PROSPECTUS 2015

TEZPUR UNIVERSITY

(A Central University)

www.tezu.ernet.in

Napaam, Tezpur, Assam 784028

SECTION ONE

TEZPUR UNIVERSITY

ABOUT THE UNIVERSITY

Tezpur University was established on 21st January in 1994 by an Act of Parliament of India, *The Tezpur University Act, 1993 (Act No. 45),* as a non-affiliating and residential Central University. The University is located at Napaam, about 15 Km. east of Tezpur town in the Sonitpur District of Assam. The sprawling, serene and green University Campus of about 262 acres provides the best of atmosphere including modern infrastructure conducive for learning and dedicated research. The academic programmes offered in the University have a distinct focus on Science, Technology and Humanities, reflecting the objective of the University. At present the University offers Doctor of Philosophy programme in 17 disciplines, Masters programme in 23 disciplines, Post-Graduate Diploma in 3 disciplines, B. Tech. in 6 disciplines, Certificate programme in 3 discipline, Integrated M. Sc. programme in 4 disciplines, Integrated B. A. B. Ed. Programme in 1 discipline, Integrated M. A. in 1 discipline, Integrated B. Sc. B. Ed. Programme in 3 disciplines, Integrated M. Com., Diploma and Advanced Diploma Programme in 1 discipline each. The University offers Add-on courses on Yoga too.

During the last twenty years of its existence, the University has engaged itself in the process of capacity building, both in terms of infrastructure and human resource development. The University has mounted tremendous efforts in developing it into a modern university incorporating all elements from the contemporary scientific and socio-cultural milieu.

The University has already developed a number of state-of-the-art laboratories, computing facilities, internet connectivity, a dedicated power supply system and a relatively small but rich library having connectivity to several digital libraries. While students' accommodation is provided in 12 well-designed hostels, several residential quarters have been built for accommodating teachers and non-teaching staff. Other basic amenities like central water supply, campus security, guest house, canteen, gymnasium, indoor & outdoor sports facilities with flood lights, post office, banks with ATMs, schools, etc. are also available to cater to the various needs of the university community.

Being a Central University, the University is privileged to receive funds from the Ministry of Human Resource Development, Government of India, through the University Grants Commission. Assistance has also been received from the Non-Lapsable Central Pool of Resources of the Government of India. Faculty members of different academic Departments have been able to earn a large number of research projects worth crores of rupees from different sources. The University promotes industry-academy alliance and the existence of a few prestigious industry sponsored projects in the University bear testimony to this.

FACILITIES AND SERVICES

The University offers the following facilities and services for the students and research scholars.

University Library:
The University offers a Central Library with a rapidly increasing collection of books, periodicals and journals. Central library holds 55423 books, 7884 back volumes, active subscription to 128 print journals and 18 online Databases. The UGC-Infonet Consortia of INFLIBNET Center is providing free access to about 10,000 e-journals and 11 online Databases. The DelCon DBT e-library Consortium has also provided access to 115 e-journals. The library holds 1834 CD/ VCDs. Library users can access book database, theses database, journal database, e-journals and other e-resources from any terminal within the University campus.

Computing Facilities:
The University started using computers from its very inception both in its academic and administrative activities. The University has elaborate computing facilities accessible to the students. There are two clusters of modern state-of-the-art Computer Centre situated appropriately within the campus for use by the students and research scholars in addition to the Departmental computer laboratories. Apart from a large number of PCs and several servers, all connected to the high speed campus LAN, the Centre also has a 4-processor SGI ALTIX-350 server. The campus LAN is connected to the Internet through 1-Gbps National Knowledge Network (NKN) optical fiber link. It also has a 2-Mbps leased line for Internet as a backup link. The campus is connected with wi-fi network too.

Hostel Accommodation:
The University has separate hostels for boys and girls adequate to accommodate all students and research scholars. In total there are 7 women's and 5 men's hostels comprising of more than 3300 capacity.

Scholarships:
A limited number of scholarships are offered to Tezpur University students by various Government/semi-Government organizations such as NEC, DBT, ITDP, MNRE, DTE, DST, UGC, ICSSR, AICTE, other State Governments, and ONGC etc. Tezpur University also offers an Institutional fellowship to PhD students having consistently good academic career. Free studentships are also provided to a limited number of meritorious students of PG/UG programmes belonging to economically weak families.

Health Services:
The University has a Health Centre to provide basic medical services with its own medical and paramedical staff. The Health Centre is manned by three full-time highly qualified physicians. Besides, specialist doctors like radiologist, gynecologist and psychologist regularly visit the University in a weekly basis. The students are also provided with the benefit of health insurance scheme up to a specific limit. The newly admitted students below the age of 35 will be covered under the insurance from August 2015.

Games and Sports:
The University provides opportunities for students to excel in various departments of sports. The University has basketball, volleyball and tennis courts, cricket and football grounds with playing facilities under flood light and a well-equipped multi gymnasium.

Tezpur University Alumni Association (TUAA):
TUAA was formed in the year 2000 to create a network of the alumni of the University. The Association aims to build an active network among the alumni of the University.

Academic Calendar:
The University strictly adheres to a well-planned academic calendar specifying the schedule of academic activities. All events including the examinations are held strictly according to this calendar. Prospective students are advised to go through the current calendar to get acquainted with the academic events of the University. The academic calendar for the year 2015 is available in the URL- http://www.tezu.ernet.in/academic/Academic_calendar_2015.pdf

CURRICULAM

Each academic programme is designed to provide enough flexibility in the choice of courses for the students. The courses across the Departments have been designed in such a way that multiple teaching pedagogies could be incorporated easily for delivering the syllabus. Besides the compulsory (core) courses for each of the programmes, the students also have the option to choose courses of their own interest from the elective courses. Students will be required to register some inter disciplinary courses as per their choice under the Choice Base Credit Transfer (CBCT) mechanism.

Instruction Methodology:
The medium of instruction / examination in the University at all levels is English. In framing the courses, care has been taken to see that they are NOT burdened with formal lectures only. There is adequate provision for seminars, tutorials, case studies, guided field work, etc., whatever necessary, to promote the habit of independent thinking.

To relate theoretical knowledge to the practical field, proper measures are taken to conduct case studies and guided field works. Group Discussion is an integral part of teaching pedagogy to help the students in increasing their analytical capability and creativity.

Evaluation system:
The students are evaluated following relative grading system which is basically internal. In order to make sure that the students do not have to rely on any one or two major examinations for evaluation the University follows a continuous and comprehensive evaluation system, where the tests and assignments are spread across the entire semester. A relative Letter Grade is awarded on the basis of continuous internal assessment through class tests, assignments, seminars, term tests etc.

A Letter Grade signifies the level of standard of qualitative/quantitative academic achievement, which a student attains in a particular course/ research work. Each of the Letter Grade represents a Grade Point as tabulated below. The letter grades A+ to D are considered as *Pass grades* and *F* is considered as *Fail* grade.

Letter Grade	Grade Point	Description
A+	10	Outstanding
A	9	Excellent
B+	8	Commendable
B	7	Very Good
C+	6	Good
C	5	Average
D	4	Marginal
F	0	Poor

In addition there are other grades as stated below:

Letter Grade	Status	Remarks/Context
I	Incomplete	Letter grade assigned in case any evaluation component remains to be completed due to an extraordinary situation (conforming to the relevant provision in the Regulations for Academic Matters) faced by the student. This grade must be converted to any of the regular grades above within the first month of beginning of the following semester by completing the remaining evaluation component(s).
W	Withdraw	Letter grade assigned if (i) a student withdraws from a course after the last date for withdrawal of course and (ii) deficient of required attendance.
X	Extended Project	Letter grade assigned in case a project work remains incomplete and the work is extended to the following semester.
S	Satisfactory	Letter grade assigned for successful completion of a Foundation/ Audit Course.
U	Unsatisfactory	Letter grade assigned for being unsuccessful in a Foundation/ Audit Course.

Course registration and attendance:
The student shall register for the course /project/ research work(s) for a particular semester by filling–in the registration card. A course adviser appointed by the Head of the Department (HoD) shall assist the student in the selection of the courses for the semester. The registration card duly signed by the student and countersigned by the course adviser and the HoD shall be submitted to the Controller of Examinations. One copy each of the form shall be made available to the Dean of Students' Welfare, Head of the Department, and the student concerned.

Abridged Academic Calendar 2015:

JANUARY 16	Admission to classes and hostels/course registration
APRIL 08-11	Major I
MAY 21-27	Spring semester end term examinations (Major II)
JULY 27	Counselling and course registration for new entrants
JULY 28	Commencement of classes for autumn semester
OCTOBER 14-17	Major I
DECEMBER 14-19	Autumn semester end term examinations (Major II)

NOTE: *Detailed academic calendar is available on the University website.*

TRAINING AND PLACEMENT

Helping and guiding the students in shaping their career as per their aspirations has become an integral part of higher education today. In order to exclusively take care of these aspects, the University has a *Training and Placement Cell* which acts as the interface between the recruiting organizations and the University students. It facilitates recruitment events on-campus as well as off-campus as required. It also organizes various pre-placement grooming programmes to enhance the employability of the targeted students in association with the Equal Opportunity Cell of the University. Currently, the Cell is headed by the Deputy Director (Training and Placement).

The students of the University have already created a niche in various leading MNCs, PSUs and government departments through their high professionalism and intellectual ability coupled with honesty and commitment – the qualities that are emphasized upon during the training sessions. While doing so, they are also made aware of the corporate social responsibilities that serve catalyst to holistic growth.

The organizations that have recruited from the University in the recent past include:

List of Past Recruiters:

Private Sector Organizations	
Aircel	Jungle Travels India
Accenture	Jenson and Nicholson
AGC Networks	Mahindra Finance
Airtel (Bharti Telecom)	LG Soft
American Embassy, New Delhi	Look East Chennel
Aricent	Nagaland Fruit and Veg. Prod. Unit
Asia Carbon Limited	NDTV
Asian Paints	Nestle India Ltd.
Axis Bank	NE Chronicle
AzimPremji Foundation	NE TV
Broadcom	Newslive
Calcom Cement	Nokia
Channelply	OCWEN
Channel Look-East	Oracle
Chembioteek Life Science	Perkin Elmer (India) Pvt Ltd
CG foods	Philips
Cipla Ltd.	PRADAN
CNN-IBN	Press Trust of India,
Colgate-Palmolive	Q-Tech Nano Systems
Dabur India	Reliance
Delphi	Reverie Language Technologies
Diamond Fabcare, New Delhi	RIMS
Disha, New Delhi	Samsung
DSCL	SBI Life
Dymanics Orbit	Shalimar Paints
Dyna Roof	Shriram Transport Finance Company Ltd
ETV-Ramoji Film City, Hyderabad	SiemensTechnology,
Genpact	Software AG

Private Sector Organizations	
GE Health Care	Sony India
GLAXO-Smithkline	SRD Nutrients, Mangaldoi,
Godrej and Boyce Manuf. Co. Ltd.	Star Cement
Hindustan Coca-cola Ltd	Sunrise Biscuits (Britannia)
Hindustan Lever Ltd.	Symphony
Housing Dev. Finance Co. (HDFC)	Syntel
Huawei Technologies	Tata Consultancy Service
IBM	TATA-ELEXI
ICI Paints	TCI
ICICI Bank	Tech Mahindra
Indian Express	Vodafone
Infosys	Unisys Global Services
ITC Ltd	Wipro
Jindal Steel & Power Ltd	Yes Bank
Public Sector Units	
Allahabad Bank	Indian Oil Corporation Ltd. (IOCL)
Bank of Maharastra	Industrial Development Bank of India
Bharat Sansar Nigam Ltd.(BSNL)	Intelligence Bureau
Bongaigaon Refineries and Petrochemicals	ISRO
Brahmaputra Cracker and Polymer Ltd.	NRHM, Govt. of Assam
Centre for Sc. and Env., Delhi	National Thermal Power Corporation
DRDO	Numaligarh Refinery Limited (NRL)
Export-Import Bank of India	Oil India Limited (OIL)
Food Corporation of India	ONGC
Food Safety and Standards Authority	Powergrid Corporation of India
Gas Authority of India Limited (GAIL)	Reserve Bank of India
ICAR	State Bank of India
Indian Army	United Bank of India
Institutions of Higher Learning	
Assam Don Bosco University	Indian Academy of Science, Bangalore,
Assam Engineering College, Guwahati	Institute of Genomics and Integrative Biology
Assam University, Silchar	J. B College, Jorhat
Banaras Hindu University	JNU, New Delhi
Jadavpur University,	Jorhat Engineering College
Bareilly Engineering College	Konkuk University, Korea
Bielefeld University, Germany	M.S University of Baroda,
Central Institute of Post-Harvest Engg. and Tech.	National Institute of Cholera and Enteric Diseases
Dibrugarh Polytechnic	National Centre for Genome Research
Dibrugarh University	NCL, Pune,
Edinburgh University England,	NIT, Silchar
Epitome College, Diphu	North Eastern Hill University, Shillong
Galgotia Institute of Technology, Noida,	Royal Group of Institutions
Gauhati University	Sikkim Manipal Institute of Technology
Girijananda Choudhury Institute of M&T	Silchar Polytechnic
Hyderabad University,	Sognag University, Korea
IISC, Bangalore,	Sona College of Technology, Salem
IIT, Delhi,	St. Anthony's College, Shillong
IIT Guwahati	University College of Cork, Ireland
IIT Kharagpur	Rajiv Gandhi University
IMPRS, Halle, Germany	University of Pune

STUDENTS' CODE OF CONDUCT

Students are to follow discipline as prescribed in the regulations on Maintenance of Discipline of the University. Violation of any clause by any student may lead to disciplinary action as per the regulations.

Tezpur University is *Ragging Free University.* Ragging in any form is strictly prohibited inside or outside the University. Students found indulging in ragging shall be subjected to punishment as per rule. Candidates are advised to visit the website: www.ugc.ac.in or www.tezu.ernet.in for UGC Regulations on curbing the menace of ragging in Higher Educational institutions, 2009.

IMPORTTANT ACADEMIC RULES

Course registration:
The courses opted by the students in a particular semester are to be registered on some specific date(s). For newly admitted students, registration of courses will be done on July 27, 2015.

Attendance requirement:
All students must attend every lecture, tutorial and practical classes, of the course registered by him/her. However, to account for late registration, sickness or such other contingencies, the attendance requirement will be a minimum 90% of the classes. Students with deficiency in attendance in a course will be awarded W (withdrawn) grade in the course.

Renewal of admission:
Every student will renew his/her admission in the successive semesters on the notified dates. No student is allowed to get himself/herself admitted after the scheduled date.

Requirement for award of degree/diploma:
A student shall be required to satisfy the following conditions for award of degree/diploma

a) Obtain a pass grade in each of the courses.
b) Earn the minimum credit required for award of degree/diploma within the prescribed maximum duration of the programme (maximum credit load allowed per semester is 25).
c) Secure a minimum CGPA of 4.5.

The **provisionally admitted students** shall have to discontinue their studies if they fail to submit the required documents such as pass certificate, mark sheet, etc within the specified period.

ADMISSION PROCEDURE

Interested eligible candidates may APPLY ONLINE through the University Website by paying a fee of Rs. 250/- for SC , ST & PWD candidates and Rs. 500/- for other categories of candidates. Additional bank charge may apply.

The candidates are required to fill-in the application form online in the University website www.tezu.ernet.in. Candidates should read and follow the instructions (that are available on the website) carefully while filling in the relevant columns of the online application form. Payment is to be made online using either credit card, or debit card, or net-banking. The transaction detail is to be printed and preserved for later reference.

Important Points:

1. Candidates applying for more than one programme must apply separately for each programme. However, for the Integrated M.Sc. and Integrated B.Sc.B.Ed. programmes of the same Department, candidate needs to apply in a single application form. Similarly for Integrated M.A. (English) and Integrated B.A.B.Ed. (English major in B.A.), candidate needs to apply in a single application form. Even though there shall be one combined entrance examination for Integrated M.Sc. /M.A. and Integrated BSc.B.Ed./B.A.B.Ed.for a Department, there shall be two different merit lists. Such integrated course candidates must mention their choices clearly in item no.2 (a) and 2 (b) of the application form.
2. For all B. Tech. programmes, a candidate needs to apply in a single application form only.
3. Candidates who have already finished their qualifying examination, and those who are expected to complete all components of the examination including practical, and viva (if any) before the date of admission may also apply *(Please read the paragraph on "provisional admission" given hereafter for detail)*.

4. Last date of online form submission:

(i) For B.Tech. Programmes: May 7, 2015.
(ii) For all other programmes: April 8, 2015.
The online form submission portal will close at 12 midnight of the mentioned dates.

5. For B.Tech Applicants : B.Tech applicants should use the following codes for indicating their preferences in the application form.

Code	Programme
CE	Civil Engineering
CSE	Computer Science & Engineering
EE	Electrical Engineering
ECE	Electronics & Communication Engineering
FET	Food Engineering & Technology
ME	Mechanical Engineering

Branch allotment will be as per merit based on the JEE (Main) examinations

6. **Admit Cards (Not required for B. Tech. & PhD. applicants) :** Information regarding download of online admit card will be intimated to the candidates after form submission.
7. **Entrance Examination Centres (other than for B. Tech. & Ph.D.):** To be filled in by the candidate in the application form.
8. Candidates should select the centre very carefully. It is to be noted that change of centre at a later date is not allowed.
9. Admission test for shortlisted Ph.D. candidate shall be held in concerned Department.

10. Documents:
The selected candidates will have to produce all relevant documents in original at the time of admission. They will have to submit a set of attested copies of all mark sheets and certificates at the time of admission.

The following documents are mandatory for the mentioned programmes:

A. For B. Tech. programme:
i) A copy of **JEE(Main)-2015** admit card
ii) Permanent Residence Certificate (PRC) in case applying for Northeast Quota.

B. For other programmes:
i) Attested copies of certificates (*and other documents, if relevant*) if applying under reserved category *(SC/ST/ OBC-NCL/Person With Disability/Kashmiri Migrant categories)*
ii) Attested Copies of certificates supporting educational and other qualifications (including GATE, NET etc.) Sponsorship/No Objection Certificate, if relevant.

C. For M.Sc. in Molecular Biology and Biotechnology programme:
i) Permanent Residence Certificate (PRC) in case applying for Northeast Quota.

