

GAUHATI UNIVERSITY

Prospectus 2012-13

and

Application form for

**B.S., B.Tech., B.Tech. (Lateral Entry)
M.Tech., Integrated B.S. / B.Tech. - MBA**



জিলিকাব লুইতৰে পাৰ

Gopinath Bardoloi Nagar, Guwahati -781014, Assam, India



Dr. Bhupen Hazarika

বিশ্ববিদ্যালয় সংগীত

কথা আৰু সুৰঃ ড° ভূপেন হাজৰিকা

জিলিকাৰ লুইতৰে পাৰ
এন্ধাৰৰ ভেটা ভাঙি
প্ৰাগজ্যোতিষত বয়
জেউতি নিজৰাৰে ধাৰ

শত শত বস্তিৰে
জ্ঞানৰে দীপালীয়ে
জিলিকাৰ লুইতৰে পাৰ

সাঁচি পাতে ভাষা দিব
চিফুঙে আশা দিব
ৰংঘৰে মেলিব দুৱাৰ

সমাজে সারটিব
মহান মানৱতাক
বিজ্ঞানে আনিব জোঁৱাৰ
জিলিকাৰ লুইতৰে পাৰ

নতুনৰ গতি খেদা
ডেকা গাভৰু আমি
নিৰ্ভীক এই শতিকাৰ

অজ্ঞান চাকনৈয়া
এফলীয়া কৰি থৈ
মাৰি যাওঁ জীৱনৰে ডাঁৰ
জিলিকাৰ লুইতৰে পাৰ

The University: A Heritage Institution



Emblem and Motto

The emblem of Gauhati University contains a wealth of meaning.

On it is inscribed the name of the University and its motto in two significant Sanskrit words:

“vidyaya sadhayeta”

‘achieve through learning’

‘sadhayeta’ indicates that the learner is the rightful person (adhikari) of the fruit of learning.

The isopanisad states that one can attain immortality through learning or knowledge.

Message from the Vice-Chancellor

At the outset, I would like to extend my hearty welcome to all those of you seeking admission to the B.S., B.Tech. and M.Tech. Programmes (2012-13) of Gauhati University.

Since its inception in 1948, Gauhati University has continued to be a leading teaching and research institution of the region, offering courses in a wide range of disciplines. More recently in 2009, in an effort to enhance quality and innovation in Science & Technology Education, the Faculty of Technology was initiated with different departments. The Programmes currently being offered by these departments are the four-year Bachelor of Science (B.S.) and Bachelor of Technology (B.Tech.) Programmes, and the two -year M.Tech. Programmes.

Those efforts have been initiated in order to meet the hopes and aspirations of the students of the state. I am sure these new opportunities created in our University will contribute reducing the outflow of a large number of students to the Institutions outside the State pursuing similar courses. Gauhati University’s move to introduce the B.S. Programme in 2009 is in line with the joint proposal of three of India’s largest Associations of Scientists, namely, the Indian National Science Academy, New Delhi, the Indian Academy of Sciences, Bangalore and the National Academy of Science, Allahabad, to introduce major changes in University Science Education. The three apex science bodies have recommended that a four-year B.S., Programme be introduced to allow for greater freedom in subject choices, long denied to students across India. I am very happy to state that according to the revised educational qualification for CSIR-NET, BS- 4 years programme students can now appear CSIR-NET exam for JRF directly after completion of their 3rd year as notified vide CSIR advertisement No. 10-2(5)/2012(i)-EU-II.

In addition, keeping in view the University Grant Commission’s agenda on the matter, and looking at the current challenges and needs, our University decided to start the B.Tech. Programmes in selected disciplines from 2009. It is our earnest hope that these efforts will help to narrow down the gap between Science and Technology. Towards this end, the B.S. and B.Tech. Programmes have been planned with common courses between them. There is also a provision to switch from a B.Tech. Programme to a B.S. Programme, under certain conditions. These programmes are, moreover, intended for those students who are likely to opt for higher studies and research, and have been designed for such a purpose.

Furthermore, in order to improve the potential for employment, where it is preferred to have knowledge of more than one subject, we have introduced a system of dual degrees (B.S.+M.B.A.; B.Tech.+M.B.A.) for the benefit of the students enrolling into these programmes.

Finally, the progression to higher studies and research in Science and Technology are being facilitated by the M.Tech. and Ph.D. Programmes that are being offered. First batch of Ph.D. students in different new departments under faculty of technology has already started Research Course from this year. A good number of sponsored research projects at different departments have already started boosting the overall academic, research and innovation scenario of those departments. In coming years, more M.Tech. and new M.S., Integrated Ph.D. programmes will be offered by various departments under the Faculty of Technology.

I hope that you will be able to find the academic programme of your choice from the range of programmes being offered, and that your time with us in the campus will be intellectually stimulating and professionally rewarding. I further hope that it will enable you to emerge as a complete person, with an all-round development in personality, through the efforts of a dedicated team of faculty members with exemplary standards in teaching and research.

15 June, 2012

Professor Okhil Kumar Medhi
Vice-Chancellor
Gauhati University

Administrative Profile

Chancellor
Shri Janaki Ballav Patnaik
Governor of Assam, Raj Bhavan
0361-2606055

Vice-Chancellor
Prof. Okhil Kumar Medhi
0361-2570412

Registrar Sri Uttam Chandra Das 0361-2570415	Dean, Faculty of Arts Prof. Madhurjya Prasad Bezboruah	Director i/c, Institute of Science and Technology Prof. Pranayee Datta 0361-2672233
Treasurer Sri Bishnu Chakravarty 0361-2570411	Dean, Faculty of Commerce Prof. Hem Chandra Gautam	Principal, University Law College Dr. Jyoti Prasad Bora 0361-2570364
Controller of Examinations Dr. Prafulla Kumar Deka 0361-2570410	Dean, Faculty of Engineering Prof. N.N. Patowary	Director i/c, Institute of Distance and Open Learning Dr. Kandarpa Das 0361-2673728
Academic Registrar Dr. Jit Ram Dutta 0361-2700517	Dean, Faculty of Fine Arts Prof. Umesh Deka	Director i/c Institute of North East Studies Prof. Umesh Deka 97065 43286 (O)
Secretary, University Classes Dr. Nilamoni Bora 0361-2570538	Dean, Faculty of Law Prof. Subhram Rajkhowa	Director, Women's Study Research Centre Prof. Archana Sharma 0361-2672449
Librarian, K.K. Handiqui Library Sri Wooma Shankar Dev Nath 0361-2570529	Dean, Faculty of Management Prof. Munindra Kakati	Director i/c College Development Council Dr. Jogen Chandra Kalita 0361-2700353
Joint Registrar Dr. Ramani Barman 0361-2700311	Dean, Faculty of Medicine Dr. Kabul Ch.Saikia	Director, Pre Examination Training Centre Prof. Pranab Jyoti Das 0361-2570729
Secretary i/c, GU Publication Department Sri Anjan Kumar Das 0361-2570355	Dean, Faculty of Science Prof. Rakesh Kumar Bhola	Officer, Placement Cell Sri Kandarpa Kumar Sarma 0361-2671262
Deputy Secretary, University Classes Sri Anjan Kumar Das 0361-2572572	Dean, Faculty of Technology Prof. Pranayee Datta	In-Charge, Career Counselling & Guidance Centre Prof. Jyotiprakash Tamuli
Deputy Registrar Sri Uday Kumar Khanikar 92074 10116 (O) 94350 34245 (M)	Superintending Engineer Sri Ramani K. Sarma 0361-2570444	Officer-in-charge GU Guest House Sri Arabinda Sarma 0361-2570848
Director, Students' Welfare Sri Radha Charan Rabha 0361-2570842	Chief Medical Officer Dr. N.N. Talukdar 0361-2571137	Public Information Officer Sri Uday Kumar Khanikar 92074 10116 (O) 94350 34245 (M)
Co-ordinator, Internal Quality Assurance Cell (IQAC) Prof. Jyotiprakash Tamuli	Public Relations Officer i/c Sri S.N. Misra 0361-2572332	Director i/c, Academic Staff College Dr. Shyamanta Chakrabarty 0361-2570599

A University of the People for the People by the People

The establishment of Gauhati University was the culmination of a prolonged movement by the people of Assam for a University of their own since the early years of the twentieth century.

The demand for a University was raised in many forums, and over several decades. In 1917, presiding over the annual session of the Assam Association at Sibsagar, Satyanath Bora strongly advocated the case for a separate University in Assam. He pointed out that the Calcutta University could hardly reflect the ethos and aspiration of the people of Assam. In fact, the Sadler Commission, while visiting Cotton College in 1917, remarked that Assam could not be expected to mould its national character and shape its courses and curriculum of study so long as it remained under the academic control of Calcutta University. The matter was discussed in the Legislative Council for the first time in April 1917. A resolution that Assam should have a separate University was moved by Daiba Chandra Talukdar in the annual conference of the Guwahati Ekata Sabha, held at the Curzon Hall in 1928 under the presidentship of Karmabir Nabin Chandra Bardoloi.

Assamese Students' Welfare League, based in Calcutta, became very active during this time and the demand for the University in Assam gathered momentum. Assamese was then recognized only as a subsidiary subject in Calcutta University and the League was successful in making it one of the principal languages. In 1931, the M.A. classes in English in Cotton College were abolished and there was also a move to shift the Earle Law College to outside Assam. These moves irked the people of Assam and the demand for a separate University grew stronger.

