



assam don bosco university



Ph D Programme  
2013

## □ Assam Don Bosco University

The Assam Don Bosco University, set up by the world wide Don Bosco Society, was established as the first State University of Assam in the private sector by the Assam Don Bosco University Act. Established on 29th March 2008, it aims to mould intellectually competent, morally upright, socially committed and spiritually inspired persons at the service of India and the world, by imparting holistic and personalized education.

To achieve this vision, the University strives to ensure excellence in the teaching, learning and evaluation process, in research, consultancy and extension programmes, in continuous and on-going evaluation of every process in the system, in a holistic approach to education geared to an all-round development of dependable human beings.

## □ Academic Programmes on Campus

The University focuses its teaching, research and consultancy on three core areas: technology sector, service sector and social sector. These areas of interest have been chosen because they focus on cutting-edge contemporary technology, ensure the employability of its graduates and their capacity to become innovative entrepreneurs and equip them with the skills to impact and transform their society.

## □ Don Bosco College of Engineering and Technology

Don Bosco College of Engineering and Technology (DBCET) is the first constituent college of the School of Technology of Assam Don Bosco University, and its programmes are approved by AICTE (F. No. Eastern/1-746349432/2012/EOA dated 10 May 2012).

The College is set in an environment of beautifully laid out gardens and lush green lawns on the Guwahati Airport Road at Azara – a residential suburb of Guwahati. Fully equipped to cater to 1600 students, the college is



admired for its dedicated and experienced faculty, outstanding infrastructure, classrooms and labs, comfortable hostel accommodation, brisk training and placement activity, and ample co-curricular and extra-curricular activities.

Don Bosco University offers the following academic programmes at Don Bosco College of Engineering and Technology:

### **Graduate Programmes**

Bachelor of Technology (B Tech) in the following disciplines:

- Computer Science and Engineering
- Electronics and Communication Engineering
- Electrical and Electronics Engineering
- Civil Engineering
- Mechanical Engineering

### **Post Graduate Programmes**

- Master of Computer Applications (MCA)
- Master of Technology (M Tech) in
  - » Electronics and Communication Engineering
  - » Computer Science and Engineering
  - » Electrical and Electronics Engineering

## Don Bosco Institute of Management

Don Bosco Institute of Management, a centre for Human Development, Leadership and Training, is a project of the Don Bosco Society. Established with a mission to nurture dreams and shape lives, to awaken latent potential, and stoke the passion for excellence, Don Bosco Institute of Management opens new horizons of opportunity for the young people of the North East.



Assam Don Bosco University offers an AICTE approved (F No. Eastern/1-692528001/2012/EOA dated 10 May 2012) postgraduate programme in Business Administration leading to the MBA degree at Don Bosco Institute of Management.

## □ Don Bosco Institute of Social Sciences

Don Bosco Institute of Social Sciences aims at enhancing human knowledge in all spheres of Social Sciences through academic programmes, research studies and extension activities. The Department of Social Work has a clear objective of enabling young men and women to study the social issues and problems of the country and empowering a team of committed professionals – social workers, community builders, health activists, counselors and facilitators.

Assam Don Bosco University offers the following academic programmes under Don Bosco Institute of Social Sciences:

- Master of Social Work (MSW)
- Master of Science in Psychological Counselling
- Post Graduate Diploma in Child Rights and Development (PGDCRD)

## □ Academic Programmes Online

Launched in January 2011, the on-line education portal of the university, under the Centre for Online and Distance Education (CODE), christened 'DBU Global', offers eight courses in management and technology. A variety of certificate, diploma and degree programmes are on the anvil in such divergent areas as child rights, environment sciences, financial markets management, teacher education, comparative religion, North-East India Studies, etc. Details of these programmes are available at [www.dbuglobal.com](http://www.dbuglobal.com)

## □ Research Programmes

Assam Don Bosco University has set for itself a clear mission of playing a leading role in research and scholarship. The University has a vibrant research programme leading to the degree of Ph D in several thrust areas in the following departments: Chemical Sciences, Physics, Electrical and Electronics Engineering, Electronics and Communication Engineering, Computer Science, Civil Engineering, Biotechnology, Social Work, North East India Studies, Comparative Religion, Business Administration, Language Studies and Mass Communication. There are also scholars pursuing post doctoral studies in the University.



