

POST GRADUATE ADVANCE DIPLOMA IN BIOMEDICAL SCIENCE AND BASIC CLINICAL RESEARCH

Gauhati University was the first University set up in Northeast India under the Gauhati University act, 1947 (Assam Act XVI, 1947) in 1948 and is the premier educational institute imparting quality education and catering to higher educational needs of the aspiring students of the Northeastern region. Its Department of Biotechnology currently runs Masters in Biotechnology (M.Sc), since 1993.

Biotechnology comprises a collection of techniques or processes using living organisms or their units to develop added-value products and services. When applied on industrial and commercial scales, biotechnologies give rise to bio-industries. The wide range of Biotechnologies, from the simplest to the most sophisticated, which allows each country to select those that suit its needs and development priorities, and by doing so even reaches a level of excellence. As biomedical and clinical sciences and research has become an important aspect in current biotechnology and life science associated studies with huge job and research prospects, we integrate these topics as a separate 'Post Graduate Advance Diploma in Biomedical Science and Basic Clinical Research' (BSBCR) which will include a curriculum consisting of teaching as well as wet lab experiments and assignments. The course is planned for training quality manpower for biomedical and clinical research as well as to develop job prospects amongst the northeastern student and research scholar fraternity.

MISSION OF THE UNIVERSITY:

"To set high standard of excellence in the presentation and creation of knowledge through teaching, learning research innovation and experiment and to serve as an effective instrument for the development and change for the state of Assam and the country, to pass on faithfully and comprehensively the cultural, scientific and technological experience of mankind accumulated over the centuries and thereby ensuring the continuity and advancement of human civilization and to be a vibrant part mans never ending quest for knowledge through collaborations with institutions of higher learning and research in the country and abroad."

THE UNIVERSITY EMBLEM AND MOTTO:

The emblem of Gauhati University is inscribed with the name of the University and its motto in two significant Sanskrit words- 'Vidyaya Sadhayeta' which means achievement through learning i.e. knowledge. The verbal form 'Sodhayeta' indicates that the learner is the rightful person (adhikari) of the fruit of learning. The 'Isopanished' stated that one can get immortality through learning or knowledge.

NAAC ACCREDITATION:

THE University initiated the process of accreditation and assessment by the National Assessment and Accreditation Council (NAAC), which culminated in the visit of the NAAC peer team in March 2010. The apex council of NAAC, awarded the grade 'B' to the University.

DEPARTMENT OF BIOTECHNOLOGY:

The DEPARTMENT OF BIOTECHNOLOGY, Gauhati University, was established in the year 1993 with a mission: To develop motivated professionals for facing global challenges in the field of Biotechnology and to create awareness among the society to harness the benefits of modern Biotechnological innovations. The Gauhati University being the pioneer institution for higher education in the entire N.E. region; the teachers of various departments are always keeping keen interest in the matters of new horizons of developments in their respective fields. Based on the regional needs, the department of Biotechnology has also decided to expand its research areas so as to share its technological knowledge for over all socio-economic development and to create more job opportunities.

THE PROGRAMME: PG Advance Diploma in Biomedical science and Basic Clinical Science
Biotechnology and bio-industry are becoming an integral part of the knowledge-based economy, because they are closely associated with progress in the life sciences and in the applied sciences and

technologies linked to them. For many people, biotechnology means genetically modified organisms, alien species, toxic weapons or hormone-treated meat. Yet it is also a tool to control plant and animal pathogens, preserve species, utilize genetic resources for health and nutrition and protect the environment. Society's ability to manage, share and regulate advanced biotechnology offers many opportunities and raises many challenges and risks.

In 2001, the *Human Development Report* considered biotechnology to be the means to tackle major health challenges in poor countries, such as infectious diseases (tuberculosis), malaria, Hepatitis and HIV/AIDS, and an adequate tool to aid the development of the regions left behind by the "green revolution". New and more effective vaccines, drugs and diagnostic tools, as well as more food and feed of high nutritional value, will be needed to meet the expanding needs of the world's populations.

Strong opportunities exist in areas such as Biomedical Science including Immunology, reproductive medicine, neurosciences, infectious diseases and cancer both at the level of developing newer diagnostic tools as well as novel therapeutics. The potential of this bioeconomy to spur economic growth and create wealth by enhancing industrial productivity is unprecedented. It is therefore no surprise that high-income and technologically advanced countries have made huge investments in research and development (R&D) in the life sciences, biotechnology and bio-industry involving Medical Biotechnology or Biomedical sciences.