A resolution was tabled for an Assam University in the Assam Legislative Council on 17 March 1935, but the Government was not in favour of this because of financial constraints. A widely represented meeting, organized by the Assam Association and the Sangrakshini Sabha, was held at the Curzon Hall, Guwahati on 30 April 1935 with Lokpriya Gopinath Bardoloi on the chair. The meeting called for immediate establishment of a University in Assam and decided to form a University Committee with Lokpriya Bardoloi as the secretary. With the coordinated efforts of the Assam Association, the Assamese Students' Welfare League and the University Action Committee of Nagaon, a movement was launched all over the state for establishment of a separate University for Assam. "University Day" was observed throughout the state on 22 May 1935 with processions and public meetings. The Government of Assam owing to increasing public pressure prepared two schemes, one by J.R. Cunningham, retired Director of Public Instruction, Assam and the other by Dr. S.K. Bhuyan. Neither of the schemes was found acceptable. However, Robertson, who was the principal of the Murarichand College and who also served Assam as Director of the Education Department wrote in the annual report, "It is said, Assam cannot afford to have University of its own, it cannot afford not to have one".

The initiatives for setting up a University were renewed after the Second World War. In December, 1944 the Gauhati University Trust Board was formed with Lokpriya Bardoloi as its President. Bardoloi, ably assisted by Madhab Chandra Bezbaruah, Fakhruddin Ali Ahmed, Bhubaneswar Barua, Dr. Maheswar Neog and others, toured the entire Assam Valley and secured promise of more than 16 lakhs of rupees of donation. Of this, more than 5 lakhs were collected within a few months. Meanwhile, Bardoloi took over as the first Prime Minister of Assam in independent India. The formation of a popular Government under the leadership of Bardoloi made the task easier and as the State's Education Minister, Bardoloi moved the Gauhati University Bill. The Bill was accepted in Assam Assembly on 15 October, 1947. The jurisdiction of Calcutta University and Decca Board of Intermediate and Secondary Education over Assam and the N.E. Region ceased with effect from 26 January 1948. On this date, Prime Minister Bardoloi formally inaugurated the Gauhati University. The eminent scholar and educationist Krishna Kanta Handiqui, M.A. (Cal. et Oxon) joined the University as its first Vice-Chancellor and Phanidhar Dutta, a professor of Mathematics of Cotton College was appointed its first Registrar.

The University started functioning from a building left behind by the military in the Cotton College campus. In 1948, the University had 18 affiliated colleges besides two professional colleges, the Assam Medical College at Dibrugarh and the Assam Agricultural College at Jorhat till 1955. That year, the University was shifted to its present campus at Jalukbari.

Gauhati University could be established due to the aspiration of the people of Assam and their help and cooperation under the relentless and untiring efforts of a band of dedicated workers led by Gopinath Bardoloi, Madhab Chandra Bezbaruah, Sarat Chandra Goswami, Fakhruddin Ali Ahmed, Bhubaneswar Baruah and many others.

A unique heritage : The unprecedented and spontaneous financial support of the public and their untiring involvement in the thirty one year struggle has thus led to the establishment of Gauhati University. During the crucial initial years, this institution received the guidance of Krishna Kanta Handiqui, a pioneering Indologist and philanthropist as its Vice-Chancellor. V. Venkata Rao, Professor Emeritus, donated his life savings of about 15 lakhs of rupees for the promotion of higher education in the country through several Universities. A galaxy of eminent scholars and administrators, such as Bani Kanta Kakati, Birinchi Kumar Baruah, Maheswar Neog, Satyendra Nath Sarma, Paban Chandra Mahanta, Hiten Barua, Rohini Kumar Barua and many others will always be remembered for their notable contributions to the academic world and to the development of the University. Over the years and across the decades since its existence, Gauhati University has emerged as a symbol of integration: it has offered opportunities of Higher Study to students from the ethnically and culturally diverse mosaic of communities of the North East.

B.S., B.Tech., and M.Tech. Programmes

Objectives

- To offer a holistic approach to the study of Basic Science subjects and provide need-based, innovative courses to help students of Assam and the Northeast so that they are adequately equipped to obtain dignified employment.
- To create and nurture a state-of-the-art environment for systematic, in-depth and concerted study of science and technology at under-graduate, post-graduate and research levels so as to provide quality education to the aspiring youth of this part of the country.
- To provide an integrated launch pad for generating the know-how and know-why, and imparting the knowledge to use science and technology as a means of development and social change.
- To embed science and technology and managerial practices as an extension of the curriculum for providing the skills to students to adopt entrepreneurial ventures as a means of employment generation in this part of the country.
- To facilitate state of the art infrastructure for imparting basic science and technology education and thereby evolve as a credible platform for developing mind-sets for innovation and trigger a passion for change.

In-campus B.S./ B.Tech. Programmes

In an effort to enhance quality and innovation in Science education, Gauhati University has introduced the following in Programmes from the Session 2009-10:

1. The Four-Year B.S. Course, followed by opportunities for Ph.D.s in the basic sciences, with a provision for an early exit with an M.Sc. degree, or with a dual degree after completing one more year.
2. The Four-Year B.Tech. Courses in Biotechnology, Electronics and Communication Technology, Computer Science and Engineering, Information Technology.

Gauhati University's move to introduce these courses is in accord with the joint proposals of three of India's largest Associations of scientists to introduce major changes in University Science Education, namely –

The Indian National Science Academy, New Delhi
The Indian Academy of Sciences, Bangalore
The National Academy of Science, Allahabad

These three apex Science bodies have recommended that a four-year Bachelor of Science (BS) Course be introduced to allow greater freedom in subject choices that has been long denied to students across India.

According to the revised educational qualification for CSIR-NET, BS- 4 years programme students can now appear CSIR-NET exam for JRF directly after completion of their 3rd year as notified vide CSIR advertisement No. 10-2(5)/2012(i)-EU-II published in Employment News dated 18th-24th February, 2012

Nature and orientation of the Programmes

The B.S. and B.Tech. courses being offered by Gauhati University offer a holistic approach to the study of basic science and applied subjects, and provide need-based, innovative courses to equip the students of the state and the N.E. region to obtain suitable employment. This will create and nurture the state-of-the-art environment for systematic, in-depth and concerted study of Science and Technology.

The B.S. programme has been designed integrating training in the methods of scientific enquiry, studies of humanities and social sciences, and exposure to research methodology. The contemporary cutting-edge questions of the Life Sciences, Human Biology and Anthropology cannot be solved without knowing and applying concepts, tools and techniques of Physics and Chemistry, Mathematics and Computation. The introduction of the four-year B.S. course is intended to satisfy such requirements.

Course Delivery and Progression

The various courses of the B.S. and B.Tech. Programmes are taught within Credit-based semesters governed by the regulations of the Semester System and Choice-based Credit System as followed at present in the University. In the last two years of a B.S. Programme, students will be able to choose a major subject and will be required to complete a research project in the final Semester. For both the B.S. and B.Tech. Programmes, there will be a provision for transfer of credits. Moreover, students of both Programmes will be required to follow common courses on the fundamentals in Physics, Chemistry, Mathematics, Biology, Earth Sciences, Computational Skills, Communications, Workshops and Laboratory work during the first two years. Such a requirement is multidisciplinary in its approach, and will provide adequate exposure to knowledge and skills essential for quality research for students of both the Programmes.

Provision of course transfer

There will be a provision for switching over from a B.Tech. Programme to a B.S. Programme and also within the different branches of B.Tech. and B.S., based on the availability of vacant seat in a batch, and also on the performance in the first year of studies, and subject to his/her fulfilling other conditions as laid down in the regulations for the Programmes.

Integrated B.S./B.Tech.-MBA:

Value-additions through integration of Management Courses A unique aspect of Gauhati University's initiative to introduce B.S. and B.Tech. Programmes is the opportunities for a select number of eligible students to simultaneously pursue additional courses on Management. On completing the coursework and other requirements of the B.S./B.Tech. and MBA-integrated Programmes, these students will be eligible for the award of dual degrees, — a degree in B.S./B.Tech. and a degree in Management (MBA) separately, within a span of five years itself.

Placement

The B.S. and B.Tech. Programmes have been specifically designed and intended for those students who are likely to opt for Higher Studies and Research. At the same time, the Four-Year B.S. and B.Tech. graduates, as well as the postgraduates with the MBA-integrated B.S./B.Tech. degrees, will have ample opportunities to get absorbed in high profile jobs in Research and Development Institutes and Industries – with or without the help of the Placement Cell of the University.

Programmes of Studies

4 year B.S. Programmes:

1. B.S. in Physical Science
2. B.S. In Chemical Science
3. B.S. in Mathematical Science
4. B.S. in Medical Biotechnology

4 year B.Tech. Programmes:

- i. B.Tech in Electronics and Communication Technology
- ii. B.Tech. in Computer Science & Engineering
- iii. B.Tech. in Information Technology
- iv. B.Tech in Biotechnology

2 year M.Tech. Programmes:

- i. M.Tech in Electronics and Communication Technology
- ii. M.Tech. in Information Technology,

Number of Seats

Branch	No of seats (excluding self financed category)	No of seats in self financed category (CEE Qualified)	No of seats in self financed category from states of North East other than Assam
B.S. in Physical Science	10	0	0
B.S. In Chemical Science	10	0	0
B.S. in Mathematical Science	10	0	0
B.S. in Medical Biotechnology	10	0	0
B.Tech in Electronics and Communication Technology	25	6	1 seat from Arunachal Pradesh, 1 from Manipur
B.Tech. in Computer Science & Engineering	25	6	1 seat from Tripura, 1 from Sikkim
B.Tech. in Information Technology	25	6	1 seat from Nagaland, 1 from Meghalaya
B.Tech in Biotechnology	15	2	1 seat from Mizoram
Total:	130	20	7

No. of Seats in M.Tech. Programmes:

- i. M.Tech in Electronics and Communication Technology-21 (including part time)
- ii. M.Tech. in Information Technology-25 (including part time)

Admission Process

(a) Eligibility

Course	Eligibility	Admission criteria
B.S. (4 yrs) Physical Science, Chemical Science, Mathematical Science	10+2 (Science) with Physics, Chemistry and Mathematics with minimum 60% of marks in 10+2 final exam.	On the basis of aggregate marks obtained in Physics, Chemistry, and Mathematics in 10+2 exam.
B.S. (4 yrs) Medical Biotechnology	10+2 (Science) with Physics, Chemistry, Mathematics and Biology/ Biotechnology having at least pass marks in each subject with minimum 60% of marks in 10+2 final exam.	On the basis of aggregate marks obtained in Physics, Chemistry and Biology/ Biotechnology in 10+2 exam.

