

INFORMATION BROCHURE

For Admission

to

Ph.D. Programme

(Even Semester, 2011-12)



Gautam Buddha University
Greater Noida, Gautam Budh Nagar - 201 310 (U.P.)

VISION

A globally acclaimed integrated academic and research institution that creates a vibrant community of intellectuals and entrepreneurs endowed with Character, Creativity, Competence and Commitment, who can inspire meaningful transformations to ensure holistic growth and development of the society.

FROM THE DESK OF THE VICE CHANCELLOR

Globalization has accelerated changes in the world order and consequently has raised new demands in industry and academia as well. In order to meet these demands, we, at Gautam Buddha University, have initiated a new model of Enlightened Education to address the needs of the new order and promote higher education and research in new emerging areas in the field of Biotechnology, Information Technology, Engineering and current practices in Management. We foster our mission for excellence in education and training coupled with a value-based intellectual growth. The approach of our programmes is non-sectarian, scholarly and critical, relying on the Buddhist scholarship and its applicability in restoring supremacy of peace, co-existence and growth in totality. Our fundamental commitment towards social responsibility derives inspiration from the Social Transformation Movement initiated by Mahatma Jyotiba Phule, which later was carried forward by Bodhisattva Baba Saheb Dr. Bhim Rao Ambedkar.

With emphasis on the rigorous training and education of our young aspirants, we ensure experiential learning and cutting edge research in various fields of studies. Knowledge without wisdom is a heap of facts. Our meticulously designed curriculum and training programmes stay focused on imparting all necessary skills required in and desired from all new entrants of the industry and corporate world. As each School of learning in the University combines a multilateral confluence of academic training, research, innovation and creativity, we practice an interdisciplinary approach in teaching and learning process. Our accomplished faculty members impart quality input in teaching and experiential learning of our students, supported by lectures and workshops delivered by eminent academicians and learned scholars of national/international repute in different fields of studies.

I take this opportunity to invite all new aspirants to join hands in our mission to impart global standards of higher education, training and research for meeting educational demands of 21st Century.

S. R. Lakha
Vice-Chancellor

1.1 ABOUT THE UNIVERSITY

Gautam Buddha University, established by the Uttar Pradesh Act (9) of 2002, commenced its first academic session at its 511 acres lush green campus at Greater Noida in August 2008. The University is fully funded by the New Okhla Industrial Development Authority (NOIDA) and the Greater Noida Industrial Development Authority (GNIDA) the undertakings of the Government of Uttar Pradesh. The University envisions to become a world class centre for excellence in education with a special focus to serve the under privileged and economically challenged sections of the society. The University is modelled as a fully residential educational campus in line with the best institutions of higher learning across the globe. The uniqueness of its reputation is acknowledged through the format, content and pedagogy of its programmes and their relevance to the society. The University is recognized by the University Grants Commission under UGC Act and is a member of the Association of Indian Universities.

1.1.1 Schools

In order to promote value-based education, research and training, the University has established following schools, which are:

- **School of Biotechnology**
- **School of Buddhist Studies and Civilization**
- **School of Engineering**
- **School of Humanities and Social Sciences**
- **School of Information and Communication Technology**
- **School of Law, Justice and Governance**
- **School of Management**
- **School of Vocational Studies and Applied Sciences**

1.2 THE CAMPUS

- The University is developing as a global Centre of Excellence in higher education and research
- A fully residential campus for all Faculty, Staff and Students with world class infrastructure with security arrangements to be added like electronic surveillance, CCTV cameras at strategic locations etc.
- Lush green campus spread over 511 acres with 30% green area, and 50,000 trees already planted,
- Total built up campus area of 55 lacs sq.fts,
- Bodhisattva Dr. Bhim Rao Ambedkar Library with total built up area of 1.8 lacs sq.fts. With a reading hall for 2000 library users at a time,