**Preamble**

Higher education and research constitute the backbone of University systems as they focus on the promotion of the human mind, the search for truth, the development of knowledge specialists, the evolution of culture, and the betterment of life in all its myriad manifestations.

While graduate education is largely geared to raise the level of employability of students, training them to play leadership roles in providing the services on which a developed society depends, such as chemists, accountants, nurses, social workers, psychologists, professors, teachers, and business managers, research is central to our survival and advancement in a digitalized, knowledge-based, global economy.

Following the time-hallowed traditions of the great universities of the world, this University seeks to make itself a centre for culture, knowledge, research, intellectual ferment, for critical thinking and analysis of whatever shapes and impacts human life, a centre that influences thinking, planning and policy making on vital aspects of social life such as religion, culture, society, politics, governance, education, health care, etc. These objectives have been carefully enunciated to attract the right type of candidates for research programmes in the University – we are looking for bright young men and women with a passion for excellence and scholarship, and experienced guides and mentors with a flair for enthusing young minds with the thirst to take on challenging research projects and assignments in the University.

**Objective**

The objective of the Ph. D. programme of the Assam Don Bosco University is to enable a scholar to undertake research which leads to a contribution to the body of existing knowledge characterized either by the discovery of new facts, solution of unsolved problems, development of new techniques or by reinterpretation of known facts or new solutions to problems. A research scholar who has completed the Ph D programme of the University should be capable of undertaking independent research and with further experience, should be able to guide others in research.

**Admission and Eligibility**

Candidates with at least 55% marks or a CGPA of 6.0 on a scale of 10 for Master's Degree, M Tech or M Phil in the concerned subject or an allied subject are eligible to be admitted to the Ph D programme.

Candidates are required to appear for a written test and/or an interview to be conducted by the Board of Research Studies of Assam Don Bosco University. Candidates shall be shortlisted for admission into the programme according to merit determined after giving suitable weightage to the following:

- a) marks in the Master's Degree/grades obtained at M Phil/M Tech
- b) performance in the test and/or interview

The final list of candidates for admission shall be declared on the basis of the number of seats available and the performance of the candidates.

The written test is not mandatory for a person who

- a) has successfully completed a recognized M Phil programme
- b) has completed at least one year of research in a research laboratory/university/institute of repute
- c) has Master's degree in the relevant or an allied subject and at least seven years' experience of teaching, administration, management and specialized knowledge in the proposed field of research, to the satisfaction of the Board of Research Studies of the University
- d) is a teacher of this University.

In all cases, there will be an interview which will be organized by the Board of Research Studies at which the candidate should come prepared to discuss his/her research interest/area.

#### **Course work**

- a) Candidates admitted for the Ph D programme are to complete a mandatory course work of one semester (six months). It may be waived for a candidate who has done a course in research methodology at M Phil/M Tech studies, and has obtained a minimum grade point of 6 out of 10, or equivalent.
- b) Only candidates securing a minimum grade point of 6.00 in the course work will be permitted to continue in the programme.
- c) A candidate who is unable to complete the coursework during the allocated course work session may be offered one more opportunity to do so during the subsequent course work session conducted by the University. Fresh admission formalities will have to be completed by candidates who fail to complete the course work in two subsequent attempts.



### **Supervisor**

A candidate will be assigned a supervisor by the Board of Research Studies at the time of admission depending on the available specialisations among the supervisors of the University and the research interest of the student. If a candidate likes to work under a supervisor who is not on the faculty of the University, he/she should apply to the University for permission for the same. The University will make a decision on the request based on the norms laid down for empanelment of supervisors who are not members of the faculty of the University. The University reserves the right to reject such requests without assigning any reason for the same.