Course	Eligibility	Admission criteria
B.Tech. (4 yrs.) In Electronics & Communication Technology, Computer Science and Engineering, Bio Technology, Information Technology	As per CEE (Assam) norms	As per CEE rank Students will be admitted through the common counseling of CEE-Assam as notified by the Director of Technical Education, Assam.

Course	Eligibility	Admission criteria
B.Tech (lateral entry to 2nd year) In Electronics & Communication Technology, Computer Science and Engineering, Bio Technology, Information Technology	3-year Polytechnic Diploma or equivalent in the concerned branch	Admission Test to be conducted by respective departments, GU

Course	Eligibility	Admission criteria
M.Tech. in Electronics and Communication Technology (2 yrs): Full Time and Part Time	M.Sc. (El.Sc./ECT/Instr.) or B.Tech./B.E. in Elect. & Commn./ Instrumentation /Electrical or equivalent	Admission Test to be conducted by respective departments, GU. For part time category, minimum 3 years professional experience required. For details, refer prospectus.
M.Tech. in Information Technology (2 yrs) : Full Time and Part Time	BE/BTech in CSE/IT/ECE/ MCA /M.Sc.-IT/M.Sc.-CS/ M.Sc.-Maths and Computing or equivalent	

M.Tech. Part-Time Category: In addition to the above mentioned academic qualifications, candidates must have at least 3 years professional (Teaching/research/technical) experience in the discipline of his or her qualification/branch applied for. The candidate has to submit a No Objection Certificate from the employer stating that the applicant will be allowed to attend classes at the IST-GU for the courses registered. The official format of the No Objection Certificate for Part Time Category applicants should be collected from the IST-GU office.

(b) Obtaining application forms for admission

Prescribed application forms for admission to the B.S./B.Tech/M.Tech. programmes are made available along with this Prospectus at the cost of Rs. 300/- (Rupees Three Hundred only) each, at the

- (i) IST-Gauhati University
- (ii) G.U. Information Centre, WUS Building, Ambari, Guwahati-1 from 20th June, 2012 on all working days.

The payment may be made at the G.U. Cash Counter or by Bank Draft in favour of the IST, Gauhati University and payable at Guwahati. Requests by post must be accompanied by a Demand Draft and a self-addressed envelope of 25cm x 31 cm size with postage stamp of Rs. 25/- (Rupees Twenty-five only).

The application form for admission may also be downloaded from the Website at www.gauhati.ac.in . In that case, a Bank Draft of Rs. 300/- (Rupees Three Hundred only) for each application in favour of the IST, G.U., and payable at Guwahati should be attached along with the filled-in application form.

c) Reservation of Seats

Reservation shall be as per G.U. Rules. The candidates seeking admission on reserved quota viz. SC, ST, OBC and MOBC shall be given relaxation up to 5% (Five percent) of the marks prescribed for eligibility criteria. The relaxation will not be applicable to candidates seeking admission on any other reserved quota.

- (i) Reservation for Permanent residents of Assam

- a. Scheduled Caste 7%
- b. Scheduled Tribe (Plains) 10%
- c. Scheduled Tribe (Hills) 5%
- d. O.B.C. and M.O.B.C. 15%
- e. Differently able persons 1 seat in B.S. and 3 seats in B.Tech.

Other Reserved Seats:

- A. 7 seats in B.Tech. (Self Financed category), 1 seat for each of the states of North East other than Assam. Please contact respective State's Directorate of Higher Education/Technical Education.
- B. Employee of GU*: 1 in B.S. and 1 in B.Tech. (Please collect additional form and guidelines for applying to this category)
- C. Students with Extra and Co Curricular efficiency*: 1 in B.S. and 1 in B.Tech. (Please collect additional form and guidelines for applying to this category)
- D. Fringe Village *: 1 in B.S. and 1 in B.Tech. (Please collect guidelines for this category, and apply separately)
* Extra forms for these categories are available in the office of the Secretary, University Classes, and need to be submitted with the admission form.

(d) Submission of filled-in forms

There is no need for submission of forms for B.Tech. admission. Since the admission will be through the common counseling of the CEE, the allotted students from CEE may submit the form at the temporary counter, CEE Counseling Venue during the counseling days. However, students applying for Reserve Categories (Self Financed, NE State, GU Employee, Fringe Village, Extra and Co curricular) are required to submit the application forms. Such application forms are to be submitted in the office of the IST-GU.

Application forms for B.S., B.Tech. (Lateral Entry), and M.Tech. courses will be received at the Respective Department Offices (Old BT Hostel Premises).

Last dates of Submission of Forms:

BS: 30th June, 2012

BTech (Self Financed, NE State, GU Employee, Fringe Village, Extra and Co curricular): Last day of the first phase of CEE Counseling dates.

M.Tech.: 18th July, 2012

(e) Documents to be attached to application form

Attested copies of the following:

- i. Admit card of CEE (for B.Tech. only)
- ii. HSLC pass certificate/Admit Card as proof of age
- iii. Higher Secondary pass certificate
- iv. Mark sheet of HSLC examination
- v. Mark sheet of HS examination
- vi. Caste certificate for SC/ST/OBC candidates from appropriate authority
- vii. Mark sheet and certificate of diploma exam for B.Tech Lateral Entry
- viii. Mark sheet and certificate of the respective qualifying exam for M.Tech.
- ix. Appropriate documents for applying to the other reserved categories

(f) List of selected candidates and Admission Procedures**B.Tech. :**

B.Tech. admission will be based on the counselling for CEE qualified candidates. The counselling dates are notified by the Director of Technical Education, Assam.

Seats will be allotted to the selected candidates during the CEE counselling, and the selected candidates will have to deposit the processing fee of Rs. 1000.00 at the counselling venue. All the candidates who deposit the processing fee have to take admission at the IST-GU office on a date notified during the counselling days. Normally this admission date will be within a week from the last counselling date.

B.S.:

List of Selected candidates for B.S. programmes will be notified on 5th July, 2012 in the notice board of IST-GU, and also in www.gauhati.ac.in.

Date of admission will also be notified in the same notification.

M.Tech.:

Selection will be based on admission test to be conducted by respective departments. GATE qualified candidates will be given preference for admission. List of eligible candidates for appearing the entrance test and the date of test will be notified on 25th July, 2012.

(g) Commencement of Classes

Classes for the 1st year students will start from the First Week of August, 2010.

(h) Uniform

Students admitted to the B.S./B.Tech. Programmes will be required to wear uniforms prescribed by the University. Particulars in this regard will be announced during the time of admission.

(i) Hostel Facilities

Few hostel seats may be available in the University hostels depending on the availability.

Rented rooms and houses are nowadays available in the surrounding areas of the University, where many University students stay.

(j) Schedule of Fees (B.S./B.Tech./M.Tech.)

The Fees for the First and Second Semester s will be as follows:

Tuition fee:	Rs. 20,000/- per semester
Admission Fee:	Rs. 10,000/- per year
Other Fees:	Rs. 2,000/- per year
Examination Fees:	Rs. 1100/- per semester

Total Fees for each Semester (1, 3, 5 and 7) : Rs. 33,100/-

Total Fees for each Semester (2, 4, 6 and 8): Rs. 21,100/-

(k) Self-financed category seats

Application in prescribed format, available in the IST-GU Office, expressing interest to be considered for self-financed category seats will have to be submitted at the IST-GU Office, or at the CEE counselling venue.

Last date of submission of such applications for B.Tech. programme is the last date of first round of CEE counselling.

A one-time fee of Rs. 1,00,000/- (Rupees One Lakh only) (in the form of a DD in favour of IST-GU) will have to be paid at the time of Admission, over and above the semester fees mentioned above.

Institute of Science and Technology-Gauhati University:

The Institute of Science and Technology, Gauhati University (IST-GU) coordinates the admission, examination and other common academic and administrative procedures of the programmes- B.S., B.Tech., M.Tech. & Ph.D.