- Eight Schools creating Knowledge Leaders for tomorrow,
- In its fully functional state 5000 Students shall be receiving global exposure and training,
- Manywar Kanshi Ram Auditorium with 3000 seating capacity,
- An Administrative Building and Eight School Buildings,
- Mahatma Jyotiba Phule Vipassana Dhyaan Kendra,
- Eklavya Sports Complex with Indoor and Outdoor Stadiums, Swimming Pool, and Gymnasium,
- Mahamaya Shanti Sarowar, a water body spread over 1 lac sqft area,
- Panchsheel Residential Campus (500 Faculty and Staff Quarters),
- Separate Hostel for 160 Married Research Scholars,
- Hostel with single occupancy for 5000 Post Graduate Students,
 - Savitri Bai Phule Women's Hostel
 - Rama Bai Ambedkar Women's Hostel
 - Mahamaya Women's Hostel
 - Shri Chhatrapati Shahuji Maharaj Men's Hostel
 - Shri Narayan Guru Men's Hostel
 - Sant Ravi Das Men's Hostel
 - Birsa Munda Men's Hostel
 - Guru Ghasi Das Men's Hostel
 - Other Hostels are under construction

1.3 CENTRAL LIBRARY: Bodhisattva Dr. Bhim Rao Ambedkar Pustakalya

Bodhisattva Dr. Bhim Rao Ambedkar Pustakalya (Central Library) is a structural marvel designed with inspirational inputs from the Buddhist Traditions of Learning. The Library Building, situated in the centre of the Gautam Buddha University Campus, symbolises the Crown of Buddha and the Eight Schools of Learning on the Circumference of the Design represent Eight Paths of Learning in Buddhist Tradition and Practices. The building is the tallest one in the campus and marks our tribute to Lord Buddha.

The library, constructed in approximately 1.78 lacs sqft and spread over five storeys, supports the University's mission to contribute to society through its pursuit of education, learning and research at the highest international levels of excellence. It is the heart of academic and research activities of the Gautam Buddha University. It has huge volumes of books and e-journals which cover the disciplines of management, computer science, information technology, biotechnology, Humanities, and other related areas. The Central Library is located on the outer circle of the schools as the background of Tathagat's statue. The library is well equipped with modern facilities, spacious stack halls, 2000-seating capacity reading hall, reference sections, catalogue area, multiple self supporting loaning counters, and is managed by a highly dedicated team of professionals. The Central Library is fully automated library with Libby's and RFID systems.

1.3.1 Library Collection: The collection of the Library in the area of management, science, technology, engineering, humanities, social sciences etc. is very strong. The collection comprises mainly with books, theses, reports, current journals, back volumes, specifications, standards, video cassette, CD/DVD databases etc. The collection is heavily used by the faculty, students, alumni members, corporate members, industrial associates, project coordinators, scholars.

Apart from the printed resources it provides rich online resources like IEEE, ACM, Springer, Science-direct (Elsevier Science), Nature, Oxford University Press, Emerald, EBSCO, ECCH online management cases, CMIE (EIS, Prowess) databases and many other e-journals for scholars and students.

1.4 CENTRAL COMPUTER CENTRE

The Central Computer Centre (CCC) caters to the computational needs of the University and provides access to Internet resources as well as telecommunication facilities. The Campus network is carefully planned, keeping options in mind for future expansions. Fiber-Optic cabling is used to connect all the major buildings. The campus has also been made Wi-Fi. The CCC has strong IT security infrastructure that protects the university network from outside hackers. Most of the servers are using Open Source platform.

1.5 CORPORATE RESOURCE CENTRE

Continuous interaction with the industry helps students to build strong relationship with the industry professionals. This also helps students to understand the corporate world better and develop themselves as per the needs of the industry. The Corporate Resource Centre (CRC) at GBU intends to be the face of the University to the Corporate/Industry. It aims to facilitate the process of close Industry-University interactions and actively promote new avenues in experiential learning. The CRC endeavours to bridge the gap between academia and corporate world. It engages leaders, entrepreneurs, executives, and policy makers to address students to facilitate practical learning. The CRC helps students in finding appropriate summer projects and final placements. The CRC involves students strategically for various events, summer and final placements.

1.6 INTERNATIONAL COLLABORATIONS

We are carefully crafting our future which ensures qualitative education and training to students. In our quest for achieving intellectual excellence, we are re-drawing the frontiers and spreading our wings in all directions to map the limits of academic excellence. To become a global centre for excellence, we are in the process of formalizing tie ups and mutual accreditations with many universities in UK, France, Finland, Netherlands, Australia, Denmark and USA. To take the initiative of the University further, the government of Uttar Pradesh has introduced special scholarships for students of SC/ST and other economically challenged students of the society enabling 50% of them to meet their expenses for one semester at a university abroad for their travel, stay and course fees.