- **Candidates applying for B. Tech. and M. Sc. in MBBT in the Northeast Quota must upload the scan copy of the Permanent Resident Certificate.**
- **Candidates applying for M. Tech. through GATE must upload GATE score card.**
- **Selected candidates must submit a printout of the filled-in form during the time of admission.**

Centre	Code	Address
Agartala	101	Tripura University, Agartala, Tripura
Bangalore	102	Indian Institute of Science, Bangalore – 560012
Barpeta Road	103	B. H. College, Howly, Barpeta, Assam, Pin-781316
Bhubaneswar	104	B.J.B. College (Autonomous), Bhubaneswar, Orissa
Chennai	105	Presidency College, Chennai-600005, Tamilnadu
Delhi	106	Gargi College, University of Delhi, Siri Fort Road, Delhi-110049
Dibrugarh	107	Dibrugarh University, Dibrugarh
Diphu	108	Diphu Govt. College, Diphu-782 460
Guwahati	109	NERIM, Jayanagar, Guwahati-781006
Hyderabad	110	Nizam College, Opposite L.B. stadium, Basheer Bag, Hyderabad, Andhra Pradesh
Imphal	111	Manipur University, Imphal, Manipur
Itanagar	112	North Eastern Regional Institute of Science and Technology (NERIST), Nirjuli, Itanagar
Jorhat	113	Institute of Science and Technology, Chenaijan, Satai, Jorhat, Assam
Kokrajhar	114	Kokrajhar College, Kokrajhar, Assam
Kolkata	115	Giribala Sirkar Balika Vidyalay, 70B and C Shyampukur Street Kolkata-700004, West Bengal
Lucknow	116	University of Lucknow, Lucknow, U.P.
Mumbai	117	KPB Hinduja College of Commerce, Mumbai
North Lakhimpur	118	North Lakhimpur College, Khelmati, North Lakhimpur, Assam
Patna	119	Central University of Bihar, BIT Campus, P.O. B.V. College, Patna-800014
Shillong	120	Shillong College, Laitumkhrah, Shillong, Meghalaya
Silchar	121	G.C. College, College Road, Silchar
Siliguri	122	North Bengal University, Raja Rammohanpur, Darjeeling, West Bengal
Tezpur	123	Tezpur University, Napaam, Tezpur, Assam

* *In case the venue is changed due to unavoidable circumstances the same will be notified in the University website well in advance.*

Selection of eligible candidates:

(a) B. Tech. Programmes

(i) Candidates seeking admission to the B. Tech. Programmes are required to appear in the **JEE (Main)-2015** to be conducted by CBSE, New Delhi. All Admission shall be based on **JEE (Main)-2015** All India Ranking.

(ii) 60% of available B. Tech. seats are reserved for the permanent residents of NE States. Candidates who fill-up Tezpur University application form shall be considered for the reserved seats. The applicants desiring a seat under NE quota must upload a PRC (Permanent Residence Certificate issued by the competent authority of any of the North Eastern states) along with the form. However, these applicants shall also be eligible to get admitted to the open seats through central counselling procedure.

(iii) Admission to the remaining 40% open seats shall be made through the central counselling i.e. Central Seat Allocation Board (CCAB) based on **JEE (Main)-2015**

(b) All other Programmes

The applicants for all other programmes (except for MBA) shall have to take an Admission Test conducted by TUEE-2015. The relevant syllabi for the test are made available at the end of this section.

(i) M. Tech. Programmes:

For M. Tech. Programmes, candidates may apply for more than one programme separately. Candidates of M. Tech programmes may seek admission either based on a valid GATE score or based on performance at TUEE-2015. For claiming admission based on GATE, the candidate must upload a valid GATE score card along with the application form. All applicants to M. Tech. courses, if eligible otherwise, may appear at the TUEE-2015, and may seek admission based on performance at TUEE. For some M. Tech programmes candidates may be required to appear for personal interview, which should be referred from department specific admission criteria.

(ii) Integrated M.Sc. and Integrated B.Sc.B.Ed.:

Candidates applying for Integrated M.Sc. and Integrated B.Sc.B.Ed. programmes will be selected for admission according to his/her performance in the TUEE-2015. There shall be combined test for both Integrated M.Sc. and Integrated B.Sc.B.Ed. in the same subject. For example, the test for Integrated M.Sc.in Chemistry and B.Sc.B.Ed. (Chemistry major in B.Sc.) shall be identical. However, two different merit lists shall be prepared based on the choices made by the candidates.

(iii) Integrated M.A. (English) and Integrated B.A.B.Ed. (English major in B.A.):

There will be combined entrance examination for both the programmes and qualified candidates will be selected for admission according to his/her performance in the examination. However, two different merit lists shall be prepared based on the choices made by the candidates.

(iv) P.G. Programmes (*other than MBA*):

Candidates seeking admission to any of the PG programmes (other than MBA) shall have to appear in the TUEE-2015 as per the schedule given in **Annexure II**. Selection will be based on the performance in TUEE-2015. Mathematics at 10+2 level is compulsory for candidates applying for programmes of MCA. For some programmes candidates selected through TUEE-2015 shall be required to appear for Group Discussion and Personal Interview.

The results of entrance examinations are likely to be declared in the fourth week of June 2015.

Seats are reserved for SC/ST/OBC (NCL) and Persons with Disabilities (PWD)/ Supernumerary Seat for Jammu and Kashmir candidates as per central government rules. **Please note that PWD candidates with at least 40% permanent disabilities will only be considered**.

The list of selected candidates for admission, including a waiting list, will be notified in the University Notice Board and the University Website.

No separate call letter will be sent to the candidates selected/waitlisted for admission. No TA/DA will be paid to the candidates for appearing in the entrance examination and/or interview.

Admission:

The Schedule of Admission is given in Annexure III. Selected candidates will be admitted to the concerned programme on payment of requisite fees. The candidate's presence at the time of verification of testimonials etc., course registration and hostel admission is essential.

In case of a gap of one year or more between completion of qualifying examination and the year of admission, the candidate must produce a 'Gap certificate' from the District Police Authority or an affidavit specifying his/ her occupation during the gap period.

Provisional Admission:

Candidates who have appeared/are appearing in the qualifying examination before the date of admission and whose results are being awaited may be admitted provisionally if otherwise found eligible at the entrance examination and/ or interview, provided that

1. *They have passed all the earlier examinations held for the same degree without any carryover of subject(s) (back, arrear etc.) satisfying the eligibility criteria;*

2. *All academic works including theory and practical of qualifying examinations are completed before the admission.*
3. *They must produce the evidence of passing the qualifying examination with requisite qualification on or before 15 November, 2015 failing which they will be debarred from appearing the semester end examination.*
4. *Candidates must submit a proof of taking all the examinations at the time of admission duly certified by the Principal/ Head of the Institution last attended.*

Application for Hostel Accommodation

Candidates requiring hostel accommodation need to indicate in the application Form.

Commencement of Classes:
Classes for all the programmes will commence on 28 July, 2015 as mentioned in the Academic Calendar. Students admitted to any of the programmes must report to the Head of the Department concerned within a week from the date of commencement of classes, failing which his/her seat may be forfeited.

Refund of Caution Deposit:
Refund of caution money shall be made to a student after his/her release from the University. The claim for refund of caution money shall not be entertained beyond a period of one year from the date of release of the student. The caution money shall not be refunded if a student leaves the programme without permission and/or does not join and attend any class after admission. Refund of caution money shall be made against application in prescribed form and production of Release Order.

The fees deposited by the candidate shall not be refunded if the seat is withdrawn after the last day of admission (please refer to the admission schedule attached to this document for determining the last day of admission).

Self-Supported Scheme (SSS):
Eligible candidates under SSS will be admitted on payment of additional amount. Candidates in the waiting list only will be considered for admission under SSS. Tentative number of seats in each programme is available in section 3 of this prospectus.

COURSE OUTLINES FOR THE ENTRANCE EXAMINATIONS

(I) P.G. Degree/Diploma/Certificate Programme

Candidates are to sit for Tezpur University Entrance Examinations (TUEE), 2015 to be held during May 29, 30 and 31, 2015. Entrance Examinations for all programmes will be of two hours duration and will carry 100 marks.

M.Sc. in Chemical Sciences: The questions are on the basis of B.Sc. (Chemistry Major) syllabus along with 10+2 standard Mathematics, Physics, Biology and General Aptitude. The test comprises of all objective type questions. The distribution of marks is as per the following - General Science (10), Physical Chemistry (30), Organic Chemistry (30) and Inorganic Chemistry (30).

M.Sc. in Molecular Biology and Biotechnology: The entrance examination is held for 10 seats (out of 30 seats) reserved for the domicile of North East India. The Question booklet will consist of 50 questions of two marks each. For each wrong answer 0.5 marks will be deducted. The booklet will have questions on higher secondary level Chemistry, Physics and Mathematics and graduate level Life Science subjects.

M.A./M.Sc. in Mathematics: Questions will be of objective of Graduate level Mathematics. Each question carries 2 marks. 0.5 marks will be deducted for each wrong answer.

M.Sc. in Physics: Upto B.Sc. Physics (Honours) syllabus. The paper is of objective type.

M.Sc. in Nano Science and Technology: Upto B.Sc. honours in Physics/Chemistry/Biology syllabus. The paper is of objective type.

M.Sc. in Environmental Science: The test paper shall have multiple choice type questions of 10+2 and under graduate level science.

M.A. in Cultural Studies: The written test includes questions (descriptive as well as objective type) covering (a) General Information on North East India, particularly Assam, (b) Elementary Knowledge about the artistic and cultural heritage of India with particular reference to the North East India. The candidates may have to face an interview.

M.A. in English: The entrance examination assesses whether the candidate has the level of knowledge and skills expected of a student who has graduated/is going to graduate with major/honours in English.

M.A. in Education: The entrance examination assesses whether the candidate has the level of knowledge and skills expected of a student who has graduated / is going to graduate with major / honours in Education / Bachelor in Education (B.Ed.). There will be two groups of 50 marks each. The first group will consist of multiple choice questions and the second group will have descriptive type questions.

M.A. in Linguistics and Endangered Languages: The entrance examination tests whether the candidate has the basic information and ideas about language of the world and how language as a phenomenon works. There will be two parts in the question paper. Section A and Section B. Section A will contain 25 multiple choice questions of 2 marks each while Section B will contain descriptive questions of a total of 50 marks.

M.A. in Hindi: The entrance examination for M.A. in Hindi assesses whether the candidate has the level of knowledge and skills expected of a student who has graduated or is going to graduate with major/ honours in Hindi. There will be 100 marks for the test. The written test shall include multiple choice objective type questions of 50 marks. Descriptive type questions shall consist of the remaining fifty marks.

M.A. in Linguistics and Language Technology: The entrance examination tests whether the candidate has the basic information and ideas about languages of the world and how language as a phenomenon works.

M.A. in Mass Communication and Journalism: The written test shall comprise of both objective and subjective questions. The objective questions consist of current affairs, general knowledge, English language, general awareness on Northeast India and the basics of mass media. The subjective section is to test the candidate's writing skills, creative and analytical capabilities. The final selection will be based on written test, group discussion and personal interview.

M.A. in Social Work: There shall be 100 marks in two groups of 50 marks each. The first group will consist of multiple choice questions and the second group will have short descriptive type questions. Questions will be on general awareness, current affairs, knowledge about civil society initiatives, social justice, various social issues and challenges. The final selection will be based on written test, group discussion and personal interview.

M.A. in Sociology: The written test includes questions (objective as well as subjective type) on (i) general awareness and (ii) understanding of various socio-economic issues.

MCA: The written test consists of three parts: (i) Logical Reasoning and Basic Mathematical Ability, (ii) Mathematics (10+2 level) or fundamentals of Computer Science and (iii) English composition.

M. Tech. in Information Technology: The written test will be based on Programming in C, Computer Organization, Data Structures, Operating Systems, System Software, Computer Network, DBMS and Theory of Computation. The candidates may have to face an interview.

M. Tech. in Electronics Design and Technology: B.E. or equivalent level courses on Electronics and Communication Engineering, Electrical Engineering, AMIE in Electronics, M.Sc. in Physics with Electronics as special paper, M.Sc. in Electronics Sciences.

M. Tech. in Bioelectronics: B.E/B.Tech. level courses in Electronics Engineering, Electrical Engineering, Instrumentation Engineering, Communication Engineering, Biomedical Engineering, Chemical Engineering, Bioengineering, Computer Science & Engineering, Biotechnology, MBBS level, M.Sc. level courses on Chemistry, Biophysics, Molecular Biology, Cell Biology, Molecular Biology & Biotechnology, Polymer Science and Electronics.

M. Tech. in Food Engineering and Technology: The test paper shall contain 100 objective type questions covering the subjects of mathematics (20%), General Engineering (30%) and Food Engineering and Technology (50%). Selection will be based on Total Marks secured in TUEE.
However, if the candidate claims admission based on a valid GATE score, following criteria will be used:
i)For GATE holder with food technology as one of the optional subjects: GATE Score (70% weightage) + Personal Interview (30% weightage).

ii) For GATE holder without food technology as one of the optional subject: GATE Score (70% weightage) + TUEE marks (30% weightage)

M. Tech. in Energy Technology: The final selection is based on written test. The test paper will include multiple choice questions covering (i) energy sources and energy conservation, (ii) mathematics, (iii) physics and (iv) chemistry (Graduate level courses in Science and Engineering).

M. Tech. in Polymer Science and Technology: The test paper shall have questions based on chemical science related subjects (Chemistry/ Polymer Science/Applied Chemistry) at Master's degree level and allied subjects (Polymer Sci. & Tech./Fiber Sci. & Tech./ Rubber Tech. / Plastic Tech./ Chemical Engineering) at professional (B.Tech./B.E.) degree level. Candidates with valid GATE score will get preference.

M. Tech. in Mechanical Engineering (Specialization: Applied Mechanics): The written test will be on basic mechanical engineering with special emphasis on Solid Mechanics and Fluid Mechanics. There may be a personal interview also if the number of candidates is large.

Certificate in Chinese: The entrance examination will assess the candidate's knowledge of English grammar and usage, ability to write coherent paragraphs in English and general information about China

P.G. Diploma in Mobile and Multimedia Communication: The written test shall comprise of both objective and subjective type questions. The objective questions will consist of tests on English Language, General Knowledge, Computer Knowledge, Current Affairs, Culture and Traditions of North East India. The subjective questions are to test the candidates' sensitivity towards social issues and writing skills. The final selection will be based on the written test and personal interview.

P.G. Diploma in Tourism Management: The written test of objective type will consist of General Knowledge, Test of Reasoning and Test of English. Short listed candidates (based on the written test) may have to appear for a personal interview. Information regarding Personal Interview will be given in the website along with declaration of shortlisted candidates.

P.G. Diploma in Translation (Hindi): The written test shall have both objective and descriptive type of questions based on degree level syllabus of Hindi major, electives, praveen and sahityaratna.

P.G. Diploma in Women's Studies: The written test shall comprise of both objective and subjective type questions. Questions will be from areas like Gender and Sex, Women and Education, Women's Movement, Women and Media, Women and Health.

(II) Integrated M.Sc. and B.Sc. B.Ed Programmes

Integrated M.Sc. in Bioscience and Bioinformatics: Test comprising of 50 objective type questions in two sections. The first section shall contain 35 questions in Biology and the second section shall contain 15 questions from Chemistry, Mathematics, Physics and General. Each question carries two marks and 0.5 marks will be deducted for each wrong answer.

Integrated M.Sc. and B.Sc. B.Ed in Chemistry: Test comprising of 50 objective type questions in two sections. The first section shall contain 35 questions in Chemistry and the second section shall contain 15 questions from Biology, Mathematics, Physics and General. Each question carries two marks and 0.5 marks will be deducted for each wrong answer.

Integrated M.Sc. and B.Sc. B.Ed in Mathematics: Test comprising of 50 objective type questions in two sections. The first section shall contain 35 questions in Mathematics and the second section shall contain 15 questions from Chemistry, Biology, Physics and General. Each question carries two marks and 0.5 marks will be deducted for each wrong answer.

Integrated M.Sc. and B.Sc. B.Ed in Physics: Test comprising of 50 objective type questions in two sections. The first section shall contain 35 questions in Physics and the second section shall contain 15 questions from Chemistry, Mathematics, Biology and General. Each question carries two marks and 0.5 marks will be deducted for each wrong answer.

(III) Integrated M.A. in English and Integrated B.A. B.Ed. in English: The entrance test has two components. The first aims to test the candidate's general knowledge and the second their ability to write grammatically correct and acceptable English

(IV) Integrated M.Com: The test paper shall consist of 100 multiple choice having six sections viz. General Knowledge (15 questions), knowledge about business/ socio-economic environment (15 questions), test of Reasoning (15 questions), test of English (20 questions), data interpretation (15 questions) and test of arithmetic/mathematics (20 questions). There will 0.25 negative marks for each incorrect answer.

(V) B. Voc. in Renewable Energy and Food Processing Programme : Entrance examination will cover Mathematics (20%), Physics (20%), Chemistry (20%), Biology (20%) and General Awareness including English (20%). The test paper will comprise of 50 objective type questions carrying 02 marks each. There will be 0.5 negative marks for each wrong answer. There will be a cutoff mark for selection.

(VI) Ph.D. Programme: Candidates are selected based on the performance in the written test followed by personal interview. The syllabus for the examination will be as per respective P.G./U.G. courses. Please check Departmental websites or contact the Department for detail.

Model Questions for the Admission Test:
The model questions are provided along with the prospectus in a separate booklet. Also check the University website for further updates.

OMR Evaluation Sheet :
Candidates shall have to use an OMR sheet for marking the answers to the objective multiple answer-type questions.

While filling up the OMR sheet only black or blue ballpoint pens are to be used.

The candidates shall have to write and mark the Roll Number, Programme Code and Centre Code on the OMR sheet at the beginning of the examinations. **Failure to mark these components correctly will lead to rejection of the OMR sheet, which shall not be evaluated**.

A sample ORM sheet for a hypothetical student 2061080026 for MCA programme in Diphu centre along with detail instructions for use of the OMR sheet is enclosed in Annexure XI. Please follow the instructions meticulously.

Candidates are advised to be very careful in filling up the OMR sheet as correction/overwriting are not allowed. Please note that separate/alternative blank OMR sheet shall NOT be supplied to a candidate.

SECTION TWO

B.TECH. PROGRAMME

B.TECH. PROGRAMME

Admission to the following B. Tech. programmes shall be made through the All India JEE 2015.