IST-GU Administration:

Director Incharge: Prof. Pranayee Datta

Head of the Departments:

- | | |
|--|------------------------------------|
| 1. Biological Science | : Prof. Manab Deka |
| 2. Biotechnology and Bioengineering | : Prof. Mohan Chandra Kalita (i/c) |
| 3. Computer and Information Technology | : Prof. Shikhar Kr. Sarma |
| 4. Electronics and Communication Engineering | : Mr. Kandarpa Kr. Sarma (i/c) |
| 5. Chemical Science | : Prof. Chitrani Medhi (i/c) |
| 6. Mathematical Science | : Prof. Helen K. Saikia (i/c) |
| 7. Physical Science | : Prof. Pranayee Datta (i/c) |

Coordinators of Administration and Logistics:

1. Prof. Pranayee Datta
2. Prof. Dibakar Ch. Deka
3. Prof. Pratap J. Handique
4. Prof. Shikhar Kr. Sarma

Convenor-Academic Committees:

1. B.Tech.- Prof. Anjana Kakati Mahanta
2. B.S. – Prof. Chitrani Medhi

Incharge, Students Counseling and Placement : Prof. Pranhari Talukdar

Address and contact:

Institute of Science and Technology
Gauhati University
(Old B T Hostel Premises)
Guwahati 781014, Assam, India
Phone: +91-3612672233

General Information and Rules

1. No student shall be admitted to any course of studies as aforesaid if he/she is found to have indulged in activities detrimental to academic interest.
2. No student shall be admitted to more than one course in the same shift.
3. A student who is found to violate University rules shall be liable to expulsion.
4. If a student's involvement in any incident of ragging comes to the notice of the authority, such a student would be given liberty to explain, and if his/her explanation is not found satisfactory, that student will be expelled from Gauhati University.
5. A student who is found to have indulged in consumption of drugs or intoxicating drinks, gambling and other immoral activities shall be liable to expulsion.
6. Students admitted to various courses of studies are required to participate in instructions (Lectures, tutorials, seminars, laboratory works and other academic activities) as prescribed in the relevant Regulations and shall be expected to participate in the co-curricular and Extra Curricular activities organised by Department or by the University. They are expected to appear at the examination due at the end of the course of studies. Students who fail to do so without assigning sufficient reasons to the satisfaction of the competent authority shall not be permitted to continue their studies in the following year.
7. Attendance in Classes is compulsory. To be eligible to sit for the Examinations the students should have at least 75% of attendance of lectures (separately for the theoretical and practical classes) as prescribed in the concerned Regulations.
8. Each Academic session will run as per the Academic Calendar.
9. Fees are to be paid for admission by the candidates, if selected on the date as notified, other-wise seats will be cancelled and filled up by candidates next in the list.
10. The admission will be granted in accordance with the provision made in the Ordinance and Regulations and other rules of the University.
11. The students shall have to comply with the Regulations for the course, Rules and Orders as may be prescribed by the University authority from time to time.
12. The decision of Executive Council on all matters relating to students' indiscipline shall be final and binding.

PROFILES OF THE CONCERNED DEPARTMENTS:

DEPARTMENT OF BIOLOGICAL SCIENCE

The Department of Biological Science is offering four year B.S course in Medical Biotechnology, first of its kind in the entire North East India from this academic session (2012-2013). Keeping into perspective the scopes and prospects in the field of Medical Biotechnology, the course has been designed for producing professional graduates and qualified manpower to undertake critical works in the field of Biomedical Sciences. The students will be given theoretical and practical knowledge on molecular biology and genetics, molecular diagnostics and pathology for clinical diseases and application of Biotechnology in Medical Science. Upon completion of the course, the students are expected to be absorbed in research and development labs, quality control labs, clinical research labs, in private companies and in medical colleges and health centers, or the students may undergo for higher studies such as MS or PhD course to widen their scope. The Department is having three highly qualified faculty members at present and more professional faculty members are expected to join the department in near future. The Department has well established laboratory facility for practical experiments and the required instruments for medical diagnostics are there for the said course. The Department is running seven projects at present and four projects in collaboration with MAMC, New Delhi; B B Cancer Institute, Guwahati and other Institutes of repute.

1. Year of establishment : 2011
2. Head of the Department : Prof. Manab Deka
3. Details of academic staff :

SI No	Name of the teacher	Qualification	Specia-lization	Designation
1	Prof. Manab Deka	MSc., Ph.D	Clinical and Applied Microbiology, Biomedical Science.	Professor
2	Dr. Subhash Medhi	MSc., Ph.D	Molecular Virology and Cancer Genetics	Asst. Professor
3	Dr.Nirala Ramchiary	M.Sc.(UASD, Karnataka) Ph.D. (Delhi University), Postdoctoral Research Scientist (CNU, Daejeon, Korea)	Molecular Genetics and Genomics	Asst. Professor

Courses offered:

1. B.S. in Medical Biotechnology
2. Ph.D. in Biological Science

DEPARTMENT OF BIOTECHNOLOGY AND BIOENGINEERING

The Department of Biotechnology and Bioengineering, Gauhati University was established in the year 2009 with the aim to promote academic cum research programme in Biotechnology and Bioengineering through up-to-date curricula for developing trained manpower in its various branches. The department is presently running B.Tech Programme in Biotechnology with an intake capacity of 20 students. The Department is all set to ensue the M.Tech Programme from the next session (2012-2013). All the faculty members of this department are actively involved in their routine academic as well as research works. There are two ongoing major research projects in the department.

1. Year of establishment : 2009
2. Head of the Department : Prof. M. C. Kalita (Incharge)
3. Details of academic staff :

Sl No	Name of the teacher	Qualification	Specia-lization	Designation
1	Dr. Debabrat Baishya	MSc., Ph.D	Microbial Biotechnology	Asst. Prof.
2	Dr. Sofia Banu	MSc., Ph.D	Plant Molecular Biology	Asst. Prof.
3	Dr. Kandarpa Kr. Saikia	MSc., Ph.D	Medical Biotechnology	Asst. Prof.

Courses offered:

- B.Tech. in Biotechnology**
- Ph.D. in Biotechnology and Bioengineering**

DEPARTMENT OF CHEMICAL SCIENCE

The Department of Chemical sciences is the first one in the country established by the Gauhati University in the year 2009 for teaching four years Bachelor of Science (B.S) programme. The course is designed for perusing high quality training to the graduate(B.S) and post graduate(M.S) students. The Department offers a General Chemistry courses in the first year, and then advanced Organic, Physical, Inorganic courses Chemistry and Special papers from the second year onwards. The students are trained with basic knowledge of Physics, Mathematics, Electronics, Humanities, Research methodology, environmental sciences, Computation etc in addition to Chemistry.

1. Year of establishment : 2009
2. Head of the Department : Prof. Chitrani Medhi (i/c)
3. Details of academic staff :

Sl. No.	Name of the teacher	Qualification	Specia-lization	Designation
1.	Dr.Pranjal Saikia	M.Sc, Ph.D	Inorganic Chemistry	Asst. Prof.
2.	Dr. Bipul Bezbaruah	M.Sc, Ph.D	Physical Chemistry	Asst. Prof.
3.	Dr. Pranjal K Baruah	M.Sc, Ph.D	Organic Chemistry	Asst. Prof.
4.	Dr. Debajani Basumatary	M.Sc, Ph.D	Physical Chemistry	Asst. Prof.

Course offered :-

- BS in Chemical Science**
- Ph.D. in Chemical Sciences**

DEPARTMENT OF COMPUTER & INFORMATION TECHNOLOGY

The Department of Computer and Information Technology under the Faculty of Technology, GU has been established to facilitate state of the art infrastructure for different Undergraduate, Postgraduate and Research programmes in the field of Computer and Information Technologies. Computer Science, Computer Engineering and Information Technology have been widely accepted disciplines in the students fraternity across the globe. The rising demands of the trained and skilled personals in those fields have been motivating and inspiring the students to undertake different programmes of studies. Looking at the need of local students different programmes have been started meeting demands at different levels of studies. The Postgraduate and Research programmes are designed to build the capacity of the region in terms of human resource and local intellectual and technological resources.

1. Year of establishment : 2009
2. Head of the Department : Prof. Shikhar Kr. Sarma

3. Details of academic staff :

SI No	Name of the teacher	Qualification	Specialization	Designation
1	Prof. Shikhar Kr. Sarma	MSc.,PGDI, Ph.D	NLP, Expert System, Networks	Professor
2	Mirzanur Rahman	MTech.	IT	Asst. Prof.
3	Vaskar Deka	MTech.	IT	Asst. Prof.
4	Parishmita Sarma	MTech.	IT	Asst. Prof.
5	Nabamita Dey	MTech.	IT	Asst. Prof.

Course offered :-

1. **M.Tech. in Information Technology**
2. **B.Tech. in Computer Science & Engineering**
3. **B.Tech. in Information Technology**
4. **Ph.D. in Information Technology**

DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

The Department of Electronics and Communication Engineering was constituted during the session 2009-10. The primary strength of the department is in the areas of Soft-Computing, Digital Signal Processing, Communication, Computer Vision, Biomedical Signal Processing and VLSI design. The department presently has ergonomically designed laboratories and related facilities in a controlled-environment to fulfill the requirements of B.Tech, M.Tech programmes. It has a mix of analog and digital equipments for hardware design, microprocessor and microcontroller programming, independent computing facilities to perform simulation based design using Matlab R2010 a, Remcom wireless suite, Mathematics, Multisim etc software of which complete support and related services are available. The department also has a well stocked library of its own. All classrooms and laboratories are equipped with contemporary audio-visual aids.

1. Year of establishment : 2009
2. Head of the Department : Kandarpa Kr. Sarma (Incharge)
3. Details of academic staff :

SI No	Name of the teacher	Qualification	Specialization	Designation
1	Jyoti Prakash Medhi	MTech.	Bio-Electronics	Asst. Prof.
2	Anjan Kumar Talukdar	MSc.,M-Tech	Bio-Electronics	Asst. Prof.
3	Manash Pratim Sarma	MSc.,M-Tech	Electronics Design & Technology	Asst. Prof.
4	S.R.Nirmala	MTech.	Industrial Electronics	Asst. Prof.
5	Apurba Bikash Kalita	M-Tech	Electronics Design & Technology	Asst. Prof.