The University is in the process to have tie-ups and mutual accreditations with more than 15 universities in UK, USA, Australia and other major developed European countries. In this regard the University has signed MoUs with the Queensland University of Technology, Brisbane, Australia, the International Business Academy, Kolding Denmark, Manchester Metropolitan University, UK and Sheffield Hallam University, UK.

During the session 2009-10, our students of MBA, School of Management went to Denmark to attend Summer School Programme at the International Business Academy, Kolding, Denmark for one semester to study "The European Management Perspective". In the session 2010-11, our students of MBA, School of Management and M.Tech., School of Information and Communication Technology went to Sheffield Hallam University, UK.

2.1 DOCTORAL PROGRAMME

Research being at the core, the University patronizes attempts to provide new theoretical/practical frameworks which enable reassessment and refinement of current practices and theories. The faculty members of the University are committed to supervise and encourage the research work by the research scholars under the Ph.D. programme conducted for the faculty/research associates and employees of the University, full time research scholars, and working professionals, candidates sponsored by UGC, CSIR and other research funding organizations.

The following Schools of the University offers Ph.D. programme, Even semester, 2011-12 for the faculty/researchers, working professionals in recognised (AICTE/UGC) educational institutions/ Industry, Semi Government and Government sectors. The Schools offering the Ph.D. programme are:

- **School of Biotechnology**
- **School of Buddhist Studies and Civilization***
- **School of Engineering**
- **School of Humanities and Social Sciences**
- **School of Information and Communication Technology**
- **School of Law, Justice and Governance***
- **School of Management**
- **School of Vocational Studies and Applied Sciences**

* These Schools will start PG/ Ph.D. admissions from the July 2012, Session 2012-13.

2.2 GENERAL ELIGIBILITY CRITERIA (Ph.D. Working Professionals Programme)

- (a) Qualification:** A Masters degree in relevant discipline with
- Applied Sciences/Engineering/Architecture & Built Environment/ICT: 60% marks (55% in case of SC/ST) in Qualifying exams.
 - Biotechnology/Humanities and Social Sciences/Management: 55% marks (50% in case of SC/ST) in qualifying exams obtained from any of the universities/institutions established and/or approved by UGC/AICTE.
- (b) Experience:** A candidate should have two years research/teaching experience in an institute of higher learning/central laboratory or equivalent experience in industry at an appropriate level as on last date of submission of application form. The candidate is also required to produce a letter of consent from the current employer for providing sufficient facilities and time for conducting the research work.
- (c) Desirable:** Papers published in National/ International Journals and presented at National/ International conferences.

2.3 GENERAL ELIGIBILITY CRITERIA (Ph.D. Full Time Programme)

- (a) Qualification:** A Masters degree in relevant discipline with
- Applied Sciences/Engineering/Architecture & Built Environment/ICT: 60% marks (55% in case of SC/ST) in Qualifying exams
 - Biotechnology/Humanities and Social Sciences/Management: 55% marks (50% in case of SC/ST) in qualifying exams obtained from any of the universities/institutions established and/or approved by UGC/AICTE.
- (b) Desirable:** Papers published in National/ International Journals and presented at National/ International conferences.

3.1 RESEARCH AREAS OFFERED BY VARIOUS SCHOOLS

School offering Ph.D. Programme	Area of Research	Mode of Admission
		Full Time/ Working Professional
School of Biotechnology	Animal Biotechnology, Plant Biotechnology, Bioinformatics, Cell and Molecular Biology, Structure Biology, Immunology and Biochemistry & Microbiology	Full Time Only
School of Vocational Studies and Applied Sciences	<p>Mathematics: Cryptography, Wavelet Theory and Application to Engineering Problems, Image Processing, Industrial Mathematics, Scientific Computing, Financial Mathematics, Operation Research, Queuing Theory, Optimization, Intelligent Control, Robot Control Soft Organ Modeling, Fluid Dynamics, Nonlinear Programming, Differential Equations</p> <p>Physics: Optoelectronics Plasmonics, Biophotonics, Optical Sensors, Organic Semiconductors, Thin film Technology, Nanotechnology, Nano-Plasmonics, Computational electrostatics, Lithography</p> <p>Chemistry: Green Chemistry, Bioremediation for Water Polymer Synthesis, Coordination Chemistry, Medicinal Chemistry/ Drug Development</p>	Full Time/Working Professionals
School of Humanities and Social Sciences	Economics, Planning and developments, Education and training , English and modern European languages History and Civilization Indian languages and literatures Political science and international relations Psychology and wellbeing Public administration, governance and policy research, Social Works, Sociology	Full Time/Working Professionals
School of Engineering	Power Systems, Electrical Machine & Drives, Signal and Images Processing, Bio-Signals, Control Systems, Instrumentation	Full Time/Working Professionals
	Welding, Smart Materials, CFD, Thermal Engg., Industrial Engg., CAD/CAM, Manufacturing	Full Time/Working Professionals
	Water & waste-water Treatment , Water management, Structural Engineering, Urban planning, Regional Planning, Hydrology, Climate Change	Full Time/Working Professionals