Programme B. Tech. *in*	Department
Civil Engineering	*Civil Engineering*
Computer Science and Engineering	*Computer Science and Engineering*
Electrical Engineering	*Electronics and Communication Engineering*
Electronics and Communication Engineering	*Electronics and Communication Engineering*
Food Engineering and Technology	*Food Engineering and Technology*
Mechanical Engineering	*Mechanical Engineering*

Curriculum Structure

Duration: Minimum : 08 Semesters
Maximum : 12 Semesters

Credit Requirements: Minimum Total : 176

Semester-wise distribution of courses for B. Tech. Programme
First Year (Common to all disciplines)

First Semester		
Course Code.	**Course Title**	**Cr.**
MS 101	Mathematics - I	4
PH 101	Physics - I	4
CH 101	Chemistry	4
EL 101	Basic Electrical Engineering	4
ME 103	Workshop Practice	2
ME 101	Engineering Graphics	3
Humanities Elective		
EG101/ SO101/ BM 101	Communicative English/ Sociology/ Elementary Economics	3
Total		**24**

Second Semester		
Course Code.	**Course Title**	**Cr.**
MS 103	Mathematics - II	4
PH 102	Physics - II	4
ME 102	Engineering Mechanics	4
EL 102	Basic Electronics	5
CO 101	Introductory Computing	3
CO 102	Computing Laboratory	2
Science Elective		
ES 101	Environmental Science	3
Total		**25**

SECOND TO FOURTH YEAR

CIVIL ENGINEERING

Third Semester		
Course Code	**Course Title**	**Cr.**
MS 201	Mathematics -III	3
CE 201	Fluid Mechanics	3
CE 202	Surveying	4
CE 203	Building Materials and Technology	3
CE 204	Engineering Geology	3
CE 205	Surveying Practical	2
CE 213	Concrete and Structural Laboratory	2
CE 214	Solid Mechanics	4
Total		**24**

Fourth Semester		
Course Code	**Course Title**	**Cr.**
MS 203	Numerical Analysis	3
CE 206	Civil Engineering Drawing	2
CE 207	Hydraulics and Hydraulic Structures	4
CE 208	Structural Analysis -I	4
CE 209	Geotechnical Engineering -I	4
CE 210	Transportation Engineering -I	3
CE 211	Hydraulics Laboratory	2
CE 212	Geotechnical Engineering Laboratory	2
Total		**24**

Fifth Semester		
Course Code	**Course Title**	**Cr.**
BM 321	Fundamentals of Management	3
CE 301	Structural Design -I	4
CE 302	Water Resources Engineering	3
CE 303	Structural Analysis -II	4
CE 304	Geotechnical Engineering -II	3
CE 305	Environmental Engineering -I	3
CE 306	Environmental Engineering Laboratory	2
CE311	Transportation Engineering Laboratory	1
Total		**23**

Sixth Semester		
Course Code	**Course Title**	**Cr.**
BM 322	Social Responsibility and Professional Ethics in Engineering	3
CE 307	Structural Design -II	4
CE 308	Environmental Engineering -II	3
CE 312	Construction Technology	3
	CE Elective -I	3
	Open Elective -I*	3
Total		**19**

Seventh Semester		
Course Code	**Course Title**	**Cr.**
CE401	Transportation Engineering -II	3
CE402	Construction Management	3
	Open Elective -II	3
	CE Elective -II	3
	CE Elective -III	3
CE471	Industrial Summer Training**	2
CE481	Project-I	6
Total		**23**

Eighth Semester		
Course Code	**Course Title**	**Cr.**
	Open Elective -III	3
	CE Elective -IV	3
CE482	Project -II	12
Total		**18**

Elective Courses

Course Code	Course Title	Cr.
CE 421	Advanced Reinforced Concrete Design	3
CE 422	Dynamics of Structures	3
CE 423	Pre-stressed Concrete and Industrial Structures	3
CE 424	Bridge Engineering	3
CE 425	Soil Dynamics and Foundation Engineering	3
CE 426	Ground Improvement Methods	3
CE 427	Earth Retaining Structures	3
CE 428	Applied Geotechnical Engineering	3
CE 429	Environmental Geo-techniques	3

Course Code	Course Title	Cr.
CE 430	Open Channel Flow	3
CE 431	Hydraulic Structures	3
CE 432	Hydraulic Machines	3
CE 433	Groundwater Hydrology and Management	3
CE 434	Air Pollution and Industrial Waste Management	3
CE 435	Solid Waste Engineering	3
CE 436	Environmental Impact Assessment	3
CE 437	Remote Sensing and GIS	3
CE 438	Pavement Design	3

* Open Elective : Any course of level 400 and above offered in the University and recommended by the department.

** Industrial Summer Training: Training shall be of 8 weeks duration carried out during the summer break after the 6th semester. The report will be submitted in the 7th semester.

COMPUTER SCIENCE AND ENGINEERING

Third Semester		
Course Code	**Course Title**	**Cr.**
MS 201	Mathematics - III	3
CO 201	Discrete Structures	4
CO 202	Digital Logic Design	4
CO 203	Data Structures	5
CO 212	Computer Architecture and Organization	5
EL 204	Signals and Systems	3
Total		**24**

Fourth Semester		
Course Code	**Course Title**	**Cr.**
CO 205	Formal Language and Automata	3
CO 206	Design and Analysis of Algorithms	4
CO 207	System Programming	3
CO 208	Object Oriented Programming	4
EL 221	Electronic Devices and Circuits	4
CO 213	Data Communication	4
Total		**22**

Fifth Semester		
Course Code	**Course Title**	**Cr.**
CO 301	Operating Systems	4
CO 302	Database Systems	5
CO 303	Computer Graphics	4
CO 304	Principles of Programming Languages	3
CO 305	Computer Networks	4
BM 321	Fundamentals of Management	3
Total		**23**

Sixth Semester		
Course Code	**Course Title**	**Cr.**
CO 306	Embedded Systems	4
CO 307	Software Engineering	4
CO 308	Compiler Design	4
BM 322	Social Responsibility and Professional Ethics in Engineering	3
	CS Elective - I	3
	Open Elective - I*	3
Total		**21**

Seventh Semester		
Course Code	**Course Title**	**Cr.**
CO 401	Artificial Intelligence	3
	CS Elective - II	3
	CS Elective - III	3
	Open Elective - II	3
CO 471	Industrial Summer Training**	2
CO 481	Project - I	6
Total		**20**

Eighth Semester		
Course Code	**Course Title**	**Cr.**
	CS Elective - IV	3
	Open Elective - III	3
CO 482	Project - II	12
Total		**18**

Elective Courses

Course Code	Course Title	Cr.
CO 421	Graph Theory	3
CO 422	Theory of Computation	3
CO 423	Web Technology	5
CO 424	E-Commerce	5
CO 425	VLSI Design	5
CO 426	Advanced Computer Architecture	3
CO 427	Modeling and Simulation	5
CO 428	Computer Peripherals and Interfacing	5
CO 429	Computer Systems Performance Evaluation	3
CO 430	Management Information System	3
CO 431	System Analysis and Design	3
CO 432	Information Theory and Coding	3
CO 433	Digital Signal Processing	3
CO 434	Image Processing	3

Course Code	Course Title	Cr.
CO 435	Mobile Computing	3
CO 436	Wireless Communication	3
CO 501	Network Management and Security	3
CO 502	Data Compression	3
CO 503	Fuzzy Logic and Neural Networks	3
CO 504	Natural Language Processing	3
CO 505	Advanced Database Management System	3
CO 506	Advanced Software Engineering	3
CO 507	Advanced Embedded Systems	3
CO 508	Grid Computing	3
CO 509	Computer Vision	3
CO 510	Robotics	3
CO 511	Ubiquitous and Pervasive Computing	3

*Open Elective : Any course of level 400 and above offered in the University and recommended by the department.

** Industrial Summer Training: Training shall be of 8 weeks duration carried out during the summer break after the 6th semester. The report will be submitted in the 7th semester.

ELECTRICAL ENGINEERING

Third Semester		
Course Code	**Course Title**	**Cr.**
MS 201	Mathematics – III	**3**
EE 201	Network Theory	**3**
EE 202	Network Laboratory	**2**
EL 201	Switching Circuits and Digital Logic	**4**
EL 203	Analog Electronic Devices and Circuits	**4**
EL 204	Signals and Systems	**3**
CO 212	Computer Architecture and Organization	**5**
Total		**24**

Fourth Semester		
Course Code	**Course Title**	**Cr.**
EE 203	Measurement and Instrumentation	4
EE 204	Electrical Machines -I	3
EE 205	Electrical Machines Laboratory -I	2
EL 205	Integrated Circuit	4
EL 206	Principles of Communication	4
EL 208	Engineering Electromagnetics	3
CO 221	Data Structures and Object Oriented Programming	4
Total		**24**

Fifth Semester		
Course Code	**Course Title**	**Cr.**
EE 301	Power Systems -I	**5**
EE 302	Electrical Machines -II	**3**
EE 303	Electrical Machines Laboratory -II	**2**
EL 302	Microprocessors and Interfacing	**4**
EL 303	Digital Signal Processing	**4**
EL 304	Control System Engineering	**4**
BM 321	Fundamental of Management	**3**
Total		**25**

Sixth Semester		
Course Code	**Course Title**	**Cr.**
EE 304	Power Systems -II	5
EE 305	Advanced Control System Engineering	4
EE 306	Power Electronics and Drives	3
EE 307	Power Electronics and Drives Laboratory	2
BM 322	Social Responsibility and Professional Ethics in Engineering	3
	EE Elective -I	3
	Open Elective –I*	3
Total		**23**

Seventh Semester		
Course Code	**Course Title**	**Cr.**
EE401	Computer Aided Power System Analysis	**5**
	EE Elective –II	**3**
	EE Elective -III	**3**
	Open Elective –II	**3**
EE402	Industrial Summer Training**	**2**
EE403	Project - I	**6**
Total		**22**

Eighth Semester		
Course Code	**Course Title**	**Cr.**
	EE Elective –IV	3
	Open Elective –III	3
EE 404	Project –II	12
Total		**18**

Elective Courses

Course Code	**Course Title**	**Cr.**
EE 308	Nonconventional Energy Sources	**3**
EE 309	Utilization and Conservation of Electrical Energy	**3**
EE 310	Embeded Systems	**3**
EE 405	Industrial Automation Systems	**3**
EE 407	Advanced Power Electronics and Drives	**3**

Course Code	**Course Title**	**Cr.**
EE 408	High Voltage Engineering	**3**
EE 409	Industrial Drives and Control	**3**
EE 411	Power System Interconnection and Control	**3**
EL 426	Fuzzy Logic and Neural Networks	**3**

***** Open Elective : Any course of level 400 and above offered in the University and recommended by the department.

** Industrial Summer Training: Training shall be of 8 weeks duration carried out during the summer break after the 6th semester. The report will be submitted in the 7th semester.

ELECTRONICS AND COMMUNICATION ENGINEERING

Third Semester		
Course Code	**Course Title**	**Cr.**
MS 201	Mathematics -III	3
EL 201	Switching Circuits and Digital Logic	4
EL 202	Electrical Technology	4
EL 203	Analog Electronic Devices and Circuits	4
EL 204	Signals and Systems	3
CO 212	Computer Architecture and Organization	5
Total		**23**

Fourth Semester		
Course Code	**Course Title**	**Cr.**
EL 205	Integrated Circuits	4
EL 206	Principles of Communication	4
EL 207	Instrumentation	4
EL 208	Engineering Electromagnetics	3
CO 221	Data Structures and Object Oriented Programming	4
CO 222	System Software and Operating Systems	4
Total		**23**

Fifth Semester		
Course Code	**Course Title**	**Cr.**
EL 301	Digital Communication	4
EL 302	Microprocessors and Interfacing	4
EL 303	Digital Signal Processing	4
EL 304	Control System Engineering	4
EL 305	Microwave Engineering	4
BM 321	Fundamentals of Management	3
Total		**23**

Sixth Semester		
Course Code	**Course Title**	**Cr.**
EL 306	Communication Networks	4
EL 307	Device Modelling & Simulation	4
EL 308	VLSI Design	4
BM 322	Social Responsibility and Professional Ethics in Engineering	3
	ECE Elective - I	3
	Open Elective -I*	3
Total		**21**

Seventh Semester		
Course Code	**Course Title**	**Cr.**
EL 401	Digital Systems Design and VHDL	4
	ECE Elective - II	3
	ECE Elective - III	3
	Open Elective - II	3
EL 471	Industrial Summer Training**	2
EL 481	Project - I	6
	Total	**21**

Eighth Semester		
Course Code	**Course Title**	**Cr.**
	ECE Elective - IV	3
	Open Elective - III	3
EL 482	Project - II	12
	Total	**18**

Elective Courses

Course Code	Course Title	Cr.
EL 421	Image Processing	3
EL 422	Electronic Design Automation	3
EL 423	Medical Electronics	3
EL 424	Fiber Optic Communication	3
EL 425	Mobile Communication	3

Course Code	Course Title	Cr.
EL 426	Fuzzy Logic and Neural Networks	3
EL 427	Satellite Communication Systems	3
EL 428	Information and Coding Theory	3
EL 429	Graph Theory	3
EL 430	Computer Vision	3

Elective Courses (Contd...)

Course Code	Course Title	Cr.
EL 431	MEMS and Microsystems Technology	3
EL 432	Advance Semiconductor Devices	3
EL 433	Biomedical Signal Processing	3
EL 434	Bioneuro Engineering	3
EL 435	Nanoelectronics	3

Course Code	Course Title	Cr.
EL 436	Intelligent Instrumentation	3
EL 437	Wireless Communication	3
EL 438	Digital Signal Processor	3
EL 439	Power Electronics	3

* Open Elective : Any course of level 400 and above offered in the University and recommended by the department.

** Industrial Summer Training: Training shall be of 8 weeks duration carried out during the summer break after the 6th semester. The report will be submitted in the 7th semester.

FOOD ENGINEERING AND TECHNOLOGY

Third Semester		
Course Code	**Course Title**	**Cr.**
MS 201	Mathematics - III	3
FT 201	Food Chemistry	4
FT 202	Basic and Food Microbiology	4
FT 203	Fluid Mechanics	5
FT 204	Computations in Food Processing	4
ME 205	Thermodynamics	4
Total		**24**

Fourth Semester		
Course Code	**Course Title**	**Cr.**
FT 205	Food Biochemistry and Nutrition	4
FT 206	Principles of Food Processing and Preservation	3
FT 207	Transfer Processes in Food Engineering	4
FT 208	Mechanical Operations in Food Processing	4
FT 209	Fruits and Vegetables Process Technology	3
EL 321	Instrumentation and Process Control	4
Total		**22**

Fifth Semester		
Course Code	**Course Title**	**Cr.**
FT 301	Instrumental Methods of Food Analysis	2
FT 302	Thermal Operations in Food Processing	4
FT 303	Mass Transfer Operations in Food Processing	4
FT 304	Cereals, Pulses and Oilseeds Processing Technology	4
FT 305	Biochemical Engineering	3
FT 306	Recent Advances in Food Research	1
BM 321	Fundamentals of Management	3
Total		**21**

Sixth Semester		
Course Code	**Course Title**	**Cr.**
FT 307	Food Quality and Safety	3
FT 308	Food Plant Utilities	3
FT 309	Dairy Products Technology	3
FT 310	Food Process Equipment Design	3
BM 322	Social Responsibility and Professional Ethics in Engineering	3
	FT Elective - I	3
	Open Elective - I*	3
Total		**21**

Seventh Semester		
Cours Code	**Course Title**	**Cr.**
FT 401	Food Packaging, Transportation and Storage	3
FT 402	Plant Design and Process Economics	3
	FT Elective - II	3
	FT Elective - III	3
	Open Elective - II	3
FT 471	Industrial Summer Training**	2
FT 481	Project - I	6
Total		**23**

Eighth Semester		
Course Code	**Course Title**	**Cr.**
	FT Elective - IV	3
	Open Elective - III	3
FT 482	Project - II	12
Total		**18**

Elective Courses

Course Code	Course Title	Cr.
FT 421	Bakery and Confectionary Technology	3
FT 422	Plantation Products and Spices Technology	3
FT 423	Oils and Fats Technology	3
FT 424	Processing Technology of Meat, Poultry and Fish	3
FT 425	Fermented and Non Fermented Beverages	3
FT 426	Food Product Development	3
FT 427	Flavors Technology	3
FT 428	Specialty Foods: Nutraceuticals and Functional Foods	3
FT 429	Traditional Indian Foods	3
FT 430	Industrial Microbiology and Enzyme Technology	3

Course Code	Course Title	Cr.
FT 431	Food Process Design and Analysis	3
FT 432	Food Process Automation	3
FT 433	Numerical Methods in Food Processing	3
FT 434	Energy Conservation in Food Processing	3
FT 435	Food Plant Hygiene and Sanitation	3
FT 436	Food Industry Waste Management	3
FT 437	Industrial Safety and Hazards	3
FT 438	Optimization Techniques	3
FT 439	Advanced Food Processing Methods	3
FT 440	Engineering Properties of Biological Materials	3

* Open Elective : Any course of level 400 and above offered in the University and recommended by the department.

** Industrial Summer Training: Training shall be of 8 weeks duration carried out during the summer break after the 6th semester. The report will be submitted in the 7th semester.

MECHANICAL ENGINEERING

Third Semester		
Course Code	**Course Title**	**Cr.**
MS 201	Mathematics - III	3
ME 201	Solid Mechanics	4
ME 202	Fluid Mechanics - I	3
ME 203	Material Science	3
ME 205	Thermodynamics	4
ME 206	Mechanical Engineering Laboratory -I	3
EL 202	Electrical Technology	4
Total		**24**

Fourth Semester		
Course Code	**Course Title**	**Cr.**
MS 202	Mathematics - IV	3
ME 204	Machine Drawing	2
ME 207	Theory of Mechanisms and Machines	4
ME 208	Manufacturing Technology - I	3
ME 209	Fluid Mechanics - II	3
ME 210	Mechanical Engineering Laboratory- II	3
CO 221	Data Structures and Object Oriented Programming	4
Total		**22**

Fifth Semester		
Course Code	**Course Title**	**Cr.**
ME 301	Dynamics and Vibration of Machinery	3
ME 302	Mechanical Measurements and Instrumentation	3
ME 303	Manufacturing Technology - II	3
ME 304	Applied Thermodynamics - I	3
ME 305	Mechanical Design	4
ME 310	Mechanical Engineering Laboratory - III	3
BM 321	Fundamentals of Management	3
Total		**22**

Sixth Semester		
Course Code	**Course Title**	**Cr.**
ME 306	Advanced Workshop Practice	3
ME 307	Applied Thermodynamics - II	3
ME 308	Heat and Mass Transfer	4
ME 309	Systems and Control	3
BM 322	Social Responsibility and Professional Ethics in Engineering	3
	ME Elective - I	3
	Open Elective - I*	3
Total		**22**

Seventh Semester		
Course Code	**Course Title**	**Cr.**
ME 401	Industrial Systems Engineering	3
	ME Elective - II	3
	ME Elective - III	3
	Open Elective - II	3
ME 471	Industrial Summer Training**	2
ME 481	Project - I	6
Total		**20**

Eighth Semester		
Course Code	**Course Title**	**Cr.**
	ME Elective - IV	3
	Open Elective - III	3
ME 482	Project - II	12
Total		**18**

Elective Courses

Course Code	Course Title	Cr.
ME 421	Computer Graphics and Solid Modeling	3
ME 422	Optimization Methods in Engineering	3
ME 423	Mechanical Vibration	3

Course Code	Course Title	Cr.
ME 424	Theory of Elasticity	3
ME 425	Machine Tools and Machining	3
ME 426	Reliability Engineering	3

Elective Courses (Contd....)