Course offered :-

1. **M.Tech. in Electronics and Communication Technology**
2. **B.Tech. in Electronics and Communication Engineering**

DEPARTMENT OF MATHEMATICAL SCIENCE

The objective of the B.S. programme in Mathematical Science is to train the students in the frontiers of Mathematical Science. Methodological teaching with contemporary topics of Mathematical Science is of prime concern. Newly developed topics like Numerical Linear Algebra, Computer Algebra, Wavelets and Applications, Stochastic Process, Financial Mathematics, Fuzzy Sets and Application, Graph Theory, and Dynamically System are included in the

syllabus so that the students get exposure to the new development of the discipline. One of the unique features of the programme is to make the students take up challenges in topics starting from Algebra to Financial Mathematics. Future plans of the department include the introduction of M.S. programme.

1. Year of establishment : 2009
2. Head of the Department (i/c) : Prof. Helen K. Saikia (Incharge)
3. Details of academic staff :

SI No	Name of the teacher	Qualification	Specialization	Designation
1	Dr Sunanda Naik	M.Sc.,M.Phil, Ph .D	Special Functions, Complex Analysis, Theory of function Spaces.	Asst. Prof.
2	Mr Jituparna Goswami	M.Sc.	Algebra, Graph Theory, Topology.	Asst. Prof.
3	Mr Manas Dutta	M.Sc.	Mathematics and computation.	Asst. Prof.

Course offered :

1. **B.S. in Mathematical Science**
2. **Ph.D. in Mathematical Science**

DEPARTMENT OF PHYSICAL SCIENCE

The Department of Physical Science, established in 2009, has the objective of providing the students with quality education in Physical Science at the UG and PG levels. The 4-year B.S Programme in Physical Science was introduced in 2009, and the students undergoing this Programme will be completing their course in 2013.

The B.S Physical Science course curriculum has been designed as an intersection of abstract sciences and applied sciences, incorporating courses like Quantum Mechanics, Special and General Theory of Relativity, Electronics and Instrumentation, Modern Optics, Space and Astrophysics etc. The future plan of the Department includes introduction of M.S Programmes in Physical Science, Nano Science and Technology and in other related areas.

1. Year of establishment : 2009
2. Head of the Department : Prof. Pranayee Datta (In-Charge)
3. Details of academic staff :

SI No	Name of the teacher	Qualification	Specialization	Designation
1	Dr. Suparna Bhattacharjee	M.Sc. Ph.D.	Condensed Matter Physics	Asst. Prof.
2	Dr. Eeshankur Saikia	M.Sc. Ph.D.	Electronics, Astronomy & Astrophysics	Asst. Prof.
3	Dr. Archana Bora	M.Sc. Ph.D.	Astronomy & Astrophysics, Neural Networking	Asst. Prof.
4	Dr. Madhurjya Modhur Borgohain	M.Sc. Ph.D.	Condensed Matter Physics	Asst. Prof.
5	Prof. Kamalendu Deb Krori	M.Sc. Ph.D.	Theoretical Physics, Relativity & Cosmology	Guest Faculty: Prof. (retd), Deptt of Physics, Cotton College

Courses offered :

1. **B.S. in Physical Science**
2. **Ph.D. in Physical Sciences**

B.S. / B.Tech. Course Structure

Semester 1 (first year)

Course Code	Course Title	Lecture	Tutorial	Practical	Credits	Contact hours
PH111	Physical Science-I	3	0	2	5	7
CH111	Chemical Science-I	3	0	2	5	7
MA111	Mathematical Science-I	3	0	0	3	3
BI111	Biological Science-I	3	0	0	3	3
CS111	Computer Fundamentals and Programming-I	3	0	2	5	7
HS111	English Language Skills-1	2	1	0	3	3
	Total	17	1	6	24	30
	Total weekly hours	30				
	Total Semester credits	24				

Semester 2 (first year)

Course Code	Course Title	Lecture	Tutorial	Practical	Credits	Contact hours
PH121	Physical Science-II	2	0	2	4	6
CH121	Chemical Science-II	2	0	2	4	6
MA121	Mathematical Science-II	2	1	0	3	3
BI121	Biological Science-II	2	0	1	3	4
GE121	Engineering Graphics	0	0	1	1	2
EL121	Electrical Circuits	2	0	1	3	4
CS121	Computer Fundamentals and Programming-II	3	0	1	4	5
	Total	13	1	8	22	30
	Total weekly hours	30				
	Total Semester credits	22				

Specific Courses:

The course summary given below indicates the courses from the second year onwards that are specific to individual B.S. and B.Tech. Programmes.

The first column contains the course code and the second column states the course title (details of break-up of lectures, tutorials, practical and credits for each semester will be provided to students at the appropriate time).

B.S. in Chemical Science:

Semester 3 (second year)

Code	Course Title
CS211	Data and File Structure
CH211	Stereochemistry and Reactions in organic chemistry
CH212	Basic Inorganic Chemistry
CH213	Thermodynamics and electrochemistry
CH214	Organic Chemistry laboratory
HS211	Environmental Science
GE211	Workshop Practice

Semester 4 (second year)

Code	Course Title
CH221	Advanced Organic Chemistry
CH222	Advanced Inorganic Chemistry
CH223	Quantum Chemistry
CH224	Advanced Physical Chemistry
CH225	Inorganic Chemistry Laboratory
HS221	Research Methodology

Semester 5 (third year)

Code	Course Title
CH311	Macrocycles, Rings and Polymers
CH312	Bio-inorganic Chemistry and Supramolecular Chemistry
CH313	Statistical Mechanics and Dynamics
CH314	Heterocyclic Chemistry
CH315	Physical Chemistry Laboratory
HS31X	Humanities Elective -1

Semester 6 (third year)

Code	Course Title
CH321	Industrial Chemistry
CH322	Molecular spectroscopy
CH323	Symmetry and Group Theory
CH324	Chemistry of Natural Products
CH325	Advanced Laboratory -I
MG321	Financial and Cost Accounting

Semester 7 (fourth year)

Code	Course Title
CH411	Biochemistry
CH412	Green Chemistry and Techniques in Environmental Chemistry
CH413	Applications of Modern Instrumental Methods

CH414	Quantum Computing and Molecular Modeling in Chemistry
CH415	Advanced Laboratory -II
HS41X	Humanities Elective - 2

Semester 8 (fourth year)

Code	Course Title
CH421	Project/Dissertation

B.S. in Mathematical Science:

Semester 3 (second year)

Code	Course Title
MA211	Mathematical Science-III
MA212	Algebra
MA213	Discrete Mathematics
MA214	Linear Algebra
CS211	Data and File Structure
EL211	Basic Electronics
HS211	Environmental Science
GE211	Workshop Practice

Semester 4 (second year)

Code	Course Title
MA221	Numerical Linear Algebra
MA222	Real Analysis
MA223	Number Theory
MA224	Probability Theory
MA225	Object Oriented Programming
HS221	Research Methodology

Semester 5 (third year)

Code	Course Title
MA311	Complex Analysis
MA312	Calculus of Variation and Integral Equation
MA313	Operation Research
MA314	Formal Language and Automata
MA315	Numerical Analysis
HS31X	Humanities Elective 1

Semester 6 (third year)

Code	Course Title
MA321	Topology
MA322	Measure and Integration
MA323	Theory of Computation
MA324	Advanced Algebra
MA325	Introduction to Continuum Mechanics
MG321	Financial and Cost Accounting

Semester 7 (fourth year)

Code	Course Title
MA411	Functional Analysis
MA412	Differential Equation
MA413	Seminar
MA41X	Elective 1
MA41X	Elective 2
HS41X	Humanities Elective 2

Semester 8 (fourth year)

Code	Course Title
MA42X	Elective 3
MA42X	Elective 4
MA423	Project

B.S. in Physical Science:

Semester 3 (second year)

Code	Course Title
PH211	Mechanics
PH212	Heat and Thermodynamics
EL211	Basic Electronics
CS211	Data and File Structure
HS211	Environmental Science
GE211	Workshop Practice

Semester 4 (second year)

Code	Course Title
PH221	Mathematical Physics
PH222	Hydrostatic and Hydrodynamics
PH223	Modern Optics
PH224	Magnetism and Magnetic Properties of Matter
PH225	Physics Lab
PH226	Project
EL222	Linear Active Circuit
HS221	Research Methodology

Semester 5 (third year)

Code	Course Title
PH311	Special and General Theory of Relativity
PH312	Classical Mechanics
PH313	Electrodynamics
PH314	Elements of Electronics and Instrumentation
PH315	Lab - I
PH316	Lab - II
HS31X	Humanities Elective 1

Semester 6 (third year)

Code	Course Title
PH321	Quantum Mechanics
PH322	Laser and Holography
PH323	Condensed Matter Physics
PH324	Numerical Analysis & Computational Physics
MG321	Financial and Cost Accounting

Semester 7 (fourth year)

Code	Course Title
PH411	Atomic Physics
PH412	Nuclear Physics
PH413	Space and Astrophysics
PH414	Analytical Instrumentation and Industrial Training
HS41X	Humanities Elective 2

Semester 8 (fourth year)

Code	Course Title
PH421	Project/Dissertation

(ii) Four-year B.TECH. Programmes

B.Tech. in Biotechnology :

Semester 3 (second year)

Code	Course Title
BT211	Microbiology
BT212	Cell Biology
BT213	Genetics
BT214	Biochemistry-I
BT215	Biostatistics
HS211	Environmental Science
GE211	Workshop Practice

Semester 4 (second year)