School of Information and Communication Technology	Software Engineering Intelligent Systems and Robotics Wireless Communication and Networks VLSI Design	No seats are vacant in any mode of admission
School of Management	Finance and Economics Operations	Full Time Only

* A candidate shall normally be permitted to conduct research in his/her area of specialization. However, *inter-disciplinary* research shall be encouraged provided a candidate displays the necessary competence to conduct such research as ascertained and recommended by his/her supervisor(s) and approved by the Research Degree Committee (RDC) of the concerned School.

3.2 NUMBER OF SEATS AND RESERVATION

- **Number of seats** in each School is tentative and may be revised depending on the availability of supervisor(s) in the research area and other research facilities.
- The reservation policy of the University shall be followed as per UP Government Rules (23% for SC/ST and 27% for OBC categories).

4.1 ADMISSION PROCEDURE

- The candidates who fulfil the eligibility criteria are required to send completed application form along with a **tentative Research Proposal of 200 words**.
- The eligible candidates shall be required to take the entrance test **GPT-R** to be conducted **at the Gautam Buddha University Campus, Greater Noida, Gautam Budh Nagar (U P)**. However, the candidates who have qualified **JRF/NET/SLET** will be exempted from taking the University entrance test (GPT-R).
- **GPT-R** will be of 120 minutes duration and will comprise of 100 questions divided into different sections. The nature of questions will be objective with multiple choice answers. There will be no negative marking. There will be sectional cut-off.
- **The question paper has to be returned back with OMR Sheet after the examination.**
- The candidates who qualify the written test will be called for personal interview along with the detailed research proposal (**see guidelines for research proposal ****) to assess the suitability of their research proposal and the overall candidature for provisional admission to the Ph.D. Programme.
- The candidates shortlisted after the personal interview shall submit the required fee on a specified date.

* The admission of candidates to the programme will be provisional subject to their successful completion of all the requirements at the time of registration.

4.2 SYLLABI FOR ENTRANCE TEST (GPT-R)

The question paper will comprise 100 Marks. This has further division in three sections as following*:

English Proficiency
General Awareness, General Questions in Engineering, Science, Biotechnology, Management, Social Sciences and Humanities
Subject Awareness, Research Awareness

*The number and the ratio of the questions from the above areas/topics will not be fixed and will not be limited to a particular specialization. These may vary as per the view of expert committee of the university and the Schools of the University.

5.1 STRUCTURE OF THE PROGRAMME

The Ph.D. Programme of the University will be conducted in two phases:

Phase I: Course Work (Pre-Ph.D.)

- The candidate shall be required to complete at least **8 credits (or more)** course work as decided by the Student Research Committee (SRC) of the concerned School of the University.
- The candidate shall be required to complete the course work normally during the first semester. This time period, however, may be increased for individual candidates, if required, but not beyond 12 months from the date of admission.
- The course work includes attending classes, writing assignments, seminars, end semester written examination etc.
- The candidate shall complete all assigned courses with minimum grade as decided by the competent authority. Other academic rules of the University will also be applicable to the Ph.D. candidates.
- Satisfactory completion of the course work in all aspects is mandatory before submitting the **Research Proposal** for registration to the programme.