### **Registration**

After the period of course work, a candidate should apply to the University for formal registration in the prescribed proforma. The application shall be accompanied by a detailed research proposal including the topic, scope of its study, tentative hypothesis and research methodology including sampling and design, where necessary (synopsis). The candidate may also be required to make a presentation of the synopsis. The maximum permissible period between the date of admission and the date of formal registration for Ph D programme is 18 months.

### **Thesis**

The doctoral candidate will be required to prepare a thesis which will contain his/her research findings. The thesis should be a piece of research-work characterised either by the discovery of new facts or by fresh interpretation of facts or theories. In either case it should evince the candidate's capacity for critical examination of ideas, original thinking and judgment. It should also be satisfactory as far as its literary presentation is concerned.

### **Pre-Submission Seminar**

When the Supervisor is of the opinion that the thesis is in the final stage of completion, the scholar will be required to give a pre-submission seminar on his/her research findings.

### **Submission of Thesis**

- a) The candidate should have pursued research at the University for not less than two years from the date of registration for the Ph. D. programme, before he/she is eligible to submit the thesis. However, in the case of candidates admitted to the programme through an M Phil/M Tech programme pursued in this University, he/she may submit the thesis one year after the registration.

- b) The candidate is expected to submit his/her thesis within five years of the date of registration.
- c) The candidate shall be required to publish one research paper in a referred journal before the submission of the thesis and produce evidence for the same in the form of acceptance letter or the reprint at the time of submission of the thesis.

### **Award of the Degree**

The Ph D Degree will be awarded to the candidate based on the evaluation of the thesis by designated examiners and a Viva-Voce examination.

## Application Procedure

- 1) Obtain the Ph. D. Brochure of Assam Don Bosco University.  
Cost of brochure : Rs. 1000.00  
Postage charges : Rs. 50.00 (if requesting by post)

Requests by post must be sent to

*Registrar (Admissions)*

*Assam Don Bosco University*

*Airport Road, Azara, Guwahati – 781017*

along with

- a) a DD for the requisite amount, drawn in favour of “Assam Don Bosco University” payable at Guwahati,
- b) your name, e-mail id and contact number

The brochure may also be purchased online at [www.dbuniversity.ac.in](http://www.dbuniversity.ac.in)

- 2) Visit the online application page of Assam Don Bosco University website ([www.dbuniversity.ac.in/a](http://www.dbuniversity.ac.in/a)), follow the instructions given and enter the required information. When prompted, enter the Application Number and Password that will be provided to you when purchasing the Brochure.
- 3) Appear for DBU-ART (Don Bosco University ‘Aptitude for Research’ Test)
- 4) All candidates shortlisted on the basis of the aptitude test and candidates exempted from the aptitude test will be required to attend an interview. The dates for the “Aptitude for Research” Test and the interview will be intimated personally.

The Ph D programme Course Work is expected to commence in February, 2013



## Fee Structure

Admission Fee	:	Rs. 10,000.00 (payable at admission)
Annual Fee	:	Rs. 20,000.00 (for Humanities) Rs. 25,000.00 (for Science and Technology)
Registration Fee	:	Rs. 10,000.00 (payable at the time of final registration)

- Incentive for faculty members of ADBU – 50% waiver of Annual Fee
- Fees once paid are not refundable

## Thrust Areas

The thrust areas for research for the intake in the session February – July 2013 are as given below.