Code	Course Title
BT221	Immunology
BT222	Molecular Biology
BT223	Enzyme Technology
BT224	Biochemistry-II
HS221	Research Methodology

Semester 5 (third year)

Code	Course Title
BT311	Microbial Process Engineering
BT312	Recombinant DNA Technology
BT313	Plant Biotechnology
BT314	Animal Biotechnology
HS31X	Humanities Elective - 1

Semester 6 (third year)

Code	Course Title
BT321	Fermentation Technology
BT322	Process Control & Design
BT323	Tissue Culture
BT324	Food Biotechnology
BT325	Bioinformatics
MG321	Financial and Cost Accounting

Semester 7 (fourth year)

Code	Course Title
BT411	Medical Biotechnology
BT412	Protein Engineering
BT413	Commercial Biotechnology
BT414	Environmental Biotechnology
BT415	Proteomics, Transcriptomics, Metabolomics and Nanobiotechnology (concepts)
HS41X	Humanities Elective - 2

Semester 8 (fourth year)

Code	Course Title
BT421	Industrial Biotechnology
BT422	Molecular & Cellular Diagnostics
BT423	Bioethics & IPR
BT424	Project Work/Dissertation

B.Tech. in Computer Science & Engineering:**Semester 3 (second year)**

Code	Course Title
CS211	Data and File Structure
CS212	Computational Mathematics
EL211	Basic Electronics
EL212	Digital Systems
GE211	Workshop Practice
EL212	Material Science and IC Process Technology
GE213	Engineering Mechanics
HS211	Environmental Science

Semester 4 (second year)

Code	Course Title
CS221	Computer Organization and Architecture - I
CS222	Systems Programming
CS223	Discrete Mathematics
CS224	Object Oriented Programming
CS225	Database Management System
HS221	Research Methodology

Semester 5 (third year)

Code	Course Title
CS311	Algorithms and Complexity Theory
CS312	Operating System
CS313	Software Engineering
CS314	Data Communication
CS315	Engineering Statistics and Random Processes
HS31X	Humanities Elective - 1

Semester 6 (third year)

Code	Course Title
CS321	Theory of Computations
CS322	Computer Networks
CS323	Programming Languages
CS324	Embedded System
CS325	Seminar
MG321	Financial and Cost Accounting

Semester 7 (fourth year)

Code	Course Title
CS411	Artificial Intelligence
CS412	Computer Organization and Architecture-II
CS413	Computer Graphics and Multimedia
CS414	Compiler Design
CS41X	Elective 1
CS41X	Elective 2
HS41X	Humanities Elective - 2

Semester 8 (fourth year)

Code	Course Title
CS421	Project

List of Electives

1. Web Programming Technologies
2. Data Mining and Warehousing
3. Advanced Embedded System
4. Functional and Logic programming
5. Fuzzy Logic and Neural Networks
6. Queuing theory and Operation Research
7. Applied Graph Theory and Algorithms
8. Agent Technologies
9. Decision Support System
10. E-Commerce
11. E-Learning
12. Knowledge Based Systems
13. Management Information Systems
14. Mobile Computing
15. Software Project Management
16. Software Testing and Quality Assurance
17. System Administration and Networking
18. Wireless Communication and Networks

**B.Tech. in Electronics &
Communication Technology :****Semester 3 (second year)**

Code	Course Title
EL211	Basic Electronics Digital Systems
GE211	Workshop Practice
GE212	Material Science and IC Process Technology
HS211	Environmental Science

Semester 4 (second year)

Code	Course Title
EL221	Electromagnetics
EL222	Linear Active Circuit
EL223	Microprocessor
EL224	Control System
EL 225	Communication System
EL 242	Instrumentation
HS221	Research Methodology

Semester 5 (third year)

Code	Course Title
EL311	Web Technology
EL312	Communication Systems
EL313	Power Electronics
EL314	Optoelectronics
EL315	Mechatronics and Electronics System Design

EL316 Lab: Communication System
and

HS31X Computational
Humanities Elective -1

Semester 6 (third year)

Code	Course Title
EL321	TV Engineering
EL322	Digital Signal Processing
EL323	Digital Communication System
EL324	Microcontroller
EL325	Photonics
EL326	Lab: Electronics Design
MG321	Financial and Cost Accounting

Semester 7 (fourth year)

Code	Course Title
EL411	Digital Image Processing Robotics Communication Networks VLSI Design Information Theory Advance Architecture
EL412	DSP Processor
EL413	Mobile Communication
EL414	Project Phase I
EL415	Advance Electronic Design
HS41X	Humanities Elective -2

Semester 8 (fourth year)

Code	Course Title
EL421	Project Phase-II Nano Technology Neural Networks Bluetooth Embedded System Bioelectronics Speech Processing Optical Communication
EL422	Entrepreneurship development
EL423	Seminar & Term Paper

B.Tech. in Information Technology:

SEMESTER 3

Course Code	Course Title
CS211	Data and File Structure
CS212	Computational Mathematics
EL211	Basic Electronics
EL212	Digital Systems
GE211	Workshop Practice
GE212	Material Science and IC Process Technology
GE213	Engineering Mechanics
HS211	Environmental Science

SEMESTER-4

Course Code	Course Title
IT221	Computer Organization and Architecture
IT222	Computer Hardware and System Administration
CS223	Discrete Mathematics
CS224	Object Oriented Programming in C++
IT223	Design and Analysis of Algorithms
HS221	Research Methodology

SEMESTER-5

Course Code	Course Title
IT311	Operating System
CS312	Database Management System
CS313	Software Engineering
CS314	Data Communication
IT312	Finite Language and Automata Theory
HS31X	Humanities Elective/ English Language Skills-II

SEMESTER-6

Course Code	Course Title
IT321	Web Technologies
IT322	Computer Networking and Internet Technologies
IT323	Coding and Information Theory
IT324	Computer Graphics and Multimedia
IT325	Java Programming
MG321	Financial and Cost Accounting

SEMESTER-7

Course Code	Course Title
IT411	AI and Intelligent Systems
IT412	Wireless and Mobile Networks
IT413	Software Testing and Quality Assurance
IT414	Cryptography and System Security
ITXXX	Elective -1
ITXXX	Elective -2
HS41X	Humanities Elective / Foreign Language

SEMESTER-8

Course Code	Course Title
IT421	Project

List of Electives

1. Advanced Web Technologies
2. Agent Technologies
3. Applied Graph Theory
4. Bio Informatics
5. C# and .Net framework
6. Data Mining and Warehousing
7. Decision Support Systems
8. Digital Image processing
9. Digital signal processing
10. Distributed Systems
11. E-Commerce
12. E-Learning
13. Enterprise Resource Planning
14. GIS and Remote Sensing

15. Grid Computing
16. High speed networks
17. Knowledge Based Systems
18. Linux Kernel
19. Management Information Systems
20. Natural Language Processing
21. Real time systems
22. Service Oriented Architecture
23. Soft computing
24. Software Project Management

Courses for Humanities Elective I

1. Educational Management I
2. English Language Skills – II
3. Elements of Economics
4. History of Science & Technology in India
5. Philosophy of Science I
6. Introduction to Psychology
7. Organisational Behaviour I
8. Cognitive Psychology

Courses for Humanities Elective 2

1. Educational Management II
2. Indian Economy in the Global Context
3. India's Struggle for Freedom
4. Philosophy of Science II
5. Organisational Behaviour II
6. Environmental Psychology
7. Foreign Language

MBA INTEGRATED PROGRAMME:

Five-year MBA-integrated Programmes

(a) B.S.-MBA (integrated) Programme

(b) B.Tech.-MBA (integrated) Programme

For the B.S.-MBA (integrated) and B.Tech.-MBA (integrated) Programmes, the students have to study the courses in the respective semesters as indicated in the course summary for the various B.S. and B.Tech. Programmes above.

In addition, from the Third Semester onward up to the Eighth Semester, students of the MBA-integrated B.S./B.Tech. Programmes have to take one Management course in each semester, simultaneously with the other courses of the B.S. / B.Tech. Programmes. For the Ninth Semester, they have to take three Compulsory courses of Management and two Specialization Groups, each consisting of two courses of Management. In the Tenth semester, they have to select two Specialization Groups, each consisting of three courses, corresponding to the groups selected in the Ninth Semester. In addition, students will be required to undergo two months' Summer Project in an organization in the Corporate Sector.

On completing the coursework and other requirements of the B.S./B.Tech. and MBA-integrated Programmes, the student will be eligible for the award of dual degrees, and will be awarded both a degree in B.S./B.Tech. and a degree in Management (MBA) separately.

Semester 3 (second year)			
Code	Course Title		
MG211	Social Engineering I		
Semester 4 (second year)			
Code	Course Title	MG-F522	Specialization Financial Engineering and Derivative Management
MG221	Social Engineering II (iv) HR Group	MG-F523	Business Taxation
		MG-F524	Management of Financial Services
Semester 5 (third year)			Semester 8 (fourth year)
Code	Course Title	Code	Course Title
MG311	Operations and Productions Management	MG421	Personal Management
Semester 6 (third year)			Semester 9 (fifth year)
Code	Course Title	MG-P522	Purchasing and Materials Management
MG321	Marketing Management	MG-P523	Advanced Operations Management
		MG-P524	Advanced Production Planning and Control
Semester 7 (4th year)		MG511	Business policy and strategic management
Code	Course Title	MG512	Entrepreneurship and venture development
MG411	Financial Management	MG513	Project management
Semester 8 (4th year)			Specialization
Code	Course Title	MG-F514	Banking and risk management
MG421	Personnel Management	MG-F515	Equity research, security analysis and portfolio management (iii) Marketip
		MG-M522	Sales and Channel Management
Semester 9 (5th year)		MG-M523	Marketing Services
Compulsory Courses		MG-M524	International Marketing and Foreign Trade
Code	Course Title	MG-HR522	Labour Legislation
MG511	Business Policy and Strategic Management	MG-HR523	Performance Appraisal, Training and Development
MG512	Entrepreneurship and venture development	MG-HR524	Compensation Management Group
MG513	Project management	MG-P514	Total quality management, ISO 9000 and KAIZN
		MG-P515	Agile and computer integrated manufacturing

M.Tech. Course Structure:

M.Tech. in Electronics and Communication Technology (4-semesters)

(AICTE Approved vide letter no F. No 06/07/Assam/Engg./2009/01 May 27, 2009.).