Phase II: Research Work

- The candidate shall submit the **Research Proposal** which shall be put in the meeting of the Research Degree Committee (RDC) for consideration for registration to the Ph.D. Programme. The candidate shall appear for presentation-cum-viva before the RDC.
- The candidate will have only two chances for appearing before RDC. *The admission to the programme will stand cancelled, if the Research Proposal is not approved by RDC even in two appearances.*
- Further, the candidate shall stay in touch with his supervisor(s) and submit periodic research progress reports. However, the progress of the research work shall be evaluated by the supervisor(s) from time to time and submitted and/or presented through research seminars, normally twice in a year.
- The candidate shall be required to register along with fee in every semester

- Before final submission of thesis, the candidate will have to give a **Pre-submission** seminar to be organised by the concerned school. The candidate should also be able to publish at least two research papers related to his/her research work in the refereed journals of international repute before final submission of the Ph D thesis.

5.2 DURATION OF THE PROGRAMME

The minimum period for submitting the Ph.D. thesis shall **not be less than two years** from the **date of approval of RDC** or any other date as approved by RDC and the maximum period will not exceed five years under any circumstances. This period excludes the duration to complete course work. If the candidate is not able to submit his/her thesis within the specified duration of time, the Vice-Chancellor on the recommendation of Dean of the School may extend it further up to a maximum of one year only.

5.3 RESEARCH SUPERVISOR(S)

The candidate will have a research supervisor(s) from the University. The number of supervisors may be two, if the research is interdisciplinary. However, a recognised teacher as per the university ordinances can also act as an external supervisor with prior written approval of the competent authority of the University.

6.1 FEE STRUCTURE

The fee structure shall be decided by the competent authority of the university from time to time. The present fee is as follows:

- Academic Fee Rs. 6,000/- per semester
- Registration Fee Rs. 10,000/-
- Caution Money (Refundable): Rs 10,000/-

6.1.1 For Full Time Ph.D. Scholars (Additional Fee)

- Hostel charges will be Rs 30,000/- per academic session
- Food charges approximately Rs. 25000/- per academic session

7.1 HOW TO APPLY

The application form should be downloaded from the university website www.gbu.ac.in. The candidate should submit the application form along with a demand draft of **Rs. 1200/-** (Rs. 600/- for SC/ST candidates) drawn in favour of **The Chairman Admissions, Gautam Buddha University** payable at Noida/Delhi. The completed application form should be accompanied with following documents:

- Demand draft for Rs 1200/- (Rs 600/- for SC/ST)
- Self attested copies of mark sheets and certificates of all examinations starting from 10th onwards.
- Experience certificates,
- Self attested copy of caste certificate, if applicable
- Consent letter/NOC from the current employer (if applicable)
- Copy of tentative Research Proposal (**200 words only**)

Please mention '**Application for Ph.D. Programme (GPT-R)**' on the right top corner of the envelope. The completed application form **along with** tentative research proposal (200 words only) should reach latest **by December 31, 2011** to:

**The Chairman-Admissions
Admission Office, Administrative Building,
Gautam Buddha University,
Greater Noida, Gautam Budh Nagar – 201 310 (U.P.)**

Note:

- No stipend/scholarship will be provided to the admitted candidates by the University.
- Mere fulfilling eligibility criterion may not ensure getting a call for written test and/or interview.
- The incomplete application form and/or research proposal written inappropriately can be the reason for rejecting the candidature for admission.
- The competent authority of the University can take suitable decision in any matter which needs to be further explained. The University reserves the right to review the rules in case of Ph.D. Programme from time to time and only the latest rules will be applicable to all candidates irrespective of the year of registration.
- The University will not be responsible for any delay in receiving the application form for any reason whatsoever.
- The result of admission to the programme, declared by University shall be final and binding.
- In case of any legal dispute, the jurisdiction will be limited to Gautam Budh Nagar courts only.
- Candidates are also advised to keep updating their email address and phone number for all important communications.
- For more information please visit website **www.gbu.ac.in** or contact at **+91 120 2344234**.

7.2 Important Dates

Last Date of Receiving the Application Form in the University	December 31, 2011
Date of Written Entrance Test (GPT-R)	January 22, 2012
Personal Interview	Feb, 2012
Commencement of the programme	Feb, 2012

8.1 Guidelines to prepare the Detailed Research Proposal**

- The proposal should be of **5-6 pages** (excluding references).
- The font size 12 Times New Roman, 1.5 line spacing and margin of 2.5 cm all sides.
- The front page should bear the Topic and Name, affiliation of the applicant.
- The following framework should be observed:
 - o Title
 - o Introduction
 - o Review of literature
 - o Objectives and scope
 - o Methodology proposed
 - o Anticipated contribution to the concern body of knowledge
 - o References