Course Code	Course Title	Cr.
ME 427	Productivity Improvement Techniques	3
ME 428	Finite Element Methods in Engineering	3
ME 429	Gas Turbine and Compressor	3
ME 430	Value Engineering	3
ME 431	Fracture and Fatigue	3
ME 432	Engineering Optimization	3
ME 433	Experimental Stress Analysis	3
ME 434	Composite Materials	3
ME 435	Machine Tool Design	3
ME 436	Combustion Engineering	3
ME 437	Tea Machineries	3
ME 438	Petroleum and Drilling Technology	3
ME 439	Refrigeration and Air Conditioning	3
ME 440	Advanced Solid Mechanics	3
ME 504	Failure Analysis of Materials	3
ME 505	Advanced Dynamics	3
ME 521	Robotics	3
ME 522	Quality Engineering	3
ME 523	Non-Conventional Energy	3

Course Code	Course Title	Cr.
ME 524	Operations Management	3
ME 525	Tribology	3
ME 526	Modern Control System	3
ME 527	Computer Aided Design	3
ME 528	Computer Aided Process Planning	3
ME 529	Artificial Intelligence in Engineering	3
ME 531	Project Management	3
ME 532	Power Plant Engineering	3
ME 533	Energy Management	3
ME 534	Mechatronics	3
ME 535	Advanced Engineering Thermodynamics	3
ME 537	Applied Computational Methods	3
ME 539	Optimization Techniques in Engineering	3
ME 540	Evolutionary Algorithms for Optimum Design	3
ME 542	Computational Fluid Dynamics	3
ME 543	Compressible Flow	3
ME 601	Automobile Engineering	3
ME 602	Computational Fluid Dynamics and Heat Transfer	3
ME 621	Energy Conservation and Waste Heat Recovery	3

* Open Elective : Any course of level 400 and above offered in the University and recommended by the department.

** Industrial Summer Training: Training shall be of 8 weeks duration carried out during the summer break after the 6th semester. The report will be submitted in the 7th semester.

Elective courses are offered based on the choice of students and availability of teacher for teaching a particular course.

SECTION THREE

POST GRADUATE, UNDER GRADUATE, DEGREE, DIPLOMA AND CERTIFICATE PROGRAMMES OFFERED IN THE UNIVERSITY : Eligibility and Intake for each Programme

The University offers the following Degree, Diploma and Certificate programmes under various departments. The eligibility, duration of the programmes and tentative intake are shown in the following table. Intake under SSS is subject to change. Candidates are advised to visit University website for further update.

Degree, Diploma and Certificate						
Department	**Programme**	**Eligibility**	**Duration (semesters)**		**Tentative Intake**	
			Min	**Max**	**Merit**	**SSS**
Business Administration	**Master of Business Administration (MBA)**	Bachelor's degree in any discipline with a minimum of 50% marks in major/ honours subject or in aggregate. *(Admission Process of 2015 is already over).*	4	8	46	4
	P.G. Diploma in Tourism Management (PGDTM)	Bachelor's degree in any subject with at least 45% marks in major/honours subject or in aggregate.	2	4	23	-
Commerce	**Integrated M. Com.**	Minimum 60% aggregate marks in higher secondary (+2) final examination.	10	14	30	--
Chemical Sciences	**M.Sc. in Chemistry**	Bachelor's degree with major/ honours in Chemistry subject with a minimum of 45% marks and having Physics and Mathematics as subsidiary subjects.	4	8	20	1
	Integrated M.Sc. in Chemistry	Minimum 60% aggregate marks in Physics, Chemistry and Mathematics at 10+2 and pass marks in English.	10	14	15	1
	M. Tech. in Polymer Science and Technology	B.Tech/B.E in Polymer Science and Technology/ Fiber Science and Technology/ Textile Technology/ Plastic Technology/ Chemical Engineering; Master of Science in any discipline from a recognized Institutions with 50% marks or equivalent grade and having Chemistry as one of the subject in the Bachelor Degree.	4	8	10	1
	Integrated B.Sc.B.Ed. in Chemistry	First division in the Higher Secondary (Plus Two) School Final Examination (Science stream)	8	12	10	1
Civil Engineering	**B. Tech. in Civil Engineering**	Minimum 50% aggregate marks in PCM (Phys, Chem and Math) subjects at 10+2 and pass marks in English.	8	12	50	4
Computer Science and Engineering	**B.Tech. in Computer Science and Engineering**	Minimum 50% aggregate marks in PCM (Phys, Chem and Math) subjects at 10+2 and pass marks in English.	8	12	52	4
	Master of Computer Application (MCA)	Bachelor's degree in any discipline with a minimum of 50% marks in major / honours subject or 55% marks in aggregate for those candidates having no major/honours. Passed in Mathematics at 10+2 level.	6	10	45	-
	M. Tech. in Information Technology*	B.E. / B.Tech. degree in any discipline or MCA or its equivalent or M.Sc. in Computer Science / IT / Electronics / Mathematics / Statistics / Physics with a minimum of 50% marks in aggregate.	4	8	28	-
Centre for Women's Studies	**P. G. Diploma in Women's Studies**	Bachelor Degree in any discipline	2	4	20	-

Degree, Diploma and Certificate						
Department	**Programme**	**Eligibility**	**Duration (semesters)**		**Tentative Intake**	
			Min	**Max**	**Merit**	**SSS**
Cultural Studies	**M.A. in Cultural Studies (Modular)**	Bachelor's degree in any discipline with at least second class in Major subject. Candidates having no major / honours, must have a minimum of 45% marks (40% for SC/ST) in aggregate.	4	8	46	3
Electronics and Communication Engineering	**B. Tech. in Electronics and Communication Engineering**	Minimum 50% aggregate marks in PCM (Phys, Chem and Math) subjects at 10+2 and pass marks in English.	8	12	52	4
	B. Tech. in Electrical Engineering	Minimum 50% aggregate marks in PCM (Phys, Chem and Math) subjects at 10+2 and pass marks in English.	8	12	30	-
	M. Tech. in Electronics Design and Technology*	B.E./B.Tech./AMIE/AMIETE in Electronics/ Electrical/ Instrumentation Engineering or M.Sc. in Electronics/Instrumentation/Physics (Electronics as specialization)/ AMIETE with a minimum of 50% marks in aggregate.	4	8	28	2
	M. Tech. in Bioelectronics **	B.E./B.Tech. in Electronics and Communication Engineering/Instrumentation/Chemical Engineering/ Computer Science and Engineering/ Electrical Engineering/ Biomedical Engineering/ Bioengineering/NeuroEngineering/ Genetic Engineering/ Biotechnology or M.Sc. in Biotechnology/ Biochemistry /Chemistry/Polymer Science/ Physics/ Electronics/ Nano Science and Technology/ Instrumentation or MBBS with at least 50% marks in aggregate.	4	8	15	3
Energy	**M. Tech. in Energy Technology***	B.E./ B.Tech. / AMIE in Mechanical /Electrical / Electronics / Instrumentation / Chemical / Agricultural Engineering / Energy Engineering or M.Sc. in Physics/ Chemistry with a minimum of 50% marks in aggregate.	4	8	28	-
	B. Voc. (Agriculture)-Renewable Energy	Students passing **(10+2)** level examination in Science stream from a recognized Board/ University with 50% marks or equivalent grade in aggregate are eligible to apply.	6		50	-
English and Foreign Languages	**M.A. in English**	Bachelor's degree with at least 45% marks in major/honours in English. Candidates not having major/honours must have at least 50% marks in aggregate as well as in English.	4	8	50	2
	M. A. in Linguistics and Language Technology	(1) B. A. with honours in Linguistics/English/any allied subject with a minimum of 45% marks, or (2) B.A. with a minimum of 50% of aggregate marks	4	8	20	2
	Integrated M.A. in English	First division in the Higher Secondary (Plus Two) School Final examinations.	10	14	10	2
	Integrated B.A.B.Ed.	First division in the Higher Secondary (Plus Two) School Final examinations.	8	12	10	2
	One year Certificate Course in Chinese	10+2 with 45% of marks in aggregate.	2	4	39	-
	M.A in Linguistics and Endangered Languages	Graduate in any discipline with 45% marks in major or 50% marks without major	4	8	20	-

Degree, Diploma and Certificate						
Department	**Programme**	**Eligibility**	**Duration (semesters)**		**Tentative Intake**	
			Min	**Max**	**Merit**	**SSS**
Education	**M. A. in Education**	45 % marks at graduation level, Graduate in Education (major / honours) or any other discipline.	4	8	30	5
Environmental Science	**M.Sc. in Environmental Science**	B.Sc. in Physical/Biological/ Earth and Environmental Sciences as major/ honours with a minimum of 50% marks. Candidates not having major/honours, must have at least 55% marks in aggregate. Or, B.Sc. (Agri.) with at least 5.0 CGPA in 10 point scale or equivalent.	4	8	30	2
Food Engineering and Technology	**M. Tech. in Food Engineering and Technology**	i) B.E. /B. Tech. degree in Food Engg./ Food Process Engg./ Food Technology/ Agricultural Engg./ Mechanical Engg./ Chemical Engg/ Biotechnology or related fields with a minimum of 60% marks in aggregate. (The B. Tech./ B.E. programme completed by the candidate should satisfy the AICTE requirements). ii)02 years M.Sc. in Food Technology/ Food Processing Technology with a minimum of 60% marks in aggregate. (50% in Mathematics at 10+2 level is compulsory. However, it is exempted if the candidate has passed mathematics in programme(s) prescribed as qualification.)	4	8	18	-
	B. Tech. in Food Engineering and Technology	Minimum 50% aggregate marks in PCM (Physics, Chemistry and Mathematics) at 10+2 and pass marks in English.	8	12	30	4
	B. Voc. (Agriculture) - Food Processing	Students passing **(10+2)** level examination in Science stream from a recognized Board/University with 50% marks or equivalent grade in aggregate are eligible to apply.	6		50	-
Hindi	**MA in Hindi**	Bachelor's degree with Major/ honours in Hindi from a recognised University or Bachelor's degree with Hindi with an elective subject having at least 50% of marks in aggregate.	4	8	25	2
	P.G. Diploma in Translation (Hindi)	B.A. with Hindi major/honours or B.A. with Elective Hindi or, B.A. / B.Com./B.Sc. with Praveen/Sahityaratna. Candidates not having major/honours must have atleast 50% marks in aggregate.	2	4	23	—

Degree, Diploma and Certificate						
Department	**Programme**	**Eligibility**	**Duration (semesters)**		**Tentative Intake**	
			Min	**Max**	**Merit**	**SSS**
Mass Communication and Journalism	**M.A. in Mass Communication and Journalism**	Bachelor's degree in any discipline with at least 45% marks in major/ honours. Candidates not having major/honours must have at least 50% marks in aggregate.	4	8	35	2
	P.G. Diploma in Mobile and Multimedia Communication	Bachelor's degree in any discipline with at least 45% marks in major/ honours subject or in aggregate. For sponsored candidates, Bachelor's degree in any discipline with a minimum of 2 years of service with sponsoring organizations.	2	4	15	-
Mathematical Sciences	**M.A./M.Sc. in Mathematics**	Bachelor's degree with a minimum of 45% marks in major/honours, either Mathematics or Statistics. Candidates with Statistics major/ honours must have Mathematics as subsidiary course with a minimum of 50% marks. Candidates not having major/honours must have 50% marks in aggregate as well as in Mathematics.	4	8	42	1
	Integrated M.Sc. in Mathematics	Minimum 60% aggregate marks in Mathematics, Physics, Chemistry/Statistics subjects at 10+2 and pass mark in English.	10	14	15	1
	Integrated B.Sc.B.Ed.	First division in the Higher Secondary (Plus Two) School Final examinations (Science).	8	12	10	1
Mechanical Engineering	**M. Tech. in Mechanical Engineering (Specialization in Applied Mechanics)**	BE/B.Tech. or equivalent Bachelor's degree in Mechanical, Production, Aerospace, Aeronautical, Metallurgy, Civil, or in any other relevant Engineering discipline.	4	8	18	-
	B. Tech. in Mechanical Engineering	Minimum 50% aggregate marks in PCM (Phys, Chem and Math) subjects at 10+2 and pass mark in English.	8	12	52	4
Molecular Biology and Biotechnology	**M.Sc. in Molecular Biology and Biotechnology *****	Bachelor's degree in Physical, Biological, Agricultural, Veterinary, Fishery Sciences, Pharmacy, Engineering/ Technology, four years B.S. programme (Physician Assistant course) or Medicine, MBBS or BDS with a minimum 55% marks in major/honours or aggregate. Those who have passed the qualifying examination before 2 years from the date of announcement of admission are not eligible.	4	8	30	-
	Integrated M.Sc. in Bioscience and Bioinformatics	Minimum 60% aggregate marks with Biology, Chemistry, Physics and/or Mathematics subjects at 10+2 and pass mark in English.	10	14	15	1

Degree, Diploma and Certificate						
Department	**Programme**	**Eligibility**	**Duration (semesters)**		**Tentative Intake**	
			Min	**Max**	**Merit**	**SSS**
Physics	**M.Sc. in Physics**	B.Sc. with minimum of 50% marks in major/honours in Physics having Mathematics as one of the subsidiary subjects. Candidate not having major/honours must have 55% marks in aggregate and in Physics.	4	8	20	1
	M.Sc.in Nanoscience and Technology	(i) Bachelor's degree with 50% marks in Physics as major/honours subjects and Chemistry, Biology/Mathematics as allied subjects Or, (ii) Bachelor's Degree with 50% marks in Chemistry as major/honours subject with Physics, Biology/ Mathematics as allied subjects or, (iii) Bachelor's with 50% marks in Biology as major/honours subject with Physics, Chemistry/ Mathematics as allied subjects. Candidates having no major/honours must have minimum 55% marks in aggregate.	4	8	20	1
	Integrated M.Sc. in Physics	Minimum 60% aggregate marks in PCM (Phy, Chem. and Math) subjects at 10+2 and pass mark in English.	10	14	15	1
	Integrated B.Sc.B.Ed.	First division in the Higher Secondary (Plus Two) School Final examinations (Science).	8	12	10	1
Social Work	**M.A. in Social Work**	Graduate in any discipline with 45% marks in Major	4	6	15	--
Sociology	**M.A. in Sociology**	Bachelor's degree with at least 45% marks in Sociology major/honours or in any subject offered as major/honours. Candidates not having major/honours must have 50% marks in aggregate.	4	8	30	5

Relaxation: 5% relaxation in marks is allowed for candidates belonging to SC/ST categories.

* 5 seats are reserved for sponsored candidates (they have to qualify in the TUEE)

** 3 seats are reserved for sponsored candidates (they have to qualify in the TUEE)

*** Only ten seats will be filled up through TUEE. The application form attached with this prospectus is only for these ten seats. For rest of the seats, candidates are selected for admission through "All India Combined Entrance Test" conducted by the Jawaharlal Nehru University, New Delhi under the sponsorship of the Department of Biotechnology, Government of India, New Delhi (eligibility as decided by DBT, Government of India from time to time).

SECTION FOUR

Ph.D. PROGRAMME

Ph.D. PROGRAMME

The University is offering Ph.D. programme in the following Departments for Autumn semester 2015 in the Academic Year 2015-2016

1. Business Administration
2. Chemical Sciences
3. Civil Engineering
4. Computer Science and Engineering
5. Electronics and Communication Engineering
6. Energy
7. English and Foreign Languages
8. Environmental Science
9. Food Engineering and Technology
10. Hindi
11. Mathematical Sciences
12. Mechanical Engineering
13. Molecular Biology and Biotechnology
14. Physics
15. Sociology

Some important information regarding the Ph.D. programme of the University are highlighted below. Detail regulations currently in force may be perused in the document "Ph.D. Rules and Regulation" available in the University website under the link Academic Regulations.

COURSE WORK, COURSE REGISTRATION AND ATTENDANCE REQUIREMENTS

Course Work:
A student admitted to the Ph. D. programme shall be required to complete specified course work prior to the submission of Plan of Research as per the recommendation of the Departmental Research Committee (DRC)/ Research Committee for Centre (CRC). Currently the scholars are required to complete a total of 16 credits (1 credit generally consists of one hour lecture/ tutorials or two hours of practical in a week). As a revolutionary step initiated by the University towards implementation of Choice Based Credit Transfer (CBCT) system out of the stipulated credit requirement 4 credit should be from another Department. The course work should be completed within the first two Semesters. However, employed part-time candidates shall be given the option of carrying out the course work during any two of the first three semesters.

In order to continue research a candidate must secure a CGPA (Cumulative Grade Point Average) of 6 or more.

During the course work, students shall report at the Department/Centre regularly and attend classes or do assigned tasks.

Course registration:
The Courses opted by the students in a particular Semester are to be registered on the specified date(s). For newly admitted students, registration of courses shall take place during 27th July, 2015 along with the Admission formalities.

Attendance requirement:
All students including Ph.D. scholars must attend every lecture, tutorial and practical classes of the course registered by him/her. However, to account for late registration, sickness or other such contingencies, the attendance requirement will be a minimum 90% of the classes. Students with deficiency in attendance in a course will not be allowed to appear in the Term-end examination and will be assigned W grade in the course.

Renewal of admission:
Every student will renew his/her admission in the successive Semesters on or before the notified dates. No student is allowed to get himself/herself admitted after scheduled date.

Monitoring the progress of research:
During the period of research work scholars shall be in touch with their supervisors and give at least one seminar in each semester on experiments/ field work/ library work completed during the Semester. Except for part-time students, other categories of students shall be generally available in the Department/ Centre unless they are engaged in experiments/ field work/ library work elsewhere with prior permission of the supervisors.

CATEGORIES OF CANDIDATES

The University shall admit Ph. D. students under the following categories:

a) **Full Time**: Students under this category shall work full time for the Ph. D. courses/ research. They may apply for fellowship/assistantship available from different funding agencies.

b) **Sponsored**: Candidates may be sponsored by recognised R&D organisations, national institutions, other universities, government organizations or industries. They shall be admitted through the normal process, and they shall not be entitled to any fellowship/assistantship from the University. They shall work full time for the Ph.D. courses/research.

c) **Project Fellows**: Students working on different research projects at Tezpur University may be admitted to the Ph.D. programme provided they satisfy the eligibility criteria, subject to the consent of the Principal Investigator of the project.

d) **Part Time:** Candidates employed in near by academic institution /University (including Tezpur University)/ R&D organizations may be considered for admission into the Ph. D. programme of Tezpur University, following the normal admission procedure. They shall fulfil the stipulated requirements for Ph. D. admission.

The University encourages full time scholars, and as such the applicants shall be admitted as Part-time scholars only in exceptional cases.

Eligibility for Admission:
Master's Degree in Humanities and Social Sciences/ Management Sciences/ Science/ Engineering/ Technology or Master's degree in the allied subject with consistently good academic record and minimum of 55% marks or an equivalent CGPA in the Master's Degree/ B. E./ B. Tech. with an aggregate of 80% marks or equivalent CGPA with valid GATE score.

A fellowship in Chartered Accountancy/ Company Secretary-ship from a recognized Indian or foreign institution with not less than 60% of marks or equivalent CGPA having a minimum of Bachelor's Degree.

Relaxation in requisite qualifications for SC/ST candidates shall be followed as per Central Govt. rules.

For detail Department-wise eligibility criteria one may consult the table given hereunder. It may please be noted that mere fulfilment of the minimum eligibility criteria does not guarantee shortlisting of the candidate for the Admission Test. For detail one may contact the Department and/or its website.