Keeping in view the market demand and the changing pattern in Biotechnology, the Department is all set to offer a one year 'Advance post graduate diploma in Biomedical science and basic clinical research' from the academic session 2010-2011 with the objectives referred below

SCOPES:

Clinical research is a field where one not only gets job satisfaction but good money as well. It is through this profession that doctors and pharma professionals have invented drugs to cure a number of diseases. Although this field is much more well-established in foreign countries such as the USA, Germany, England and Switzerland, with the globalization of the Indian economy, many MNCs engaged in this work have set up base in India now.

Clinical research is a multinational, multi-billion and multidisciplinary industry. Clinical Research is all set to become the next big thing in India. Indian pharmaceutical industry is one of the fastest growing sectors of the Indian economy and has made rapid strides over the years. From being import dependent in the 1950s, the industry has achieved self-sufficiency and gained global recognition as a producer of low cost, high quality bulk drugs and formulations. According to industry reports, India is the second largest pharmaceutical market in Asia growing by more than 9% annually.

The demand for clinical research professional is seems to be increasing in the recent past years in India. With a conspicuous figure of \$1 billion, this business field has touched the new height in 2010 in the global market. This indeed has raised the requirement of professionals in this field and has brought in a whole new positive change in the nations economy and medical sector. As per a recent survey conducted there are more than 50,000 job openings available in India in this year and figures seem countless worldwide. All these facts are making this field, one of the most promising careers for sure. Ever since, the organizations pertaining to the clinical research sector are giving highest remuneration to all its skilled professionals making it a tempted career option for all.

OBJECTIVES:

The course is planned for:

training quality manpower for biomedical and clinical research, to develop job prospects amongst the northeastern student and research scholar fraternity.

ELIGIBILITY CONDITION:

B.Sc. in any branch of LifeScience (Biotechnology/ Zoology/ Botany/Microbiology/Life sciences), BAHMS, BAMS, MVSc, PhD, MBBS/ MBBS-MD, B.Tech, B.Pharm with 55% aggregate marks (50% for students belonging to the SC/ST categories).

AGE : No bar.

ACADEMIC SESSION AND CLASS DURATION:

Odd semester- August to december

Even semester- January to June

THE FACULTY:

The core faculty will consist of teachers from the Department of Biotechnology and Medical colleges, with guest lectures of repute on specialized aspects.

SYLLABUS FOR PG ADVANCED DIPLOMA IN BIOMEDICAL SCIENCE AND BASIC CLINICAL RESEARCH (one year full time course)

SEMESTER I

| | |
|---|-----------------------|
| BMSC 101: Basics of Human anatomy, Genetics and Cellular Physiology | 100 marks (6 credits) |
| BMSC 102: Clinical Microbiology and Biochemistry | 100 marks (6 credits) |
| BMSC 103: Immunology, Vaccines and Transplantation Technology | 100 marks (6 credits) |
| BMSC 104: Practical-I | 150 marks (9 credits) |

SEMESTER II

| | |
|---|-----------------------|
| BMSC 201: Basics of Molecular Medicine | 100 marks (6 credits) |
| BMSC 202: Basic Clinical Management and skill development | 100 marks (6 credits) |
| BMSC 203: Project | 150 marks (9 credits) |
| Area of project should be concerned with Immunology, molecular epidemiology, clinical biochemistry, clinical microbiology, diagnostics, disease etiology etc. The project work will constitute 120 marks and the rest 30 marks will be based on open Viva-voce in the presence of an external examiner and internals. | |
| BMSC 204: Practical II (25 x 3 h) | 150 marks (9 credits) |
| BMSC 205: Assignment and Seminar | 50 marks (3 credits) |

The theory written exam will constitute 80 marks, and 2 internal exams, one seminar and assignment will cumulatively constitute another 20 marks.

Total marks (Theory) = 100.

Total marks: 1000

Total credit: 60

ADMISSION PROCEDURE:

ISSUE OF PROSPECTUS AND FORMS: From July 9th

Prospectus and applications forms along with the University prospectus can be downloaded from the Gauhati University website. The downloaded forms should be accompanied by a cash deposit of Rs 250 (Two hundred and fifty only) to the co-ordinator, PG Advance Diploma in Biomedical Science and Basic Clinical Research, In the Department of Biotechnology (2nd Floor), Gauhati University, as processing fees.

