% for General / OBC category candidates and at least 55% aggregate marks or equivalent for SC/ST and DA category candidates. Proof of having passed the qualifying degree with required eligibility, as specified above should be submitted by October 31, 2016.

WRITTEN TEST AND PERSONAL INTERVIEW

A written test will be held on February 14, 2016, to shortlist candidates for personal interviews. Candidates shortlisted after the written test will be called for personal interview to be held in March, 2016. The final offer would be made on the basis of performance in the written test, personal interview, work experience, and academic background.

Syllabus for Written Test

Section A:

Verbal Ability (Reading & Comprehension; Grammar/correction of sentences) and

Logical Reasoning Section B:

- (i) Data Interpretation (LRDI): Data driven questions (pie charts, graphs, trends)
- (ii) Quantitative Aptitude: Sets, combinatorics, Algebra (solutions of quadratic equations, inequalities, simultaneous linear equations, binomial theorem, series, AP, GP, HP, matrices) Euclidean geometry, Coordinate geometry (lines, circles, conic sections) Trigonometry (triangles, trigonometric identities, heights and distances) Calculus (functions, limits, continuity, derivative, maxima & minima, methods of integration, evaluation of areas using integration).

Cities for Written Test and Personal Interviews are: Kolkata, Mumbai, Delhi, Bangalore, Chennai

RESERVATION

As per Government of India stipulations for SC/ST/OBC (NCL) and Differently Abled (DA) candidates.

HOW TO APPLY

 Eligible candidates are requested to apply online at http://www.iitkgp.ac.in/pgdba.



- Self-attested copies of all requested documents should be uploaded.
- Application fee of Rs.2000/- (Rs.1000/- for candidates belonging to SC/ST/DA categories) has to be paid through the Payment Gateway at IIT Kharagpur's Online Portal (SBIMOPS) at the time of final submission of application.
- Last date of submission of online application: December 27, 2015.
- In case of inquiries, please send an email to: pgdba@vgsom.iitkgp.ernet.in, or Call 03222-282312.

PROGRAM FEES

The programme fee for the 2-year programme for the 2016-18 batch is Rs 16.20 lakhs. The fee needs to be paid in four equal installments at the time of registration for each semester. Late payment of fees will incur penalties as per the policy of each Institute. The fees will cover tuition, on-campus lodging, books, study materials, examination materials, and laboratory charges, among others. Programme fee will not cover caution money, food related expenses, and any travel expenses that the students may incur in Semester 4 when they visit any industrial location.

SCHOLARSHIPS

There is liberal provision for merit-cum-means scholarships for deserving candidates (partial fee waiver possibilities are being worked out). Banks may provide educational loans to admitted participants.



IMPORTANT DATES

- Date of advertisement: November 23, 2015
- Last date of submission of online application: December 27, 2015
- Sending call letter for Written Test (email): January 15, 2016
- Written Test: February 14, 2016
- Announcement of short-listed candidates and sending call letter (email) for personal interview: March 7, 2016
- Personal interview for short-listed candidates: March 27-28, 2016
- Announcement of final offer: On or before April 15, 2016
- Date of admission: June 15, 2016
- Commencement of PGDBA program: June 20, 2016

Some FAQS

1. WHAT IS PGDBA?

The PGDBA is a 2-year full-time Post Graduate Diploma in Business Analytics (PGDBA) jointly offered by IIM Calcutta, IIT Kharagpur and ISI Kolkata.

2. FOR WHOM IS PGDBA SUITABLE?

PGDBA is a two-year full time diploma programme aimed at creating business analytics professionals employable by leading Indian and foreign firms. This programme is designed for those who have an analytical mindset, are interested in tackling challenging business problems, and possess an inclination towards mathematics. Some of the salient features of the programme include courses taught

by reputed faculty members at the campuses of three globally renowned institutes, hands-on business analytics training at a related company, continuous interaction with industry leaders throughout the course of the diploma programme, and the availability of placement opportunities at all three institutes jointly offering this programme.

3. WHAT WOULD I LEARN AT IIMC, ISI AND IIT KHARAGPUR?

PGDBA participants will visit the three institutions – Indian Statistical Institute Kolkata, Indian Institute of Technology Kharagpur, and Indian Institute of Management Calcutta – spending about six months at each institute. Each of the three institutes will focus on a separate area of business analytics, in accordance with its expertise and competence. While coursework at IIM Calcutta will focus on the application of analytics in functional areas of management, ISI Kolkata will bring to the table its expertise in statistical and machine learning theories for analytics, and faculty at IIT Kharagpur will engage with the technology aspects of analytics.

4. HOW DO I APPLY?

Eligible candidates are requested to apply online at http://www.iitkgp.ac.in/pgdba.

Self-attested copies of all requested documents should be uploaded.

Application fee of Rs.2000/- (Rs.1000/-for candidates belonging to SC/ST/DA categories) has to be paid through the Payment Gateway at IIT Kharagpur's Online Portal (SBIMOPS) at the time of final submission of application. Last date of submission of online application: December 27, 2015

5. WHAT IS THE SELECTION PROCESS FOR ADMISSION INTO PGDBA?

A written test will be held on February 14, 2016, to shortlist candidates for personal interviews. Candidates shortlisted after the written test will be called for personal interview to be held in March, 2016. The final offer would be made on the basis of performance in the written test, personal interview, work experience, and academic background.

6. WHAT IS THE DURATION OF THE PROGRAMME?

The PGDBA is a 2-year full-time Post Graduate Diploma in

Business Analytics (PGDBA) jointly offered by IIM Calcutta, IIT Kharagpur and ISI Kolkata.

7. HOW MANY SEATS ARE THERE IN PGDBA IN 2016-18?

There are a maximum of 60 seats in PGDBA in 2016-2018.

8. IS RESERVATION POLICY APPLICABLE FOR PGDBA IN 2016-18?

Yes, the reservation policy of the Government of India is applicable for PGDBA in 2016-2018.

9. IS CAMPUS PLACEMENT AVAILABLE FOR PGDBA?

The graduating students will have access to campus placement facilities of all three institutes. The institutes do not guarantee placement but every effort will be made to help students find and secure opportunities for furthering their career.

10. WHO WILL BE GIVING THE DEGREE? WHEN AND WHERE WILL BE THE CONVOCATION HELD?

Post Graduate Diploma in Business Analytics will be given jointly by IIM Calcutta, IIT Kharagpur and ISI Kolkata. A candidate can receive his/her diploma at the convocations held at any of the three institutes during the year after the completion of all requirements for the diploma.

11. IS THE PGDBA PROGRAMME FULLY RESIDENTIAL?

The PGDBA programme is strictly residential. Each institute will make the best effort to arrange board and lodging for the students during the period they spend on campus, subject to availability.

12. IS THERE ANY INTERNSHIP AS PART OF THE PGDBA PROGRAMME?

In addition to the time spent at IIMC, ISI, and IIT Kharagpur, the students will be required to do an internship based project of six months on a hands-on analytics experience at a business organization.

13. ARE SCHOLARSHIPS AND BANK LOANS AVAILABLE?

There is liberal provision for merit-cum-means scholarships for deserving candidates (partial fee waiver