### **Chemical Sciences**

- Green Chemistry involving MW assisted reactions, solvent-free reactions, sonochemistry, ionic liquid mediated reactions, and aqueous phase organic reactions leading to novel biologically active molecules and agrochemicals
- Synthesis of novel heterocycles and study of their biological properties
- Computational Chemistry and Drug Discovery

### **Physics**

- Astrophysics
- Nanophysics
- Physics of microscopic biological structures

### **Electrical and Electronics Engineering**

- Power systems
- Embedded systems
- Optoelectronics

### **Electronics and Communication Engineering**

- Embedded systems
- Optoelectronics
- Biomedical instrumentation
- Nano-structured sensors
- Dye-sensitized solar cells

### **Computer Science and Engineering**

- Real Time Database Systems
- Digital Image/Signal Processing
- Human-Computer Interaction
- Natural Language Processing

### **Civil Engineering**

- Transportation Engineering and Water Resources
- Geoinformatics
- Seismic safety and vulnerability of structures
- Fluid and soil structure interaction
- Degradation of concrete and RCC structural members

### **Social Work**

- Women Empowerment
- Conflict, Peace and development
- Human Rights
- Sustainable Community Development

### **North East India Studies**

- Culture, Religious Beliefs and Post-Modern Society in North-East India
- Ethnicity, Ideology and Identity Formation in North-East India
- A Philosophy of Culture for North-East India

### **Comparative Religion**

- Themes, symbols, myths and rituals among the world's religions
- Beliefs and practices regarding the sacred, the numinous, the spiritual, the divine

### **Business Administration**

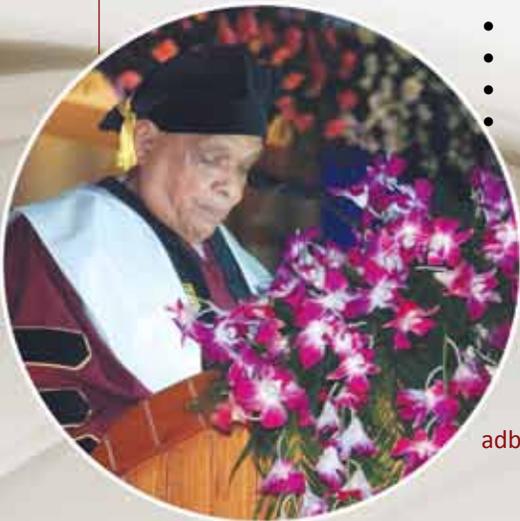
- Entrepreneurship
- Corporate Governance
- Marketing Management
- Human Resource Management

### **Biotechnology**

- Anti-cancer and anti-inflammatory potential of substances
- Anti-oxidant profile of agricultural products
- Biochemical composition of tissues
- Biology and breeding behaviour of certain species of fish
- Use of synthetic hormones in induced breeding of certain species of fish

### **Mass Communication**

- Philosophical and theological underpinnings of communication
- Society, development and communication
- Media, religion and culture
- Media ethics
- Tribal and folk media
- Communication theology and pastoral communication



### Language Studies

- English fiction from various parts of the world
- World literature in English translation
- Travel writing and women writing
- Exploring the language of drama
- Modern and modernist Poetry

## Don Bosco University

### 'Aptitude for Research' Test (DBU-ART)

DBU-ART will test the aptitude of the candidate in the following areas:

- English comprehension
- Logical and analytical ability
- awareness of research in the chosen area of study

Last date for application online : 15 January 2013

## Interview

At the time of the interview, candidates are required to bring a write-up, not exceeding 300 words, which will delineate

- a) area of study chosen for research
- b) relevance of the proposed research
- c) reason for the candidate's interest in this area

### Original Documents to be produced at the time of interview (for verification)

- a) Academic documents (mark sheets, certificates from class X onwards)
- b) Certificates of work experience (if any)
- c) Proof of previous research experience (if any)
- d) No objection certificate from the current employer, if currently employed

## Further Information

### For further information, please contact

- Director of Research : +91 9436101222
- Web : [www.dbuniversity.ac.in](http://www.dbuniversity.ac.in)
- e-mail : [admissions@dbuniversity.ac.in](mailto:admissions@dbuniversity.ac.in)



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