Semester	Course Code	Course	L	T	P	C
	EL 354	Digital Signal Processing	2	2	3	5
	EL 592	Linear Algebra and Random Process	2	2	0	4
	EL 593	Satellite Communication	2	2	3	5
	EL 594	VLSI Technology	2	2	3	5
	EL 477	Seminar & Term Paper	0	5	0	5
	Semester Total		8	13	9	24
	EL 366	Mobile Communication	2	3	0	5
	EL 367	DSP Processor	2	2	3	5
	EL 5103	Statistical Signal Processing	2	2	3	5
	EL 5104	Digital Image Processing	2	3	0	5
	EL 5105	VHDL & Digital Design	2	1	3	4
	Semester Total		10	11	9	24
	EL 6111	Elective	3	3	0	6
	EL 6112	Project Phase 1	0	15	9	18
	Semester Total	3	18	9	24	
	EL 6121	Project Phase II	0	18	18	24
	Semester Total		0	18	18	24

Electives:

- A. Communication Networks
- B. Advanced Processor Architecture
- C. Embedded Systems
- D. Bio Medical Signal Processing
- E. Robotics
- F. Speech Processing
- G. Optical Sensors
- H. Information Theory
- I. Soft Computing
- J. Neural Networks
- K. Advanced Photonics
- L. Advanced Antenna Design
- M. Bio-Electronics
- N. Data Security
- O. Computer Vision
- P. Bluetooth
- Q. Bio-Informatics
- R. Optical Communication

M. Tech. in Information Technology:

(Each course may include laboratory work if prescribed)

Total marks for each of the courses listed below will be 100 (end semester examination) except for the course IT-611 and IT-621 (Project Works) which will carry a total of 400 marks each.

The Evaluation Pattern for each course (except Project Works) is as follows:

1. Mid Semester examination : 30% (30-50 marks, 2 hour exam)
2. Assignments/Lab/Viva/Seminar etc. : 20%
3. End Semester Examination : 50% (100 marks, 3 hour exam)

Course No Course Title

Semester –I (Total Credits: Min. 21, Max. 23)

IT-511	Computer Systems (OS, COA, DBMS, Compiler, Computer Networks)
IT-512	Design and Analysis of Algorithms Elective 1 Elective 2
IT-513	Seminar Course

Semester –II (Total Credits: Min. 20, Max. 22)

IT-521	Web Technologies
IT-522	Information Theory & Coding Elective 3 Elective 4
IT-523	Seminar Course

Semester –III (Total Credits: 20)

IT-611	Project 1
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Semester –IV (Total Credits: 20)

IT-621	Project 2
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(TOTAL Credits: min. 81, max. 85)

List of Electives: (Credits: Min 4, Max 5 each)

Course CODE	Course Name	IT-551	Internet Protocols
IT-531	Advanced Database Management systems	IT-552	Knowledge based systems
IT-532	Advanced System Administration and Networking	IT-553	Linux Kernels
IT-533	Advanced Web Technologies	IT-554	Management Information Systems
IT-534	Agent Oriented Computing	IT-555	Mobile Computing
IT-535	Applied Graph Theory	IT-556	Natural Language Processing
IT-536	Artificial Intelligence and Intelligent Systems	IT-557	Object Oriented System Design
IT-537	Biologically Inspired Computing	IT-558	Parallel and Randomized algorithms
IT-538	Computer Architecture and Parallel processing	IT-559	Pattern Recognition
IT-539	Cryptography and Computer Security	IT-560	Real Time Systems
IT-540	Data Mining & Data Warehousing	IT-561	Software Project Management
IT-541	Decision Support Systems	IT-563	Software Testing and Quality Assurance
IT-542	Digital Image Processing	IT-564	Speech Processing
IT-543	Digital Signal Processing	IT-565	Wireless Communication and Networks
IT-544	Distributed Systems		
IT-545	Educational Technologies		
IT-546	E-learning Technologies		
IT-547	Electronic Commerce Technologies		
IT-548	Enterprise Resource Planning		
IT-549	Fuzzy Logic and Neural Networks		
IT-550	Geographical Information Systems		

Academic and Welfare Services

The K.K. Handiqui Library

Librarian: Wooma Sankar Dev Nath

Contact

0361-2570529 (O)

94350-42508 (M)

e-mail : kkhlgu@gmail.com; wooma59@yahoo.co.in

The Gauhati University Library started functioning since 1948. It was later renamed as K. K. Handiqui Library in the memory of the renowned scholar, orientalist and first Vice-Chancellor of the Gauhati University, the Late Prof. Krishna Kanta Handiqui in 1982. The library caters to the needs of about 8,000 readers consisting of teachers, officers, research scholars, M. Phil. students, P. G. students, employees including those from neighbouring States.

Its total collection of reading materials, which includes text books, reference books, general books, rare books, back volume of journals, manuscripts, reports, special collections, theses and dissertations amounts to more than 3,00,000 titles.

Library Timings

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

Facilities

As a participating university in the University Grants Commission's INFLIBNET programme, The K. K. Handiqui Library has been able to give its users access to nearly 6,500 e-journals on-line with full texts and some other journals with abstracts on the internet.

In addition, e-mailing and internet browsing facilities are also available for Post Graduate students, Researchers and Faculty members.

Housekeeping operations viz. cataloguing and circulation are automated. Other operations such as serial controls and acquisition are also in the pipe line. OPAC (Online Public Access Catalogue) is the heavily used database of the library holdings.

Other facilities available in the Library include photocopying and inter-library loan services. A special collection of textbooks – the Textbook Corner – was put together a few years ago in response to the students' urgent need for readily available texts in different subjects.

The Manuscripts Collection

The collection of about 5,000 manuscripts written on Sanchipat, Tulapat, palm leaf and paper is a pride of the K.K. Handiqui Library.

The collection includes manuscripts written in Early Assamese, Sanskrit (Kaitheli and Bamuniya scripts), Bengali, Nepali and Tai Burmese languages. The Library has been designated as a Manuscript Resource Centre and a Manuscript Conservation Centre by the National Mission for Manuscripts, Department of Culture, Government of India.

The K.K. Handiqui Collection

The personal collection of 7,593 belonging to Prof. Handiqui and generously donated to by him Gauhati University, is another precious and priceless possession of the Library. The collection includes books on eleven different languages like Greek, Latin, French, Italian, German, Russian, Spanish, Pali, Prakrit, Sanskrit and English.

Orientation Session for Students

The students of the First Semester classes admitted to the different Post Graduate classes of the University are given an orientation at the beginning of the academic session every year on the various facilities available at the Library so that they can make the best use of the resources it has to offer.

The specific dates and timings of the Orientation Sessions will be intimated to the Academic Departments shortly after the commencement of the First Semester classes.

The Pre-Examination Training Centre

Director in-charge

Prof. Pranab Jyoti Das

Deputy Director

Dr. Sanjay Dutta

Contact

2570729

2676791

2676804

2573887

The aim of this Centre is to provide training opportunities to students pursuing full-time Post Graduate studies at Gauhati University to face various types of competitive examinations conducted by the UPSC, UGC and other Government bodies. Specific examinations for which training is organized by the Centre includes the following:

The Civil Service Examination

Defence Service Examination

Recruitment Test for Probationary Officers in Nationalised Banks

Assistant Administrative Officers in LIC and GICI

The Training Centre conducts a one-year Regular Programme for the Civil Service Examinations, to which Students are admitted in September/October.

In addition, the Centre also conducts short-term intensive courses from time to time. UGC-sponsored Courses for the weaker sections of minority communities are also conducted by the Centre.

In view of the continuing demand for NET qualifications, the Centre holds classes to help students prepare for these examinations with the assistance of faculty members from the various Departments of the University.

The Directorate of Students' Welfare

Director: Mr. Radha Charan Rabha

Contact : 2570852

Location: Southwestern side of BKB Auditorium

The office of the Director of Student Welfare deals with the Organisation of sports and extra curricular activities, beside providing other facilities for the students.

The office provides facility for playing various games & sports e.g. Football, Volleyball, Cricket Badminton, Table Tennis, Hockey, Kabbadi, Basket Ball, Carrom etc. Some of the aims and objectives of the Office of the DSW are:

- To organize and manage Inter College and Inter University Festivals, sports and games
- To organize courses of training in Games, Sports and Festivals
- To award at its discretion Trophies, Mememtos, Cups, Certificates or any other award on the result of the different tournaments and competitions.
- To take necessary steps to encourage all sporting, athletic, physical, intellectual and cultural activities among students at the University and the affiliating colleges.

All sports goods are made available to the Hostels every year by this office. The Common rooms for Boys and Girls are also supplied with playing materials.

Identity Cards to all bonafide students of this University are issued by the Director of Students Welfare. Railway and Air concession forms to bonafide students are also issued by this office.