LAST DATE OF SUBMISSION OF FORMS: 5th August, 2011

The duly filled forms with attested xerox-copies of marksheets and pass certificates and fees should be sent (on or before: 21/07/2010) in personal or through post to:

Dr. Manab Deka

Co-ordinator

Professor, Department of Biological Science

Gauhati University, Gopinath Bardoloi Nagar, Guwahati, Assam-781014

Ph. No. 9957181630 / 9435910279 / 9954028440

Fax-0361-27700311; email: biomedgu@gmail.com

(for more details, please visit the website: www.gauhati.ac.in)

PUBLICATION OF THE LIST OF SELECTED CANDIDATES: 12th August, 11

NUMBER OF SEATS: 20 (twenty)

DATE OF ADMISSION: 16th August, 2011

Admission will be based strictly on merit in the last passing exams or through an entrance test to be conducted in the Department of Biotechnology, Gauhati University. The admissions will be provided strictly as per the guidelines formulated by the Admission committee of Gauhati University, Guwahati. In case of a selected candidate opts out of the course, a waitlist candidate will be admitted as per the merit list of wait list candidates.

DOCUMENTS TO BE SUBMITTED AT THE TIME OF ADMISSION

Age proof certificate/ Admit card with age; Pass certificate and marksheets- H.S.L.C onwards; Caste certificate (if any); 4 copies of recent colour passport photographs

COURSE FEES STRUCTURE

SELF-FINANCED: Rs. 50,000/- (payable in 2 installments of Rs. 25,000/- each) fees once paid is nonrefundable

Note:

- i. University Registration Fee (once) and examination fee has to be paid separately
- ii. Student has to bear the cost of identity card for studentship and necessary dues to the central library

COMMENCEMENT OF CLASS: AUGUST 05, 2010

DRESS CODE: APRONS ARE MUST IN PRACTICAL CLASSES

HOSTEL ACCOMODATION:

Information regarding hostel facilities will be intimated in the due course

FACILITIES AVAILABLE IN THE DEPARTMENT

Dedicated Biomedical science laboratory sponsored by Department of Biotechnology, Govt. Of india which includes instruments like HPLC, PCR, Real Time PCR, functional CELL CULTURE FACILITY, BIOSAFETY LAB-II, 2-D GEL electrophoresis, Western blotting modules, semi-autoanalyzer, ELISA etc, and several other instrumentation facility to undertake and perform molecular Biology and Immunology work as well as clinical microbiology and Bioinformatics, and to learn Biomedical science.

LOCATION:

2nd floor of the Department of Biotechnology building adjacent to the K.K. Handique Central library on one side and Zoology on the other.

ACADEMIC AND WELFARE SERVICES:

The K.K. Handiqui Library:

The Library functions in the Open Access System, under which students are able to have direct access to books in the shelves. The working hours of the Library are as follows:

10 a.m. to 7 p.m. on all working days
11 a.m. to 4 p.m. on Sundays

The Pre-Examination Training Centre:
Director in-charge: Prof. Pranab Jyoti Das
Deputy Director: Sanjay Dutta
Contact: 0361-2570729, 2676791, 2676804, 2573887

The Directorate of Students' Welfare:
Director : Mr. Radha Charan Rabha
Contact : 0361-2570852
Location : Southwestern side of BKB Auditorium
The office of the Director of Student Welfare deals with the Organization of sports and extra curricular activities, beside providing other facilities for the students.

University Health Service:
Chief Medical Officer: Dr. N. N. Talukdar
Contact : 0361-2571137

Career Counselling and Guidance Centre:
In-charge : Prof. Jyotiprakash Tamuli

Student Counsellor: Mr. Rajiv Deka
Available for meeting students:
10.30 a.m. to 1.00 p.m. (Monday, Wednesday and Saturdays)

Placement Cell:
Placement Coordinator : Prof. Pranab Jyoti Das; Department of Chemistry

Placement Officer : Dr. Kandarpa Kumar Sarma
Department of Electronics Science
Contact : 0361-2671262 (Dept. of Electronics, G.U.)