ADMISSION TEST AND SELECTION

The names of the shortlisted candidates who are eligible for appearing in the Admission Test will be published in the University website along with the specific selection procedure to be followed by the Department. The list shall be published within a reasonable time ahead of the test date(s). No separate call letters or Admit Card shall be sent to shortlisted candidates. The test dates are given in the Annexure -II.

Final selection of candidates will strictly be done on merit based on performance in the Admission Test followed by personal interview.

The Departments follow individual selection procedure, and as such the candidates may consult the Department and its website for specific information on selection tests etc.

Requisite qualifications for admission into various disciplines of Ph. D. programmes

School	Department	Qualification
Engineering	**Civil Engineering**	Master's degree in Engineering/Technology/Science. B. E./B. Tech with 80% marks in aggregate or equivalent CGPA with a valid GATE Score.
	Computer Science and Engineering	M. Tech. in Computer Science/ I.T./ Electronics MCA M. Sc. in Computer Science/ I.T. B. E./B. Tech. with 80% marks in aggregate or equivalent CGPA with valid GATE score.
	Electronics and Communication Engineering	M. E. / M. Tech. / M. Sc. Engg. / M. S. in Electronics/ Communication/ Electronics Design/ Electrical/ Instrumentation / Control/ Microwave /Biomedical/ Bioelectronics/ Bio-Technology/ Computer Science/ Information Technology. M. Sc. in Electronics/ Physics/ Applied Mathematics. MCA with Physics, Chemistry and Mathematics in Bachelor degree, MBBS with MD/ MS degree. B. E. / B. Tech. with 80% marks in aggregate or equivalent CGPA with valid GATE score.
	Food Engineering and Technology	M. Sc. /M. Tech. / M. E. in Food Tech/Food Processing Technology/ Food science and Technology / Food and Nutrition / Microbiology / Food Microbiology / Biochemistry / Chemistry / Biotechnology/ Food Engineering/ Applied Microbiology/ Dairy engineering/ Food Biotechnology Engineering. B. E. / B. Tech. with an aggregate of at least 80% marks or equivalent CGPA.
	Mechanical Engineering	M. E. / M. Tech. / M Sc. (Engg.) in Mechanical Engg. or allied areas. B. E. /B. Tech with 80% marks in aggregate or equivalent CGPA with a valid GATE Score.
	Energy	M. Sc. / M. E. / M. Tech. degree in Energy Technology/ Energy Management/ Energy related Engineering & Technology/ Physics/ Chemistry/Agriculture/ Allied subjects.
Humanities & Social Sciences	**Cultural Studies**	M. A. in any of the disciplines in Humanities or Social Sciences with a uniformly good academic career. Candidates with UGC JRF, UGC NET or NE SET will be given preference
	English and Foreign Language	M. A. in English (specialization may be in Literature, English Language Teaching or Linguistics) M. A. in Linguistics
	Hindi	M. A. in Hindi
	Mass Communication and Journalism	M. A. in Mass Communication, Mass Communication & Journalism/ Communication. Master of Mass Communication (MMC). Master of Journalism & Mass Communication (MJMC). Master of Science in Communication (M. S. Communication). M. Sc. Communication. Master of Journalism.
	Sociology	Post-Graduation in Sociology / Cultural Studies / Anthropology (with specialization in Social Anthropology) / Economics / History / Political Science / Philosophy / Mass Communication / English / Law / Management/ Social Work.

School	Department	Qualification
Management Sciences	**Business Administration**	M. B. A. M. Com. M. A. / M. Sc. in Economics M. A. in Psychology/ Sociology/Social Work./Cultural Studies M. C. A M. T. M. / M. T. A. FCA/ FCS/ FICWA
Sciences	**Chemical Sciences**	M. Sc. in all branches of Chemical Science/ Physics/Nano Science/ Material Science/ Biotechnology/ Biochemistry/ Bioinformatics/ Environmental Science. M. E./M. Tech. in allied subjects (Chemical Engineering/ Polymer Technology/ Material Sciences/ Environmental Engineering, etc.); B.Tech. in Chemical Engineering/ Polymer Technology/ Material Sciences/ Environmental Engineering, etc. with 80% marks in aggregate or equivalent grade.
	Mathematical Sciences	M. A. / M. Sc. degree in Mathematics/ Statistics/ Physics/ Computational Seismology/ Economics with requisite background in Mathematics.
	Molecular Biology and Biotechnology	Masters in any branches of Life Sciences /Physical Sciences /Chemical Sciences / Mathematical Sciences / Agricultural Sciences / Veterinary or Sciences / Engineering Sciences / Medical Sciences or in any allied field. B. Tech. / B. E degree students with 80% marks in CGPA (with GATE score > 90.00) percentile in Bio-chemical Sciences / Chemical Sciences / Bioinformatics or any allied field. MBBT or BVSc. Degree with at least 60% marks or equivalent CGPA. Apart from the above, candidates having consistently good academic record will be preferred.
	Physics	M. Sc. in Physics/ Electronics/ Geophysics/ Material Science/ Applied Mathematics/ Nano Science & Technology/ Biotechnology/ Environmental Science and Chemical Science. M. Phil., M. Tech in Solid State Material/ Materials Science/ Electronics/Energy/ Nanoscience and Technology/ Biotechnology/ Environmental Science and Chemical Sciences. B. Tech. in Engineering Physics with 80% marks in aggregate or equivalent CGPA.
	Environmental Science	Masters in any Science / Applied Science / Engineering discipline with at least 55% marks or equivalent CGPA. At Bachelor's level the candidate must have attended Science / Technology programme.

Seats are reserved for SC/ST/ OBC (NCL), Kashmiri Migrant and Person with Disability (PWD) candidates as per central government rules. PWD candidates with at least 40% permanent disabilities will only be considered.

Direct Admission:
Candidates with B.Tech. degree from Tezpur University in Computer Science and Engineering, Electronics and Communication Engineering, and Mechanical Engineering with an aggregate of at least 80% marks or equivalent CGPA in relevant branch may apply for direct admission to Ph.D. programme.

Recognised supervisors of Tezpur University and their areas of specialization :
The names of available supervisors and their areas of research interests have been indicated in the Departmental Profile in Section Five. For detail candidates may browse through the specific faculty's webpage available in www.tezu.ernet.in.

SECTION FIVE

DEPARTMENTS

At present Tezpur University has 20 different departments and centres under the umbrella of four schools of studies. The school wise distribution of department/ centre is given below:

1. School of Engineering:
(a) Department of Civil Engineering
(b) Department of Computer Science and Engineering
(c) Department of Electronics and Communication Engineering
(d) Department of Energy
(e) Department of Food Engineering and Technology
(f) Department of Mechanical Engineering

2. School of Humanities and Social Sciences:
(a) Department of Cultural Studies
(b) Department of Education
(c) Department of English and Foreign Languages
(d) Department of Hindi
(e) Department of Mass Communication and Journalism
(f) Department of Social Work
(g) Department of Sociology
(h) Centre for Women Studies
(i) Centre for Assamese Studies

3. School of Management Sciences:
(a) Department of Business Administration
(b) Department of Commerce
(c) Centre for Disaster Management
(d) Intellectual Property Rights Cell

4. School of Sciences:
(a) Department of Chemical Sciences
(b) Department of Environmental Science
(c) Department of Mathematical Sciences
(d) Department of Molecular Biology and Biotechnology
(e) Department of Physics

The alphabetical departmental profiles along with the faculty and their areas of specialisations are given in this section from the next page.

BUSINESS ADMINISTRATION
(Year of Establishment: 1995)

The Department of Business Administration came into existence in 1995 with the objective of producing quality management professionals and carrying out research in the areas of Finance, Human Resources, Marketing, Production and Systems Management. The Department also offers PG Diploma in Tourism Management. The Department is rated A3 by AIMA in the year 2012. The Department is awarded 3rd Asia's Best B-school award for its innovation in teaching methodology in 2012, rated A+ by Business India, rated A by Discovery Education Media for 2012-13 and recipient of "Best Business School Award" in the category of placement (NE Region) awarded by Bureaucracy Today. The Department is a recipient of research grant under the UGC Special Assistance Programme DRS-I

Programmes offered

1. 6 months Certificate Course on Air Ticketing and Computerized Reservation System.
2. P G Diploma in Tourism Management.
3. Master of Business Administration (MBA).
   (*Admission process is already over for the year 2015*)
4. Ph. D.

Faculty and Areas of Interest:

Professors	
*Sarma, M. K., Ph.D. (TU)	*Service Marketing.*
*Goswami, Chandana., Ph.D. (GU)	*Financial Management, General Management.*
*Sarkar, S. S., Ph.D. (TU)- Dean, SoMS	*Accounting, Taxation, Social Development Issues.*
*Das, D., Ph.D. (RGU)-HoD	*Financial Management, Financial Markets and Development Finance.*
*Goswami, Chandan., Ph.D. (TU)	*Marketing and Promotional Strategies, Consumer Behaviour, Tourism.*
*Baruah, P., Ph.D. (TU)	*Change Management and Human Resource Management, Organization Behaviour, Rural Development.*
Associate Professors	
*Sarma, T. R., Ph.D. (TU)	*Systems Management, Operations, Project Management, Tourism.*
*Bhuyan, A., Ph.D. (TU)	*Economics, Tourism Management, Entrepreneurship, Business Ethics.*
$Roy , A., Ph.D. (TU)	*Microfinance, Stock Market, Financial Derivatives.*
Assistant Professors	
Barpujary, H., Ph.D. (TU)	*Knowledge Management, E -Commerce, Web Technology.*
Mahanta, K., Ph.D. (DU)	*Human Resource Management, Employee Engagement, Work Life Balance.*
Das, R., Ph.D. (GU)	*Marketing, Rural Marketing.*
Dutta, M., Ph.D. (GU)	*Leisure, Intellectual Property Rights, Community Models.*
Tiwari, R, K., M. Com. (GU)	*Accounting, Business Relations Framework.*

***Recognized Supervisor** **$ Recognized Associate Supervisor**

LEGENDS: ***TU**- Tezpur University, **GU**- Gauhati University, **DU**- Dibrugarh University, **RGU**- Rajiv Gandhi University, Itanagar, **SoMS**-School of Management Sciences, **HoD**- Head of the Department.*

Facilities :

The Department is well equipped with modern educational facilities like state of the art computer laboratory and instructional audio-visual aids including LCD projector etc. The Department has an air conditioned board room for facilitating case study, group discussion etc.

Research Activity:

No. of papers published in the year 2014 (up to September): **10** (Journal)
No. of ongoing research project/consultancy: **3**

Selected publications:

1. Das, D. & Dutta, P (2014) . Regulating micro finance institutions in South Asia: Issues and challenges with special reference to India, Vinimaya (NIBM), Vol. XXX5, no 1, s-24.
2. Sarma, M. K. & Goswami, S. (2014). Management of guest delight in hotels: an exploratory study, Vision: Journal of Business Perspective (Sage Publication), 18 (1), 29-45.

Courses offered in Post Graduate Diploma in Tourism management :

First Semester

Course Code	Course Title	Cr.
TM 430	Fundamentals of Tourism	3
TM 431	Destination Geography, History and Heritage	3
TM 432	Management Fundamentals	2
TM 433	Tour Guiding Skills	3
TM 434	Soft Skills and Personality Development	3
TM 435	Term Paper and Tour Reports	2
	CBCT -I	3
	CBCT- II	3

Second Semester

Course Code	Course Title	Cr.
TM 440	Tour Operations and Travel Agency Management	3
TM 441	Computerized Reservation System	2
TM 442	Finance and Accounting for Tourism	3
TM 443	Tourism Marketing	2
TM 444	Tourism Entrepreneurship	3
TM 445	Hospitality Management	2
TM 446	Project and Tour report	2
TM 447	Internship	2
	CBCT -III	3

For more information one can visit the departmental website http://www.tezu.ernet.in/dba/new/

CHEMICAL SCIENCES
(Year of Establishment: 1997)

The Department was established in the year 1997 with the objectives of providing a broad training to the students in various disciplines related to Chemical Sciences and reach out to the society. The Department is offering M.Sc. programme in Chemistry, Integrated M.Sc. in Chemistry, Integrated B.Sc. B.Ed. in Chemistry, M. Tech. in Polymer Science & Technology and Ph.D. programme in Chemistry. The faculty members are actively involved in advanced research programmes in the areas of catalysis, polymer, nanocomposites, drug delivery, bioinorganic chemistry, surfactant systems, water purification technique, synthetic organic chemistry, theoretical chemistry and green chemistry.

Programmes offered:

1. Integrated B.Sc. B.Ed. in Chemistry.
2. Integrated M.Sc. in Chemistry.
3. M.Sc. in Chemistry.
4. M. Tech. in Polymer Science and Technology.
5. Ph.D. in Chemistry.

Faculty and Areas of Interest:

Professors	
*Dolui, S.K., Ph.D. (IITKgp)	*Fibre Reinforced Plastic, Self Reinforced Plastic, Water Based Coating and Adhesive, Diffusion of Small Molecule Through Plastic.*
*Islam, N.S., Ph.D. (NEHU)	*Synthetic Inorganic Chemistry and Biomimetic Chemistry of Transition Metals, Catalysis.*
*Maji, T.K., Ph.D. (CU)	*Grafting of Fibres, Rubber Processing, Reaction Engineering, Emulsion Polymer, Textile Finishing.*
*Dutta, R.K., Ph.D. (NEHU)	*Surfactants and Micelles, Water Purification.*
*Karak, N., Ph.D. (IITKgp)	*Synthesis of Advanced Polymers, Polymer Nanocomposites and Nanomaterials.*
*Deka, R.C., Ph.D. (NCL, Pune)-HoD	*Theoretical Chemistry, Catalysis and Drug Design.*
Associate Professors	
*Borah, R., Ph.D. (NEIST)	*Synthesis of Bioactive Molecule, Development of Green Methodologies for Organic Transformation.*
*Thakur, A.J., Ph.D. (NEIST)	*Heterocyclic Chemistry, Organic Synthesis and Molecular Container Chemistry.*
*Phukan, A.K., Ph.D. (HU)	*Theoretical Inorganic and Organometallic Chemistry.*
Assistant Professors	
*Puzari, P., Ph.D. (IITG)	*Physical Chemistry, Biosensor.*
Bania, K.K., Ph.D. (TU)	*Heterogeneous Catalysis.*
*Bharali, P., Ph.D. (IICT, Hyderabad),	*Inorganic Materials, Catalysis, Adsorption.*
*Gogoi, N., Ph.D. (IITB)	*Molecular Magnet, Functional Metal Organic Framework.*
*Sarma, B., Ph.D. (HU)	*Organic Structural Chemistry, Crystal Engineering and Heterogeneous Nucleation.*
*Das, S.K., Ph.D. (CDRI,Lucknow & JNU)	*Synthetic organic chemistry.*
*Bora, U., Ph.D. (NEIST)	*Synthetic Organic Chemistry.*
Assistant Professor (Adhoc)	
Mahanta., S.P., Ph.D. (HU)	*Physical Chemistry, Supramolecular Chemistry.*
Inspire Faculty	
$ Pratihar S., Ph.D. (IITKgp)	*Inorganic Chemistry, Organometalic Chemistry.*

*** Recognized Supervisor $ Recognized Associate Supervisor**

LEGENDS: ***CU****-Calcutta University,* ***HU****- University of Hyderabad,* ***TU****-Tezpur University,* ***NEIST****-North East Institute of Science & Technology- Jorhat,* ***IITKgp*** *- Indian Institute of Technology- Kharagpur,* ***IITB****- Indian Institute of Technology- Bombay,* ***IITG****- Indian Institute of Technology- Guwahati,* ***NEHU****- North Eastern Hill University- Shillong,* ***JNU****- Jawaharlal Nehru University- Delhi,* ***IICT****- Indian Institute of Chemical Technology- Hyderabad,* ***NCL****- National Chemical Laboratory- Pune,* ***CDRI****- Central Drug Research Institute- Lucknow,* ***HoD****- Head of the Department.*

Facilities:

In addition to the laboratory facilities required for post graduate level studies in Chemical Sciences, the Department is equipped with sophisticated instrumentation facilities, like FT-IR spectrophotometer, CHN Analyzer, Thermal analyzer, UV-Visible spectrophotometer, Universal testing machine (UTM), Atomic absorption spectrophotometer, Polarizing microscope, Computational facilities etc. Besides these, the University has central instrumentation facilities of Scanning electron microscope, 400 MHz Nuclear Magnetic Resonance spectrophotometer, GC-MS, ICP-AES, GPC, HPLC, GC etc.

Award

The highest scorer among the students of the department is awarded with the Applied Chemistry Education Award.

Research Activity

No. of papers published in the year 2014 (up to December): **126**
No. of ongoing research projects : **14**

The Department of Chemical Sciences is a UGC SAP Department.

Selected publications

1. Dutta, R. & Pujari, P., Amperometric biosensing of organophosphate and organocarbomate pesticides utilizing polypyrrole entrapped acetylcholinesterase electrode, *Biosensors and Bioelectronics*, **52** (2014), 166-172.
2. Deka, P., Deka. R. C., Bharali, P., In situ generated copper nanoparticle catalyzed reduction of 4– nitrophenol, *New Journal of Chemistry* **38** (2014), 1789– 1793.

Other relevant information

The Department has received financial assistance under UGC-SAP and DST-FIST special grants for strengthening teaching, research and training.