University Health Service

Chief Medical Officer : Dr. N.N. Talukdar

Contact: 2571137

The University maintains a residential Hospital at the University Campus with a view to rendering necessary medical assistance to the students, teachers, employees and their dependents. One Ambulance Van is also maintained to meet the emergency situation at G. U. Hospital.

Career Counseling 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. (Mondays, Wednesdays and Saturdays)

Location: Ground floor of building on the west of the Arts building

The thought of landing a job of one's own choice after completing the course of study is likely to go through the mind of the typical Post Graduate student. In this regard, the Centre offers suggestions on career options that are likely to be more in line with the students background, interest and aptitude.

It has been observed that students are often unaware of the means through which they might go about finding the relevant information. The Student Counsellor of the Centre, Mr. Deka, an experienced Career Counsellor, offers advice to interested students on both career openings as well as the how to collect more information on this by referring to sources that include both printed information as well as internet-based resources.

Students are also offered advice and tips on how to prepare a Curriculum Vitae (CV) for oneself and the nature of information that potential employers are likely to look for in such a document.

Placement Cell

Placement Officer: Dr. Kandarpa Kumar Sarma, Department of Electronics Science

Contact: 0361-2671262 (Department of Electronics, G.U.)

e-mail : *placementgu@gauhati.ac.in*

Webpage : <http://www.gauhati.ac.in/home/studentssupport/index.htm>

Aims of the Placement Cell

Since its establishment in November 2006, the Placement Cell has been guided by the following objectives:

- to provide placement services to all students inside the university campus
- to act as the nodal body to extend its services to other institutions and to the educated youth of the state
- to promote placement activities in the state and the Northeastern region as an institutional member of the North East Professional Institute Forum (NEPIF).



Gauhati University

Form No.

**Application form for admission into
B.S./B.Tech./B.Tech.-Lateral entry/ M. Tech. Programmes, 2012-13**

*Affix
Your signed
recent Passport
Size Photograph
here.*

Applying for the Programme: (Please tick the appropriate box with a '✓' mark)	B.S.	B.Tech	B.Tech (lateral)	M.Tech (ECT)		M.Tech (IT)	
				Full Time	Part Time	Full Time	Part Time

(Separate form to be submitted if applying for more than 1 Programme)

1.	(a) Name of the Applicant: Mr/Ms (BLOCK LETTERS)								
	(b) Father's Name								
	(c) Mother's Name								
	(d) Guardian's Name								
	(e) Guardian's Phone No.:	(1).....	(2).....						
	(f) Permanent Address.....								
	PIN.....							
	Telephone-1.....	Telephone-2.....							
	(g) Postal Address:								
	PIN.....							
	(h) E-mail.....	Telephone.....	(i) Sex.....	(Male/Female)					
	(j) Date of Birth.....	(k) Blood Group.....	(l) Nationality.....						
2.	Do you want to apply for a reserved category seat? If yes, please tick the relevant category with '✓' mark								
	SC	ST (H)	ST (P)	OBC	MOBC	Extra Curricular activity*	Ward of GU Employee*	Fringe Village*	Differently Abled*
	*For these categories, obtain separate prescribed Form from the office of the Secretary, University Classes and submit alongwith this Form								
3.	Are you a permanent resident of Assam? Yes or No (attach evidence)								
4.	Educational Qualification								
	Examination Passed	School/College Board/University			Subjects	Year	Division	Percentage of marks	
	10th								
	12th								
	Diploma (for lateral entry)								
	For M.Tech. applicants only :								
	Degree								
	Other								
	GATE Details (For M.Tech. Only)								
	Professional Experience Details (For M.Tech.-part time Only)								

5. CEE score (For B.Tech. applicants) :

Roll No.	Total Marks	Rank
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6. Please indicate in order of Preference, the Branch in which you would like to pursue the B.S/B.Tech. Course.

(a)..... (c).....

(b)..... (d).....

7. Are you applying for University Hostel Accommodation: Yes or No?

8. List of enclosures:

a..... d.....

b..... e.....

c..... f.....

Declaration by applicant

I hereby submit myself to the disciplinary jurisdiction of the authorities of Gauhati University. I shall neither indulge myself nor instigate any other student in ragging or create a nuisance to the academic atmosphere of the University. In case of any act of misconduct on my part or any disciplinary proceeding against me, the University has the freedom to inform my parents/guardians. 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.

I also declare that I shall submit the necessary Affidavits relating to anti-ragging within 30 days from the date of my admission in Gauhati University; Otherwise I shall be liable for penal and administrative action or be debarred from appearing in any University Examination.

Date.....

.....

Signature of the applicant

Guardians Financial Guarantee to be filled in by the parent/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, _____ for his/her study in the University during the course of his/her studies at Gauhati University. I also take full responsibility for regular payment of the Hall dues of my son/daughter/ward, if he/she avails a Hall seat applied for.

Date.....

.....

Signature of the applicant

For Official Use only

Name of the student:

Provisionally	Category		Main List Sl. No		Waiting List Sl. No	
selected under:						
Course			Subject		Roll No	

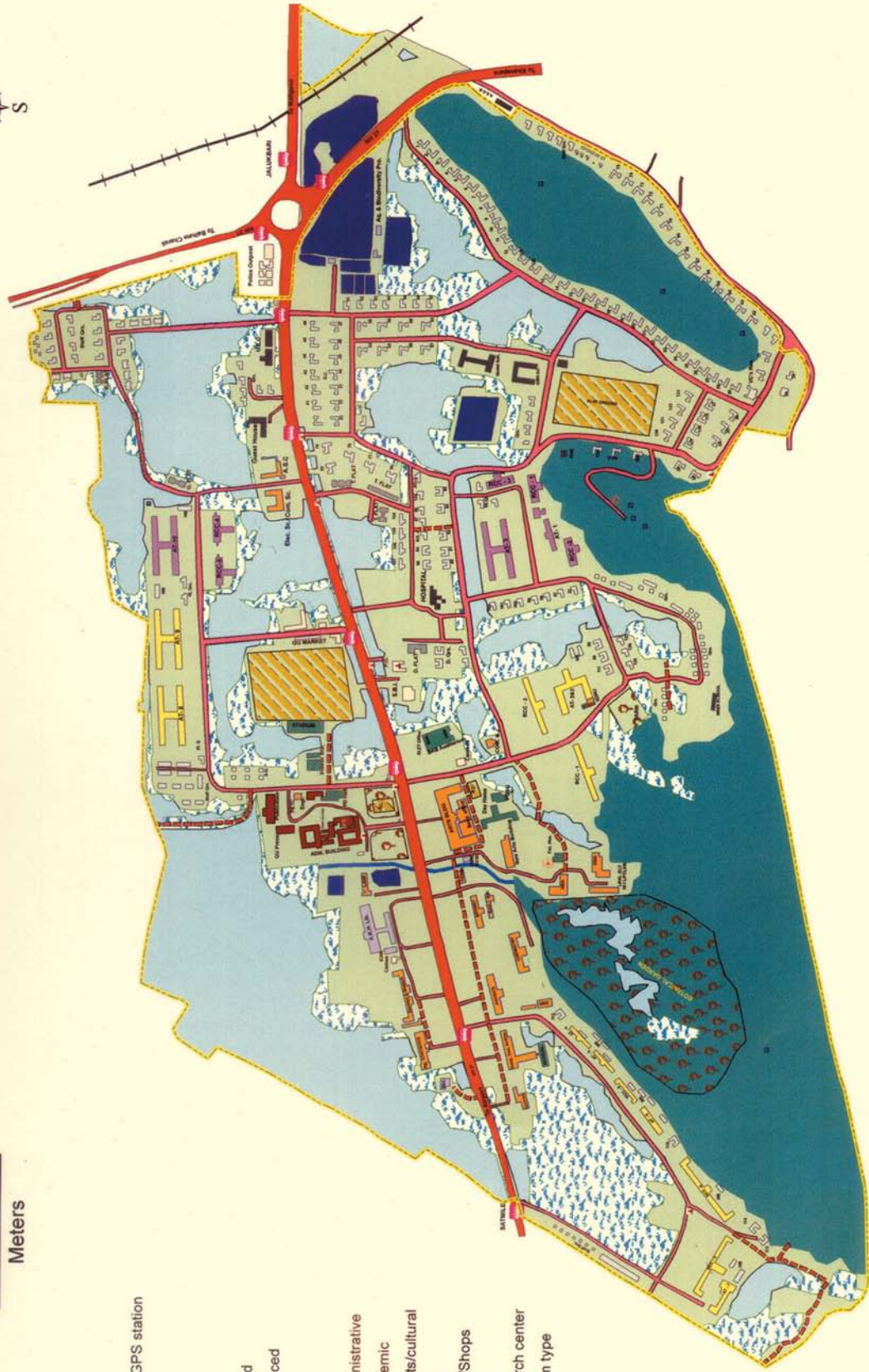
GAUHATI UNIVERSITY CAMPUS

02040 80 120 160

Meters



- Legend
- Boundary
 - Post box
 - Observatory_GPS station
 - Bus stop
 - Reservoir
 - Highway
 - Road_surfaced
 - Road_unsurfaced
 - Railway
 - Stream
 - Building_administrative
 - Building_academic
 - Building_sports/cultural
 - Other building
 - Bank/P.O./P.S./Shops
 - Play ground
 - Library/Research center
 - Quarter_assam type
 - Quarter_rcc
 - Girls' hostel
 - Boys' hostel
 - Grassland
 - Wetland
 - Garden/farm
 - Hill
 - Tank/Pond
 - Builtup area





₹300/-