ADMINISTRATIVE PROFILE

Chancellor
His Excellency Shri Janaki Ballav Patnaik
Governor of Assam
0361-2606055 (Raj Bhavan, Assam)

ADMINISTRATION

Vice-Chancellor
Prof. Okhil Kumar Medhi
0361-2570412

Registrar
Dr. U. C. Das
Tel : 0361 - 2570415

Treasurer
Sri B. Chakravorty
Tel : 0361 - 2570411

Controller of Examinations

Dr. P. K. Deka
0361 - 2570410

Academic Registrar
Dr. J. Dutta
0361 - 2700517

Secretary, University Classes
Dr. N. Bora
0361 - 2570538

Deputy Secretary, University Classes
Sri A. K. Das
0361 - 2572752/2570355

Coordinator, Internal Quality
Assurance Cell (IQAC)
Prof. B. C. Goswami



GAUHATI UNIVERSITY

APPLICATION FORM FOR ADMISSION INTO

P.G Advance Diploma In Bio-Medical Science & Basic Clinical Research Course

Session- 2011-12

Affix
four signed
recent Passport
Size Photograph
here.

1. Name of the Applicant (in CAPITAL LETTERS) :

2. Name of Father : Cell No.

3. Name of Mother : Cell No.

4. Name of Legal Guardian :
(in case of absence of either of the of parents)

5. Date of Birth : 6. Sex/ Male/Female :

7. Nationality : 8. Caste/ Community : General/OBC/MOBC/ST/SC

9. Are you 'Differently Abled Person'? : Yes/No :

10. Permanent Address :

Village/Town : P.O.

P.S. Dist:

Pin Code State :

Telephone : e-mail :

11. Address for Communication :

Village/Town : P.O.

P.S. Dist:

Pin Code : State :

Telephone : e-mail :

12. Academic Qualification :

| Sl No. | Name of Examination | Board/ University | Year of Passing | Div./Class Secured | % of Marks | Subjects Taken |
|--------|-------------------------|-------------------|-----------------|--------------------|------------|----------------|
| 1. | HSLC/10 th | | | | | |
| 2. | HS (10+2) | | | | | |
| 3. | BSc./BVSc./B.Tech | | | | | |
| 4. | MSc./MVSc./MBBS/MD/BAMS | | | | | |
| 5. | Any Other | | | | | |

13. Are you applying for University Hostel/Accommodation? Yes/No _____

Declaration by applicant

I hereby submit myself to the disciplinary jurisdiction of the authorities of Gauhati University. (1) I promise to abide by the provisions contained in the UGC Regulations on curbing the Menace of Ragging in Higher Educational Institutions, 2009. I shall neither indulge myself nor instigate any other student in ragging or create nuisance to the academic atmosphere of the University. (2) I undertake to swear an affidavit in this regard in the format given in Annexure I and submit the same before the authority of the University. In case of any misconduct on my part or any disciplinary proceeding against me the University has the freedom to inform my parents/guardians. Moreover, if any involvement in any incident of ragging comes to the notice of the authority I would be given the liberty to explain and if my explanation is not found satisfactory, I will be expelled from Gauhati University.

I declare that the information given above is correct and complete to the best of my knowledge. If any of the above information is found to be incorrect my admission will be liable to be cancelled and I shall be liable to disciplinary action as may be decided upon by the University.

Date _____

Signature of the applicant

Guardians' Financial Guarantee to be filled in by the Parents/Guardian

I hereby declare that I take full responsibility for the payment of University dues as laid down under University rules of my son/daughter/ward, Sri/Srimati/Kuman, _____

for his/her study in the University during the course of his/her study at Gauhati University. I also take full responsibility for regular payment of the Hall dues of my son/daughter/ward if she/he avails a Hall Seat.

(3) I also undertake to swear on affidavit, in the matter of curbing the menace of ragging, in the format given in Annexure II and submit the same before the authority of the University.

Date _____

Signature of the Parent/Guardians

N.B. : Students selected for a Hall of Residence will be required to pay the prescribed fee separately as per the rules.

For official Use Only :

| Provisionally selected Under | Category | | Main List Sl. No. | | Waiting List Sl. No. | |
|------------------------------|----------|--|-------------------|--|----------------------|--|
| Course | | | | | Roll No. | |

Acknowledgement Receipt :

Received from _____ admission application form No. _____ along with _____

Checklist of Enclosures :

- i. HSLC/10th Admit Card or Birth Certificate
- ii. Pass Certificate/Marksheet of HSLC
- iii. Marksheet and Pass Certificate of qualifying Examination

Co-ordinator, BSBCR
Department of Bio-Technology, GU