Courses offered in M. Sc. in Chemistry:

First Semester

Course Code	Course Title	Cr.
CH 401	Principles of Inorganic Chemistry	3
CH 402	Principles of Organic Chemistry	3
CH 403	Chemical and Statistical Thermodynamics	3
CH 404	Quantum Chemistry and Chemical Bonding	3
CH 405	Laboratory Course in Organic Chemistry	6
	CBCT-I	3

Second Semester

Course Code	Course Title	Cr.
CH 408	Chemistry of Transition Elements	3
CH 409	Organic Reactions and Mechanism	3
CH 410	Chemical Dynamics and Electrochemistry	3
CH 411	Principles and Applications of Spectroscopy	3
CH 412	Laboratory Course in Inorganic Chemistry	6
	CBCT-II	3

Third Semester

Course Code	Course Title	Cr.
CH 501	Bio-Organic Chemistry	3
CH 502	Physical Chemistry of Surface and Condensed Systems	3
CH 503	Special Topics in Inorganic Chemistry	3
CH 504	Analytical Techniques	3
CH 505	Laboratory Course in Physical Chemistry	6
	CBCT-III	3

Fourth Semester

Course Code	Course Title	Cr.
CH 506/507/508	Elective -I	3
CH 509/510/511	Elective -II	3
CH 512/513/514 /515/516	Elective -III	3
CH 517	Project Work	9

Elective –I : Any one from the following group

Course Code	Course Title	Cr.
CH 506	Catalysis (Physical)	3
CH 507	Bio-inorganic Chemistry (Inorganic)	3
CH 508	Methods in Organic Synthesis (Organic)	3

Elective –II : Any one from the following group

Course Code	Course Title	Cr.
CH 509	Polymer Chemistry(Physical)	3
CH 510	Organometallic Chemistry (Inorganic)	3
CH 511	Heterocyclic Compounds and Medicinal Applications (Organic)	3

Elective –III : Any one from the following group

Course Code	Course Title	Cr.
CH 512	Chemistry of Materials	3
CH 513	Organic Solid State Chemistry	3
CH 514	Biomolecular Chemistry	3
CH 515	Environmental and Green Chemistry	3
CH 516	Computational Chemistry and Numerical Analysis	3

Courses offered in M. Tech. in Polymer Science and Technology:

First Semester

Course Code	Course Title	Cr.
PT 501	Introduction to Polymer Science	3
PT 502	Industrial Polymers	3
PT 503	Polymer Characterization and Analysis	3
PT 504	Polymer Reaction Engineering and Reactor Design	3
PT 505	Fundamentals of Chemical Engineering	3
PT 506/ 507/508	Elective -I	3
PT 509	Polymer Synthesis and Analysis Laboratory	3
	CBCT-I	3

Second Semester

Course Code	Course Title	Cr.
PT 510	Processing and Fabrication of Polymers	3
PT 511	Polymer Rheology and Morphology	3
PT 512	Rubber Science and Technology	3
PT 513/ 514	Elective -II	3
PT 515/ 516	Elective –III	3
PT 517	Polymer Processing and Testing Laboratory	3
	CBCT-II	3

Third Semester

Course Code	Course Title	Cr.
PT601/602 /603/604	Elective –IV	3
PT 605	Project –I	9
	CBCT-III	3

Fourth Semester

Course Code	Course Title	Cr.
PT 606	Project – II	12

Elective – I : Any one from the following group

Course Code	Course Title	Cr.
PT 506	Paints and Surface Coating Technology	3
PT 507	Fiber Science and Technology	3
PT 508	Production of Polymer Raw Materials	3

Elective– II : Any One from the following group

Course Code	Course Title	Cr.
PT 513	Polymer Composites and Blends	3
PT 514	Conducting Polymer	3

Elective–III : Any one from the following group

Course Code	Course Title	Cr.
PT 515	Polymeric Biomaterials	3
PT 516	Chemical Computation	3

Elective– IV : Any One from the following group

Course Code	Course Title	Cr.
PT 601	Environmental Engineering and Polymer Waste Management	3
PT 602	High Performance Polymers	3
PT 603	Computer Aided Design	3
PT 604	Nanomaterials and Nanocomposites	3

Courses offered in Integrated M. Sc. in Chemistry:

First Semester

Course Code	Course Title	Cr.
PI 101	Physics-I	3
CI 101	Chemistry-I	4
BI 101	Biology-I	3
MI 101	Mathematics-I	3
	CBCT - I	3
	CBCT - II	3

Second Semester

Course Code	Course Title	Cr.
PI 102	Physics-II	3
CI 102	Chemistry-II	4
BI 102	Biology-II	3
MI 102	Mathematics-II	3
	CBCT - III	3
	CBCT - IV	3
NS 102	NSS	2

Third Semester

Course Code	Course Title	Cr.
CI 201	Chemistry-III (For non - Chemistry Majors)	3
CI 203	Physical Chemistry -I	3
CI 205	Organic Chemistry -I	3
CI 207	Inorganic Chemistry -I	3
CI 209	Chemistry Laboratory -I	3
MI 211	Numerical Methods and Integrals (Common Paper)	3
PI 211	Quantum Physics	3
	CBCT -V	3

Fourth Semester

Course Code	Course Title	Cr.
CI 202	Chemistry -IV (For non - Chemistry Majors)	3
CI 204	Physical Chemistry -II	3
CI 206	Organic Chemistry -II	3
CI 208	Inorganic Chemistry -II	3
CI 210	Chemistry Laboratory -III	3
MI 212	Introductory Statistics (Common Paper)	3
PI 216/ BI 224	Thermodynamics and Optics / Ecology and Environmental Biology	3/3
	CBCT - VI	3

Fifth Semester

Course Code	Course Title	Cr.
CI 301	Physical Chemistry – III	3
CI 303	Organic Chemistry -III	3
CI 305	Inorganic Chemistry -III	3
CI 307	Quantum Chemistry	3
CI 309	Chemistry Laboratory -III	4

Sixth Semester

Course Code	Course Title	Cr.
CI 302	Physical Chemistry -IV	3
CI 304	Organic Chemistry -IV	3
CI 306	Inorganic Chemistry -IV	3
CI 308	Principles and Applications of Spectroscopy	3
CI 310	Chemistry Laboratory - IV	4

Seventh Semester

Course Code	Course Title	Cr.
CI 401	Principles of Inorganic Chemistry	3
CI 402	Principles of Organic Chemistry	3
CI 403	Chemical and Statistical Thermodynamics	3
CI 404	Quantum Chemistry and Chemical Bonding	3
CI 405	Laboratory Course in Organic Chemistry	6
	CBCT -VII	3

Eighth Semester

Course Code	Course Title	Cr.
CI 408	Chemistry of Transition Elements	3
CI 409	Organic Reactions and Mechanism	3
CI 410	Chemical Dynamics and Electrochemistry	3
CI 411	Principles and Applications of Spectroscopy	3
CI 412	Laboratory Course in Inorganic Chemistry	6
	CBCT -VIII	3

Ninth Semester

Course Code	Course Title	Cr.
CI 501	Bio-Organic Chemistry	3
CI 502	Physical Chemistry of Surface and Condensed Systems	3
CI 503	Special Topics in Inorganic Chemistry	3
CI 504	Analytical Techniques	3
CI 505	Laboratory Course in Physical Chemistry	6
	CBCT -IX	3

Tenth Semester

Course Code	Course Title	Cr.
CI 506/507 /508	Elective -I	3
CI 509/510 / 511	Elective -II	3
CI 512/513 /514/515/516	Elective -III	3
CI 517	Project Work	9

Elective –I : Any one from the following group

Course Code	Course Title	Cr.
CI 506	Catalysis (Physical)	3
CI 507	Bio-inorganic Chemistry (Inorganic)	3
CI 508	Methods in Organic Synthesis (Organic)	3

Elective –II : Any one from the following group

Course Code	Course Title	Cr.
CI 509	Polymer Chemistry (Physical)	3
CI 510	Organometallic Chemistry (Inorganic)	3
CI 511	Heterocyclic Compounds and Medicinal Applications (Organic)	3

Elective –III : Any one from the following group

Course Code	Course Title	Cr.
CI 512	Chemistry of Materials	3
CI 513	Organic Solid State Chemistry	3
CI 514	Bio Molecular Chemistry	3
CI 515	Environmental and Green Chemistry	3
CI 516	Computational Chemistry and Numerical Analysis	3

Course offered in Integrated B. Sc. B. Ed. in Chemistry

 # The course structure and detail syllabi will be made available in the university web site.

For more information one can visit the Departmental website http://www.tezu.ernet.in/dcs

CIVIL ENGINEERING
(Year of Establishment: 2009)

The Department of Civil Engineering of the Tezpur University was established in the year 2009 under the School of Engineering for offering B. Tech. Degree. Ph.D. progamme was initiated in winter, 2010. The Department aims to provide quality educational, research and professional experiences that enable our graduates to become leaders in their professional careers, to pursue excellence in research and to serve the profession, community and nation and to be competitive in the international scene.

Programmes offered

1. B. Tech. in Civil Engineering.
2. Ph. D.

Faculty and Areas of Interest:

Associate Professor	
*Das, U. K., Ph.D. (GU)-HoD	*Geotechnical Engineering.*
Assistant Professors	
Saikia, A., M. Tech. (IITKgp)	*Geotechnical Engineering.*
*Ahamad, K.U., Ph.D. (IITG)	*Environmental Engineering.*
*Sil, B.S., Ph.D. (NIT, Silchar) (on lien)	*Water Resources Engineering.*
Narzary, B.K., M. Tech. (IITG)	*Transportation Engineering.*
Sonowal, D.B., M. Tech. (IITR)	*Structural Engineering.*
Deka, S., Ph.D. (IITG)	*Geotechnical Engineering.*
Bharali, J. D., M. Tech. (IITG)	*Transportation Engineering.*
Das, A., ME (IISc.)	*Structural Engineering.*

***Recognized Supervisor**

*LEGENDS: **GU**-Gauhati University, **IITKgp**- Indian Institute of Technology, Kharagpur, **IITG**- Indian Institute of Technology, Guwahati, **NIT**-National Institute of Technology, **IITR**- Indian Institute of Technology, Roorkee , **IISc**– Indian Institute of Science, Bangalore, **HoD**- Head of the Department.*

Facilities

The Department has the following Laboratory facilities

1. **Computational Laboratories**
   - Matlab and Simulink R2011b
   - Plaxis 2D
   - Civil FEM for Ansys, version 12.1
   - Sap 2000
   - ETABS version 9
   - AutoCAD
2. **Core Departmental Laboratories**
   - Geotechnical Lab
   - Surveying Lab
   - Water Resources Lab
   - Environmental Engg Lab
   - Structural Lab
   - Transportation Lab

Library Facilities:

The central library has subscribed number of international and national journals of reputed publishers.

Research Activity:

No. of papers published in the year 2014 (up to September) : 8

Department has already started research activity and has two Ph.D. scholars.

Selected publications:

1. Saikia, A., and Das, U. K., Analysis and Design of Open Trench Barriers in Screening Steady State Surface, Earthquake Engineering and Engineering Vibration. Vol. 13, No. 3 , 2014, pp 545-554.

2. Saikia, A. Numerical study on screening of surface waves using a pair of softer backfilled trenches, Soli Dynamics and Earthquake Engineering, Vol. 65 (October), 2014, p 206-213.

COMMERCE
(Year of Establishment 2013)

The Department of Commerce was established in the year 2013 under the School of Management Sciences. The Department offers the Integrated M. Com. Programme. The programme is designed to provide the basis for developing the skills necessary to face the challenges of job market.

Programme Offered:

1. Integrated Master of Commerce (Int. M. Com.)
with option of lateral exit on successful completion of six semesters with B. Com (Hons) degree and lateral entry in the Seventh Semester (subject to fulfillment of eligibility criteria) for the M. Com. Degree.
Admission into the Autumn Semester 2015 is only for the B. Com (Hons) module. Admission into the M. Com module will begin from Autumn Semester 2017.

Faculty

The faculty for the programme will comprise of full time members engaged under the Department of Commerce. However, till the time, the Department of Commerce is fully equipped it shall run with the assistance of faculty members of the Department of Business Administration as well as other relevant departments. Besides, guest faculty members with adequate experience will be engaged to teach specialized courses.

Special Feature of the Programme

The course structure supports the process of competency building of the students in attaining success in NET/SET and other competitive examinations that the pass outs may appear in, and the course structure takes care of both practical and theoretical dimensions. Moreover, possible care has been taken to ensure that the students acquire relevant skills and knowledge expected of a successful graduate in case anyone opts for lateral exit after completion of the sixth semester with a required B. Com. (Hons.) degree, enabling him/her to pursue any professional programme of his/her choice. This course structure attempts to ensure that the students are equipped with necessary soft and behavioural skills, which are expected to distinguish this programme from the typical B. Com. programmes usually offered. The pass outs of the Integrated M. Com. Programme are expected to fulfill all the requirements of careers in teaching, research, industry and consultancy, apart from becoming a self-employed professional or a successful entrepreneur.

Courses offered in Integrated M. Com. :

First Semester

Course Code	Course Title	Cr.
IC 101	English Comprehension Skill	3
IC 102	Business Organization	3
IC 103	Business Environment	3
IC 104	Economics – I	3
IC 105	Financial Accounting – I	3
IC 106	Business Regulatory Framework -I	3

Second Semester

Course Code	Course Title	Cr.
IC 121	Economics – II	3
IC 122	Principles and Practice of Management	4
IC 123	Financial Accounting – II	4
IC 124	Business Mathematics- I	4
ES 102	Elementary Environmental Science	3

Third Semester

Course Code	Course Title	Cr.
IC 201	Business Regulatory Framework -II	3
IC 202	Business Mathematics - II	4
IC 203	Cost Accounting	3
IC 204	Corporate Accounting - I	3
IC 205	Functional Communicative Skill	3
IC 206	Inter-Personal Skills - I	3

Fourth Semester

Course Code	Course Title	Cr.
IC 221	Basic Statistics	4
IC 222	Indirect Taxes	4
IC 223	Fundamentals of Insurance	4
IC 224	Banking Laws and Practice	4
IC 225	Corporate Accounting -II	4

Fifth Semester

Course Code	Course Title	Cr.
IC 301	Company Law	2
IC 302	Business Finance	3
IC 303	Corporate Accounting -III	4
IC 304	Income Tax – Law and Practice	4
IC 305	Preparing a Business Plan	4
IC 306	Inter -Personal Skills - II	3

Sixth Semester (Any One of the following Two Groups)

Group –A
Accounting & Taxation

Course Code	Course Title	Cr.
IC 321	Computer and Its Application in Accounting and Taxation	4
IC 322	Auditing	3
IC 323	Management Accounting	4
IC 324	Public Finance	4
IC 325	Tax Planning and Procedures	4

Group -B
Banking & Finance

Course Code	Course Title	Cr.
IC 341	Computer and Its Application in Banking and Finance	4
IC 342	Indian Financial Market and Financial System	3
IC 343	Financial Services	4
IC 344	Banking Regulatory Framework	4
IC 345	Credit and Risk Management in Banks	4

Seventh Semester

Course Code	Course Title	Cr.
IC 501	Organizational Theory and Behaviour	4
IC 502	Macro- Economics	4
IC 503	Statistics for Business Decisions	4
IC 504	Corporate Governance	4
IC 505	International Business	4

Eighth Semester

Course Code	Course Title	Cr.
IC 521	Human Resource Management	4
IC 522	Marketing Management	4
IC 523	Managerial Economics	4
IC 524	Operations Research	4
IC 525	Methodology for Business Research	4

Ninth Semester

Course Code	Course Title	Cr.
IC 601	Accounting Theory	4
IC 602	Corporate Financial Accounting and Reporting	4
IC 603	Strategic Management	4
IC 604	Management Information System	4
IC 605	Project Work	4

Tenth Semester

Course Code	Course Title	Cr.
IC 621	Financial Statement Analysis	4
IC 622	Strategic Financial Management	4
IC 623	Strategic Cost and Management Accounting	4
IC 624	International Finance	4
IC 625	Security Analysis and Portfolio Management	4

Students will be advised to take some Choice Based Credit Transfer (CBCT) courses in some of the semesters as per University rules.

For more information one can visit the Departmental website http://www.tezu.ernet.in/

COMPUTER SCIENCE AND ENGINEERING

(Year of Establishment: 1994)

The Department of Computer Science and Engineering is one of the oldest Departments of the University. The Department has been recently recognized as a Centre of Excellence in Machine Learning and Big Data Analytics by MHRD, Government of India under FAST. The Department is also recognized by UGC under UGC's Special Assistance Programme (SAP DRS, Phase-II). During 2005-2009 the Department received support from the Department of Science and Technology (DST), Govt. of India under its FIST programme. The UG (B. Tech. CSE) and PG (MCA and M. Tech. (IT)) programme of the Department are approved by the AICTE. Eighteen students of M. tech. (IT) programme receive AICTE's GATE Scholarship. In addition to the academic programmes at the UG and PG levels, the Department has been carrying out active research in the fields of computational theory, computer networks, network security, mobile computing, soft computing & data mining, natural language processing, workflow management, qualitative spatial reasoning, web services, rehabilitation robotics, pattern recognition, bioinformatics, image processing algorithms, computational geometry, machine learning and remote sensing and image analysis

Currently, the Department has five sponsored research projects including UGC SAP DRS /CoE / MHRD worth over Rs. 6.05 crore.

Programmes offered

1. B. Tech. in Computer Science and Engineering.
2. M. Tech. in Information Technology.
3. Master of Computer Application (MCA)
4. Ph. D.

Faculty and Areas of Interest :

Professors	
*Dutta, M., Ph.D. (IITK)	*Optimization, Computational Theory.*
*Saikia,D.K., Ph.D. (IITKgp) -*On lien as Director, NIT, Meghalaya*	*Networks, Mobile Computing.*
*Bhattacharyya, D. K. Ph.D. (TU), Dean-SoE	*Data Mining, Cryptography.*
*Sinha, S.K., Ph.D. (TU)	*Workflow Automation, Web Theory.*
*Hazarika, S.M., Ph.D. (Leeds) -HoD	*Knowledge Representation & Reasoning, Rehabilitation Robotics.*
*Sharma, U., Ph.D. (TU)	*Natural Language Processing.*
*Sarma, N., Ph.D. (IITG)	*Wireless Networks and Mobile Computing.*
Associate Professors	
*Saharia, S., Ph.D. (TU)	*Pattern Recognition.*
*Borah, B., Ph.D. (TU)	*Data Mining.*
*Nath, B., Ph.D. (TU)	*Data Mining.*
Satapathy, S.S., Ph. D. (TU)	*Computational Biology and Bioinformatics, Wireless Sensor Network.*
Assistant Professors	
Singh, S.I., MCA (MU)	*Service Oriented Systems, Trust and Reputation.*
Singh, L.B., M. Tech. (TU)	*Object Recognition, Trust and Reputation.*
*Sarmah, R., Ph.D. (TU)	*Data Mining, Bioinformatics, Image Processing.*
Deka, S. K., M. Tech. (TU)	*Cognitive Radio Network, Operating System.*
Boro, D., M. Tech. (TU)	*Network Security.*
Karmakar, A., Ph.D. (ISI, Kolkata)	*Algorithms, Computational Geometry.*
Nath, S., M. Tech. (TU)	*Speech Processing.*
*Patra, S., Ph. D. (JU)	*Pattern Recognition Machine Learning and Remote Sensing Image Analysis.*
Bhuyan, Z., M. Tech. (TU)	*Knowledge Representation and Reasoning.*
Kalita, S., M. Tech. (TU)	*Knowledge Representation and Reasoning.*

***Recognized Supervisor**

LEGENDS: ***TU****-Tezpur University,* ***MU****-Manipur University, ,* ***JU****- Jadavpur University,* ***ISI****- Indian Statistical Institute,, Kolkata,* ***IITK****-Indian Institute of Technology, Kanpur,* ***IITKgp****- Indian Institute of Technology, Kharagpur,* ***IITG****- Indian Institute of Technology, Guwahati,* ***Leeds****- University of Leeds, England,* ***SoE****- School of Engineering,* ***HoD****-Head of the Department.*

Facilities

The Department has several state-of-the-art computer laboratories, viz :
* Basic Programming Laboratories
* Software Engineering Laboratory
* Hardware Laboratory
* Mobile Computing Laboratory

The Department houses the following Research / Special Computing Facilities :
* Network Security Laboratory
* Biomimetic and Cognitive Robotics Laboratory
* Natural Language Processing Laboratory
* Cognitive Radio Network Laboratory
* Network Laboratory
* Malware Research Laboratory

Departmental Library:
The Department has a library with a collection of more than 1400 book volumes in the field of computer science and information technology. The library also receives 8 international and 3 national journals in the field of computer science in addition to those at the central library. The digital libraries of ACM, IEEE, are accessible to the Department.

Research Activity:
No. of papers published in last one year (Upto September): Journal -38, Conference -15.

Selected publications:

1. N. Hoque, D.K. Bhattacharyya and J.K. Kalita, 'MIFS-ND: A mutual information-based Feature Selection Method in the Int'nl Journal of Expert Systems with Applications (ESWA). vol 41, pp 6371-6385 Elsevier, 2014 (Impact factor: 2.254).

2. S. Patra and L. Bruzzone, "A novel SoM– SVM based active learning technique for remote sensing image classification", IEEE Transactions on Geoscience and Remote Sensing , March 2014, DOI: 10.1109/ TGRS. 2014, 2305516, (Impact factor: 3.467).

Courses offered in M. Tech. in Information Technology:

Core Courses

Course Code	Course Title	Cr.
CS 531	Object Oriented Programming and Design	5
CS 601	Design and Analysis of Algorithms	3
CS 634	Selected Topics in Computer Networks	4
IT 604	Term Project - I	8

Course Code	Course Title	Cr.
IT 605	Term Project - II	16
IT 610	Advanced Database System	4
IT 611	Distributed Systems	3

Elective Courses

Course Code	Course Title	Cr.
CS 424	Formal Language and Automata	3
CS 502	System Software	3
CS 504	Natural Language Processing	3
CS 505	Software Engineering	4
CS 507	Computer Networks	4
CS 508	Database Management	5
CS 509	Data Communication	4
CS 522	Computer Graphics	4
CS 523	Enterprise Resource Planning	3
CS 524	Theory of Computation	3
CS 525	Artificial Intelligence	3
CS 528	Digital Signal Processing	4
CS 529	Embedded Systems	4
CS 532	Compiler Design	4
CS533	Computational Geometry	3
CS 602	Image Processing	3
CS 606	Computer Architecture and Parallel Processing	3
CS 607	Optimization Technique	3

Course Code	Course Title	Cr.
CS 610	Bioinformatics	3
CS 621	Mobile Computing	4
CS 623	Randomized Algorithms	3
CS 624	Web Technology	4
CS 625	Intelligent Assistive Systems	3
CS 725	Knowledge Representation and Reasoning	4
CS 727	Formal Verification	4
CS 731	Data Mining in Security	4
IT 503	Multimedia Systems	4
IT 504	E-Commerce	3
IT 506	Logic Programming	3
IT 507	Computer Security and Cryptography	3
IT 509	Data Mining and Data Warehousing	4
IT 510	Advanced Operating Systems	4
IT 518	Graph Theory	4
IT 521	Programming and Data Structure	4
IT 522	Computer Architecture	4
IT 523	Discrete Mathematics	3

Courses offered in Master of Computer Application:

Core Courses

Course Code	Course Title	Cr.
CS 403	File Structures	2
CS 404	Programming & Problem Solving	5
CS 405	Discrete Mathematics	3
CS 406	Digital Logic	4
CS 407	Information and Communication Technology	4
CS 408	Data Structures	5
CS 409	Comp. Organization and Architecture	5
CS 502	System Software	3

Course Code	Course Title	Cr.
CS 504	Operating System	4
CS 505	Software Engineering	4
CS 507	Computer Networks	4
CS 508	Database Management	5
CS 509	Data Communication	4
CS 514	Minor Project	8
CS 515	Major Project	16

Elective Courses

Course Code	Course Title	Cr.
CS 421	Graph Theory	3
CS 422	Numerical Methods	4
CS 423	Graphical User Interface Programming	3
CS 424	Formal Language and Automata	3
CS 522	Computer Graphics	4
CS 523	Enterprise Resource Planning	3
CS 524	Theory of Computation	3
CS 525	Artificial Intelligence	3
CS 526	Management Information Systems	3
CS 528	Digital Signal Processing	3
CS 529	Embedded Systems	4
CS 530	Social and Professional Issues in Computing	3
CS 531	Object Oriented Programming and Design	5
CS 532	Compiler Design	4
CS 601	Design and Analysis of Algorithms	3
CS 602	Image Processing	3
CS 604	Optimization Techniques	3
CS 605	Simulation and Modeling	4

Course Code	Course Title	Cr.
CS 606	Computer Architecture and Parallel Processing	3
CS 609	Geographic Information Systems	3
CS 610	Bioinformatics	3
CS 621	Mobile Computing	4
CS 622	Software Testing Quality Assurance and Maintenance	4
CS 623	Randomized Algorithms	3
CS 624	Web Technology	4
CS 625	Intelligent Assistive Systems	3
IT 503	Multimedia Systems	4
IT 504	E-Commerce	3
IT 507	Computer Security and Cryptography	3
IT 509	Data Mining and Data Warehousing	4
IT 611	Distributed Systems	3
BM 421	Accounting and Financial Management	3
BM 501	Foundation of Management	3
BM 504	Managerial Economics	4
MS 405	Probability and Statistics	4

For more information one can visit the departmental website http://www.tezu.ernet.in/dcompsc

CULTURAL STUDIES
(Year of Establishment: 1996)

Established in 1996, the Department of Cultural Studies is one of the few departments in the country devoted exclusively to the academic pursuit of Cultural Studies. Cultural Studies has evolved into a vibrant interdisciplinary approach in the understanding of society, culture and expressive forms associated with human behaviour across a wide range of disciplinary engagements. India is fast emerging as an important location where methods evolved in Cultural Studies are used to interrogate disciplinary approaches in an attempt to promote an understanding of various issues like ethnicity, migration, national and nationalistic assertion, gender and society, media generated cultural forms, environment and development and emerging lifestyle patterns. The Department of Cultural Studies at Tezpur University mediates global concerns and theoretical approaches of the discipline with issues that are of local importance and promotes an understanding of the rich cultural heritage and the ingrained plural nature of the region, the folk and oral inheritance and ethnic and cultural assertions amongst others. PhD scholars in the Department are drawn from an array of disciplines and include a number of UGC JRFs and NET qualified candidates.

Programmes offered

1. M. A. in Cultural Studies (Modular)
2. Ph. D.

Faculty and Areas of Interest :

Professors	
*Mahanta, P.J., Ph.D. (GU), Dean-SHSS	*Cultural History, Old Assamese Literature, Performing Arts.*
*Dutta, S.K., Ph.D. (VB)	*Folklore Studies, Assamese Language and Culture.*
Associate Professor	
*Nath, D.P., Ph.D. (RGU)-HoD	*Gender Studies, Comparative Literature, Translation, Critical Theory.*
Assistant Professors	
# Goswami, M., Ph.D. (TU)	*Sanskrit Poetics, Indian Classical Performing Arts.*
*Dutta, P., Ph.D. (TU)	*Heritage Studies, Folklore Studies, New Museology.*
*Konwar, J. G., Ph.D. (DU)	*Medical Anthropology, Anthropology of Food and Costume.*
Das, J.V., M.A. (TU)	*Cultural Communication, Development Communication, Epistemology of Communication Studies.*
Baruah, M., Ph.D. (TU)	*Gender Studies, Folklore Studies, Paremiology.*
Hashik, N.K., Ph.D. (UH)	*Performance Studies, Community Studies, Research Methodology.*

***Recognized Supervisor # Recognized Co- Supervisor**

LEGENDS: ***GU****-Gauhati University,* ***VB****- Visva-Bharati, Santiniketan,* ***RGU****- Rajiv Gandhi University, Itanagar,* ***TU****-Tezpur University,* ***HU****-University Hyderabad,* ***DU****-Dibrugarh University,* ***SHSS****- School of Humanities and Social Sciences,* ***HoD****-Head of the Department.*

Facilities

The Department has a well equipped seminar cum conference hall with projection facilities and audio-visual teaching aids and an archival centre cum edit suite. The student support infrastructure also includes the Pratibha Kath Hazarika Memorial Library and a cultural museum.

Research Activity

No. of papers published in the year 2012-13 (up to September): **32**
No. of ongoing research project: **3**
The Department of Cultural Studies is a UGC SAP Department.

Selected Publications

A. Papers

1. Nath, Debarshi Prasad, "Assam's Tale of Witch –hunting and Indigeneity" Economic and Political Weekly, Vol. XLI No.37, 2014.
2. Dutta, Parasmoni and Dutta, Minakshi, "The Assamese Films of Bhabendra Nath Saikia : Another Parallel Stream of Indian Cinema' Journal of Creative Communication, Sage Publication, 2013.

B. Books published from the Department

1. Konwar, J. G., Warp and Weft: Textile Tradition of the Bodos. Guwahati: Purbanchal Prakash, 2013.
2. Nath, D. P., Jacques Lacan and The French Feminists: Theory and Praxis. Guwahati: Purbanchal Prakash, 2013.
3. Mahanta, P. J. & Nath, D. P. (eds.) Cultural Studies: Perspectives from North East India. Guwahati: Purbanchal Prakash, 2013.
4. Nath, D. P., & Sarma, M. M., (ed), Lakshminath Bezbaruah: The Architect of Assam Literature : Issues of Nationalism and Beyond, Guwahati: Perfect Imagers, 2013.

Courses offered in M.A. in Cultural Studies :

First Semester

Course Code	Course Title	Cr.
CT 131	Introduction to Cultural Studies	3
CT 132	Cultural Studies and Allied Discipline	2
CT 133	Folklore and Culture- I	3
CT 134	Reading Culture -I	3
CT 135	Culture and Oral History	2
	CBCT - I	3

Second Semester

Course Code	Course Title	Cr.
CT 136	Introduction to Cultural Theory	2
CT 137	Performance and Culture	3
CT 138	Ethnicity and Nationalism	2
CT 139	Folklore and Culture -II	3
CT 140	Reading Culture- II	3
	CBCT- II	3

Third Semester

Course Code	Course Title	Cr.
CT 141	Methods of Cultural Studies	2
CT 142	Culture and Heritage	3
CT 143	Media and Culture	3
CT 144	Gender and Culture– I	3
CT 145	North East Studies	2
	CBCT - III	3

Fourth Semester

Course Code	Course Title	Cr.
CT 146	Dissertation	6
	CBCT– IV	3
	Elective -I	3
	Elective - II	3+3

Elective Courses –I
(Any One from the Following courses)

Course Code	Course Title	Cr.
CT 147	Culture, Heritage and Cyber Space	3
CT 148	Gender and Culture -II	3
CT 149	Film and Television Studies	3

Elective Courses –II
(Any Two from the following courses)

Course Code	Course Title	Cr.
CT 150	Cultural Tourism	3
CT 151	Cross - Cultural Studies : North East India and South East Asia	3
CT 152	Culture and Science	3
CT 153	Culture and Environment	3

For more information one can visit the departmental website http://www.tezu.ernet.in/dtcaf

CHANDRAPRABHA SAIKIANI CENTRE FOR WOMEN'S STUDIES
(Year of Establishment 2009)

Chandraprabha Saikiani Centre for Women's Studies (CSCWS), Tezpur University was established in the year 2009. The University Grants Commission (UGC), New Delhi approved the proposal no. F.No7-1/2012(WS) dated 6th of March 2012 for continuation of WSC at Tezpur University. The UGC has also revised the pattern of positions and financial assistance for WSC, Tezpur University. The centre supports redistribution of women power and control of resources in favour of women. The vision of Chandraprabha Saikiani Centre for Women's Studies, Tezpur University is to provide a platform and promote studies on women belonging to the diverse socio-cultural milieu of North- East India. The priority of CSCWS is to build a body of information and knowledge resource pool regarding women of this region. The Centre is running CBCT Courses from 2012.

Programmes offered

1. Post Graduate Diploma in Women's Studies.

Faculty and Areas of Interest :

Associate Professor	
Goswami, M., Ph.D. (TU) HoD	*Gender Studies, Critical Theory, Performance Studies.*
Research Associate	
Mahanta, M., Ph.D. (TU)	*Women's Studies, Women and Mental Health, Feminist Research Methodology*.

LEGENDS: ***TU***- *Tezpur University* , ***HoD*** -*Head of the Department.*

Research Activity:

Publication : Number of papers published (Journal & Books till 2014): 11

Courses offered in Post Graduate Diploma in Women's Studies:

First Semester

Course Code	Course Title	Cr.
WS 103	Women's Movement in India	4
WS 104	Introducing Women's Studies	4
WS 105	Women in Media	4
WS 106	Women and Health	4

Second Semester

Course Code	Course Title	Cr.
WS 107	Women's Studies and Research Methodology	4
WS 108	Women and Law	3
WS 109	Women and Development	3
WS 110	Project work/Dissertation	6

For more information one can visit the centre website http://www.tezu.ernet.in/wsc

EDUCATION

(Year of Establishment: 2014)

The Department of Education of the Tezpur University was established in the year 2014 under the School of Humanities and Social Sciences for offering Integrated B.Sc.B.Ed. and B.A.B.Ed. programme. The four year Integrated B. A./B.Sc.B.Ed. programme aims at producing prospective teachers with sound knowledge of the content of the degree major and pass course subjects and adequate knowledge, skills and orientation acquired through the study of the teacher education courses provided by a B.Ed. Programme.

Programmes offered

1. The Department teaches the Education courses of the Integrated B.A. B.Ed. and Integrated B.Sc. B.Ed. Programmes.
2. M. A. in Education.

Faculty and Areas of Interest :

Associate Professor	
Sharma, A., Ph.D. (DBRAU)	*Educational Administration, Planning and Financing, Curriculum Development, Educational Measurement and Evaluation, Special Education.*
Assistant Professors	
Sultana, Y., Ph.D. (AU)	*Language Education and Research Methodology.*
Padmavathy, R. D., M.Ed. (PU)	*Mathematics Education, Educational Psychology, Educational Technology-e-content Development, Research Methodology and Statistics in Education, Guidance and Counselling, Environmental Education.*
Sharma, H., Ph.D. (DAV)	*Method of Teaching, Physical Science and Biological Science, Educational Psychology, ICT in Education, Educational Administration, Guidance and Counselling.*
Chakrawarty, S., M.Ed. (RIE)	*Biological Science, Educational Psychology, Teacher Education, Elementary Education, Special Education, Guidance and Counselling.*
Pallai, P., Ph.D. (LU)	*Social Science Teaching, ICT in Education, Guidance and Counselling, Measurement and Evaluation, Educational Psychology.*

LEGENDS: ***DBRAU****– Dr. B. R. Ambedkar University, Uttar Pradesh,* ***AU****– Assam University, Silchar,* ***PU****– Pondicherry University,* ***DAV****—Devi Ahilya Vishwavidyalaya, Indore,* ***RIE****—Regional Institute of Education, Bhubaneswar,* ***LU*** *- Lucknow University .*

Facilities: The teaching support infrastructure includes a Psychological Laboratory and Educational Technology Laboratory.

Courses offered in M. A in Education:

First Semester

Course Code	Course Title	Cr.
MED 101	Philosophy of Education	4
MED 102	Psychology of Education	4
MED 103	Methodology of Educational Research	4
MED 104	Educational Technology	4
	CBCT -I	3

Second Semester

Course Code	Course Title	Cr.
MED 201	Sociology of Education	4
MED 202	Measurement and Evaluation in Education	4
MED 203	History and Contemporary Issues in Indian Education	4
	Optional (Any one)	
MED 204	i) Education Administration, Planning and Financing (ii) Special Education	4
	CBCT -II	3

Third Semester

Course Code	Course Title	Cr.
MED 301	Curriculum Studies	4
MED 302	Statistics in Education	4
MED 303	Teacher Education	4
Optional (Any One)		
MED 304	i) Educational Guidance and Counselling (ii) Open and Distance Learning	4
	CBCT -III	3

Fourth Semester

Course Code	Course Title	Cr.
MED 401	Comparative Education	4
MED 402	Principles and Techniques of Teaching	4
MED 403	Practical Work	4
MED 404	Dissertation	6
	CBCT -IV	3

For more information one can visit the departmental website http://www.tezu.ernet.in/dedu

ELECTRONICS AND COMMUNICATION ENGINEERING

(Year of Establishment: 1997)

The Department was started in 1997 as the Department of Electronics under the School of Science and Technology with an M. Tech. programme in Electronics Design and Technology. In August, 2004, the Department has started a new programme "M. Tech. in Bioelectronics" approved by the UGC under its innovative programmes Teaching and Research in interdisciplinary and emerging areas. This course is designed with interdisciplinary relevance aims at producing professionals in the fields of medical, food safety, agriculture, defense, biotechnology and biosensor industries. Both the M. Tech. programmes are recognized by the AICTE. In August 2006, the department was rechristened as the Department of Electronics and Communication Engineering under the School of Engineering.

From September 2012, the Department has started a career oriented programme "Advanced Diploma in Healthcare Informatics and Management" supported by the UGC.

The primary objective of the Department is to impart quality education, training and research at the undergraduate, postgraduate and doctoral levels in frontline areas of electronics and its derived Engineering and Technology.

It is a DST-FIST, DeitY – MIT and UGC-SAP supported Department.

Programmes offered

1. Advanced Diploma in Healthcare Informatics and Management.
2. B. Tech. in Electronics and Communication Engineering.
3. B. Tech in Electrical Engineering.
4. M. Tech. in Electronics Design and Technology.
5. M. Tech. in Bioelectronics.
6. Ph. D.

Faculty and Areas of Interest :

Professors	
*Dutta, J.C., Ph.D. (JU)-HoD	*Biosensors and Bioelectronics, Neuorobioengineering.*
*Bhuyan, M., Ph.D. (GU)	*Sensor Design, Image Processing, Machine Vision.*
*Sahu, P.P., Ph.D. (JU)	*Optical Networks and its Components, Wireless Communication.*
*Bhattacharyya, S., Ph.D. (DU)	*Microwave Antennas.*
Associate Professors	
*Sharma, S., Ph.D. (TU)	*MOSFET, Bioelectronic Device-ISFET, Vehicular Electronics.*
*Roy, S., Ph.D. (TU)	*Neuroengineering.*
*Deka, B., Ph.D. (IITG)	*Image Processing, Computer Vision, Compressive Sensing.*
Nath, V. K., Ph.D. (IITG)	*Signal and Image Processing.*
Assistant Professors	
Chutia, R., M. Tech. (TU)	*E-nose.*
Hazarika, D., M. Tech. (IITG)	*Signal Processing.*
Kakoty, N.M., Ph.D. (TU) (On lien)	*Robotics.*
Barua, R.K., M. Tech. (TU)	*VLSI*
Mondal, B., M. Tech. (TU)	*VLSI and MEMS Devices.*
Sonowal, D., M. Tech. (TU)	*Sensors.*
Bonjyotsna, A., M. Tech. (TU)	*Signal Processing.*
Kakoty, P., M. Tech. (TU)	*Intelligent Instrumentation.*
Sharma, A., M. E (AEC) (Ad-hoc)	*Power System Engineering.*

*** Recognized Supervisor**

*LEGENDS: **JU**-Jadavpur University, **GU**– Gauhati University, **DU**-Delhi University ,**TU**-Tezpur University, **IITG**- Indian Institute of Technology, Guwahati, **AEC**– Assam Engineering College, Guwahati, **HoD**-Head of the Department.*

Facilities

Basic Electrical Engineering Laboratory: The laboratory is equipped with DC Motor-Generator set, 3Ø Power factor Trainer Kits, Series Motor Panel Kits, Synchronous Panel Motors, Shunt Motors, various trainer kits and Measuring instruments. Experiments on Basic Electrical Engineering are conducted in this lab.

Basic Electronics Laboratory: The Laboratory is equipped with a number of analog trainer kits, digital trainer kits, DSOs, CROs, Function generators etc. Experiments on Switching Circuit and Digital Logic (SCDL), Biomedical Electronics (BE), Analog Electronics Devices & Circuit (AEDC), Integrated Circuits (IC), Electronic devices and circuits (EDC), Design of Digital Systems (DDS) are conducted in this lab.

Design and Prototyping Laboratory (Workshop): The laboratory is equipped with following machines: Lathe machine, drilling machine, milling machine, grinding machine, wielding machine, bending machine, spot wielding, wood planner, miter shop, hand grinder, power hack-saw, etc. Experiments on Physical and Industrial Design of Electronics Systems (PIDE) are conducted in this lab for M. Tech. students. This lab is also used for many hardware related project works of B. Tech. and M. Tech. programmes.

M. Tech Project Laboratory: There are number of computers equipped with software for computer simulation for different M. Tech. projects.

Computer Laboratory (Software): The laboratory is equipped with Pentium based PCs attached to LAN server and connected to the internet**.** There are up-to-date Circuit Simulator like MICROSIM, PCB layout, CPLD-FPGA Electronic Design Automation (EDA) software, High Performance Data acquisition- Control- Manipulation Software- GENIE Lab View, XILINX, ORCAD. Experiments on Data and Computer Networks (DCN), VLSI, Modelling and Simulation (MS), Design and Technology of Electronics Devices (DTED), and Advanced Programming Language (APL) are conducted in this lab.

Communication Laboratory: It is equipped with CRO, DSO, function generator, trainer kit, measuring instruments, spectrum analzer etc. Experiments on Principles of Communication (PC). Digital Communication (DC), Control System (CS) and Microprocessor lab are conducted in this lab.

Microwave Laboratory : It is equipped with Power meter, VSWR meter, DMM etc. and consists of setups for different microwave experiments.

DSP Laboratory: The lab is equipped with (i) Software and (ii) Hardware with DSP Kit (iii) FPGA Boards.

Computer Vision and Image Processing Laboratory: The laboratory is equipped with embedded Software and Hardware with FPGA Kits for computer vision and image processing.

Instrumentation Laboratory: The lab is equipped with temperature transducers – thermocouple, IC sensors, ti- channel temperature indicators, Load cell indicator, humidity sensor, sensor interfacing to PC, industrial type remote transmitter, PC based steeper motor, Servo motor driver, etc. it also includes CRO, FG various trainer kit and measuring instruments **(This lab is under MODROB, AICTE).**

Bioelectronics Laboratory: The lab is related with Robotics, vision development with lab view, E-nose, Insectronics, Device Simulator and a number of computers.

Neuroengineering Laboratory: The laboratory is equipped with a power lab system which includes instruments having capabilities of measuring and processing of ECG, EMG, EEG. It has no of computers, sensors, Robotics setups and various motors.

Optical Fibre Laboratory: Under MODROB, AICTE.

HIM Laboratory : This laboratory is equipped with computers for the students of Advanced Diploma in Healthcare Informatics and Management (ADHIM) programme under UGC's career oriented schemes.

Micro fabrication/MEMS Laboratory: The laboratory is equipped with PECVD, RIE, Photo Lithography unit, Thin Film depositor, oxidation furnace, clean room facility, etc.

Research Laboratory: This computer laboratory is exclusively for Ph.D. students. It includes:
1) Power Electronics Laboratory (Vehicular Electronics)
2) Microwave Engineering Laboratory
3) Wireless Communication Engineering Laboratory
4) E-nose Laboratory,
5) CVIP Laboratory
6) ICT Laboratory.

Research activities:
No. of papers published in the year 2014 (upto August): **26**

Research Areas:
1. Biosenors and Bioelectronics
2. Intelligent Instrumentation
3. Image and Signal Processing
4. Microwave
5. Vehicular Electronics
6. Chemical and Bioelectronic Sensors

Research Output:
Ph. D.
1. Completed : **14**
2. Ongoing : **22**

Nos. of completed research project :07 **Nos. of ongoing research project : 08**

Selected publications

1. Md Abdul Barik, Jiten Ch. Dutta, "Fabrication and Characterization of Junctionless Carbon Nanotube Field Effect Transistor for Cholesterol Detection" International Journal of Applied Physics Letters, 7 August, 2014. (This paper has been indexed by "Nature")

2. Barik Md Abdul , Manoj Kumar Sarma, C. R. Sarkar and Jiten Ch. Dutta. "Highly Sensitive Potassium– Doped Polypyrrole / Carbon Nanotube-Based Enzyme Field Effect Transistor (ENFET) for Cholesterol Detection". Applied biochemistry and biotechnology (Springer 2014): 1-11

Courses offered in M.Tech in Electronics Design and Technology:

Core Courses

Course Code	Course Title	Cr.
EL 516	Design of Fine Mechanics and Power Devices	4
EL 517	Physical and Industrial Design of Electronic Systems	4
EL 530	VLSI Design	4
EL 531	Design of Digital Systems	4
EL 538	Advanced Electronic Devices	3

Course Code	Course Title	Cr.
EL 521	Design and Technology of Electronic Devices	4
EL 523	Advanced Programming Language	5
EL 528	Seminar-II	1
EL 532	Intelligent Instrumentation	4
EL 601	M. Tech. Project (3rd and 4th Semester) dissertation	24

Elective Courses

Course Code	Course Title	Cr.
EL 533	Data Communication and Networks	4
EL 534	Modeling and Simulation	4

Course Code	Course Title	Cr.
EL 535	Information Systems	4
EL 536	Application Software	4

Courses offered in M. Tech. in Bioelectronics:

Core Courses

Course Code	Course Title	Cr.
BE 504	Neuroengineering	3
BE 506	Biomedical Image Processing	4
BE 509	Biomathematics	3
BE 510	Bioelectronics System and Controls	3
BE 511	Basic Bioelectronics Lab	4
BE 512	Advanced Bioelectronics Lab	4

Course Code	Course Title	Cr.
BE 514	Seminar	1
BE 515	Basic Bioelectronics	3
BE 516	Advanced Bioelectronics Devices	3
BE 517	Biomedical Signal Processing	4
BE 519	Bioinspired Systems and Engineering	3
BE 601	M. Tech. Dissertation (3rd and 4th Semester)	24

Elective Courses

Course Code	Course Title	Cr.
BE 507	Bioinformatics	4
BE 508	BioMEMS & Nanotechnology	4

Course Code	Course Title	Cr.
BE 513	Biomedical Electronics	4

For more information one can visit the departmental website http://www.tezu.ernet.in/delect

ENERGY
(Year of Establishment: 1996)

Department of Energy started in 1996, with an aim to produce manpower pool in the field of energy, develop new and efficient energy technologies, R & D and extension activities in diverse areas of energy. The department offers a two-year (four semesters) AICTE approved M. Tech. programme in Energy Technology, One year Post Graduate Diploma in Renewable Energy and Energy Management (under distance education mode) and Ph. D. in energy related areas. The thrust areas of research are Biomass energy, Solar energy, Energy-Environment interface, Energy Conservation and Management, Energy Efficiency, Climate Responsive Buildings, Hydrogen Energy, Fuel Cell and Rural Hybrid Energy. Apart from the teaching and research, the department also organizes training programmes, workshops and seminars in the relevant areas of energy. The department has received research support under Indo-UKIERI research collaboration. The Department has undertaken three International Collaborative research projects viz. i) Indo-UK ii) Indo-European and iii) Indo-Finland with National partners in the field of bioenergy. Research Scholars in the Department received Nehru-Fulbright Fellowship in 2013, CIMO fellowship at Abo Akademi University, Finland in 2013, ISCA young Scientist Award, Indo-French Sandwich Ph.D. Fellowship. Swarna Jayanti Puraskar award for the best paper of National Academy of Science, India, 2010.

Programmes offered

1. Post Graduate Diploma in Renewable Energy and Energy Management (Distance mode).
2. B. Voc. (Agriculture) Renewable Energy.
3. M. Tech. in Energy Technology.
4. Ph. D.

Faculty and Areas of Interest :

Professors	
*Deka, D., Ph.D. (TU) - HoD	*Biofuels, Biomass Assessment, Bioenergy and Environment.*
*Baruah, D.C., Ph.D. (PAU)	*Biomass Energy, Energy Management and Mathematical Modeling and Farm Mechanization.*
Associate Professor	
*Kataki, R., Ph.D. (TU)	*Energy and Environment, Biomass Energy.*
Assistant Professors	
Mahapatra, S., M.Tech. (JU)	*Biomass Gasification, Climate Responsive Buildings, Decentralized Energy Options, Energy conservation.*
Choudhury, P.K., M.Tech. (TU)	*Energy Conservation and Management, Integration of Renewable Energy Systems.*
#Kalita, P., Ph.D. (IITG)	*Fluid Mechanics, Heat Transfer, Biogas Technology, Circulation Fluidized Bed Combustion and Gasification.*
Kakati, B, K., Ph.D. (IITG), PDF (IC)	*Fuel Cell, Hydrogen Technology .*
Sarmah, N., Ph.D. (HW), PDF	*Solar Energy, Photovoltaics, Energy Systems.*

*** Recognized Supervisor # Recognized Co-Supervisor**

*LEGENDS: , **IITG**- Indian Institute of Technology-Guwahati, **PAU**-Punjab Agricultural University, **TU**- Tezpur University, **JU**- Jadavpur University, PDF– Post Doctoral Fellow, **IC**– Imperial College , London, **HW**– Heriot-Watt , Edinburgh, **HoD**- Head of the Department.*

Facilities

Laboratory

The Department is equipped with various equipments such as Gas Chromatograph, Computerized power meter, Bomb Calorimeter, Biomass gasifier system, Solar radiation measuring equipment, Wind speed direction measuring equipment, Wind electric generator, Briquetting Press, Single cylinder 4-stroke petrol engine Test Rig with electrical Dynamometer, Fibertech apparatus, Toxic Gas analyzer, Carbon-Hydrogen analyzer, UV-visible spectrophotometer, TOC Analyser, Petrol and Diesel Engine Test set-up, Hydrocarbon type Analyser, Pyrolyser, Adiabatic Bomb Calorimeter, TBP Apparatus, Duel Fuel Engine, Vacuum Distillation Apparatus, Microhydel test set-up, Research Radiometer, Solar thermal collector test set-up, Solar Dryer, Peristaltic Pump, Ultrasonicator, Programmable Muffle Furnace, Biodiesel Plant and various renewable energy systems.

Departmental Library
A good number of books, video cassettes and CDs on Energy and related areas are available for the students. A number of national and international journals related to different areas of energy are also being subscribed by Central Library of the University.

Scholarship
Ministry of New and Renewable Energy (MNRE), Government of India offers fellowship for M. Tech. and Ph. D. students under its National Renewable Energy Fellowship Schemes on the basis of GATE score. AICTE fellowships are also available for GATE qualified candidates. NEC fellowships are available for the students from North East regions. ONGC has also offered scholarship to M. Tech. student of the Department. UGC offers scholarship to SC/ST students.

Research Activity
No. of ongoing sponsored research projects: **07**
No. of papers published in referred Journals in 2014 –2015 (till January 2015): 37

Selected Publications

1. Bora P, Konwar L, J , Boro J, Phukan M, Deka D and Konwar B K. Hybrid biofuels from non-edible oils: A comparative standpoint with corresponding biodiesel. *Applied Energy*, 135 (15), 450–460 (2014), DOI: 10. 1016/j. apenergy. 2014.08.114

2. Dutta, PP and Baruah, DC., Gasification of tea (Camellia sinensis (L.) O. Kuntze) shrubs for black tea manufacturing process heat generation in Assam, India. *Biomass and Bioenergy* 66: 27-38 (2014).

Courses offered in M. Tech. in Energy Technology:

First Semester

Course Code	Course Title	Cr.
EN 501	Foundation for Energy Engineering	2
EN 502	Energy, Ecology and Environment	3
EN 503	Fuel and Combustion	3
EN 504	Heat Transfer	3
EN 505	Solar Energy Utilization	3
EN 506	Biomass Energy Utilization	3
EN 507	Wind and Hydro Energy	3
EN 508	Energy Laboratory	2
	CBCT-I	3

Second Semester

Course Code	Course Title	Cr.
EN 510	Energy Management and Auditing	4
EN 511	Energy Economics and Planning	3
EN 512	Energy Systems and Simulation Laboratory	3
EN 513	Seminar	1
	Elective-I	3
	Elective –II	3
	CBCT– I	3
	CBCT –II	3

Third Semester

Course Code	Course Title	Cr.
EN 539	Project (Part-I)	8

Fourth Semester

Course Code	Course Title	Cr.
EN 540	Project (Part-II)	16

Elective– I (Any One from the following Courses)

Course Code	Course Title	Cr.
EN 515	Advanced Bio-Energy	3
EN 516	Advanced Solar Thermal Energy	3
EN 517	Advanced Solar Photovoltaic Energy	3
EN 518	Hydrogen Energy and Fuel Cell	3
EN 519	Alternative Fuels for IC Engines	3
EN 520	Petroleum Exploration, Production and Refining	3

Elective –II (Any One from the following Courses)

Course Code	Course Title	*Cr.*
EN 525	Thermal Power Plant Engineering	3
EN 526	Energy Efficient Building	3
EN 527	Renewable Energy Grid Integration	3
EN 528	Decentralized Energy Systems	3
EN 529	Energy, Climate Change and Carbon Trade	3
EN 530	Instrumentation and Control for Energy Systems	3
EN 531	Numerical Heat Transfer and Fluid Flow	3
EN 532	Energy Conservation and Waste Heat Recovery	3
EN 533	Energy Storage Systems	3
EN 534	Energy Modeling and Optimization	3

Courses offered in B. Voc. (Agriculture) – Renewable Energy

Year-I:: NSQF Level-V

First Semester (L_5_Sem_I)

Course Code	Course Title	Cr.
BGC 111	English-I	4
BGC 112	Mathematics-I	4
BGC 113	Chemistry-I	4
BVC 111	Engineering Drawing	3
BVC 112	Introductory Microbiology	3
BVR 113#	Renewable Energy Technology-I	4
BVR 114#	Workshop Practice (RE) - I	3
BVR 115#	Renewable Energy Laboratory -I	5

Second Semester (L_5_Sem_II)

Course Code	Course Title	Cr.
BGC 121	Communication Skill - I	4
BGC 122	Mathematics - II	4
BGC 123	Physics - I	4
BVC 121	Basic Electrical Systems	3
BVC 122	Biomolecules	3
BVR 123#	Renewable Energy Technology-II	4
BVR 124#	Workshop Practice (RE) - II	3
BVR 125#	Renewable Energy Laboratory -II	5

Appropriate window may be provided for industrial engagement leading to vocational practice .
BGC: B.Voc. General Component, BVC: B.Voc Vocational Component,
BVR: B.Voc. Vocational Component under Renewable Energy Trade.

Year-II:: NSQF Level-VI

Third Semester (L_6_Sem_I)

Course Code	Course Title	Cr.
BGC 211	Sociology	4
BGC 212	Communication Skill - II	4
BGC 213	Chemistry-II	4
BVC 211	Applied Mechanics	3
BVC 212	Machine Drawing	3
BVR 213#	Solar Energy Systems	3
BVR 214#	Biomass Conversion Technologies	4
BVR 215#	Farm Power	5

Fourth Semester(L_6_Sem_II)

Course Code	Course Title	Cr.
BGC 221	Mathematics-III	4
BGC 222	Physics - II	4
BGC 223	Introductory Computing	4
BVR 221#	Fuel Technology	3
BVR 222#	Wind and Hydro Energy	3
BVR 223#	Energy Efficiency in Process Utilities	3
BVR 224#	Carbon Credit	4
BVR 225#	Waste Recycling and Resources Recovery System	5

Appropriate window may be provided for industrial engagement leading to vocational practice.

Year-III:: NSQF Level-VII

Fifth Semester (L_7_Sem_I)

Course Code	Course Title	Cr.
BGC 311	Communication and Presentation Skill	3
BGC 312	Economics and Industrial Statistics	4
BGC 313	Computational Laboratory	5
BGC 314	Environmental Studies	4
BGC 315	Instrumentation and Process Control	4
BVR 311#	Renewable Energy Economics	3
BVR 312#	Energy Management and Auditing	3
BVR 313#	Energy Audit Exercise	4

Sixth Semester(L_7_Sem_II)

Course Code	Course Title	Cr.
BGC 321	Technical Communication and Reporting	4
BVR 321	Case Study and Project	26

Appropriate window may be provided for industrial engagement leading to vocational practice.

For more information one can visit the departmental website http://www.tezu.ernet.in/dener

ENGLISH AND FOREIGN LANGUAGES
(Year of Establishment: 1994)

The Department, which was established in 1994, aims to provide instruction and carry out research in American Literature, English Language Teaching, English Literature, Indian Writing in English, Linguistics, New Literature in English and Women's Writing in English.

Programmes offered

1. Integrated B.A.B.Ed. (English Major).
2. Integrated M.A. in English.
3. Certificate Course in Language Documentation and Revitalization (One Semester).
4. One Year Certificate Course of Chinese (Full Time).
5. Certificate Course in Endangered Languages. (Admission for this programme not through TUEE)
6. M.A. in English.
7. M.A. in Linguistics and Language Technology.
8. M. A. in Linguistics and Endangered Language* (Modular).

(Students on this programme will have the choice to exit after successful completion of the first two semesters and receive a PG Diploma in Linguistics and Endangered Languages, **OR** continue for another two semesters for an MA in Linguistics and Endangered Languages.)*

9. Ph. D.

Faculty and Areas of Interest :

Professors	
*Sarma, M.M., Ph.D. (DU)	*Applied Linguistics, Literature in English, ELT.*
*Danta, B.K., Ph.D. (UU)	*American Literature, Critical Theory, Fiction Studies.*
*Danta, F., Ph.D. (DU)	*American Literature, Cultural Studies, Modernist Poetics.*
*Das, P. K., Ph.D. (GU)-HoD	*American Literature, Indian Writing in English.*
*Barbora, M., Ph.D. (TU)	*Linguistics (Syntax, Psycholinguistics).*
Associate Professors	
*Borah, G.K., Ph.D. (NTNU, Trondheim, Norway)	*Linguistics, Cognitive Semantics, Philosophy of Language.*
*Biswas, S., Ph.D. (NEHU)	*Critical Theory, Indian Writing in English.*
*Mohapatra, D., Ph.D. (EFLU, Hyderabad)	*Curriculum Development, Materials Production, Language Policy.*
Assistant Professors	
Medhi, H.M., Ph.D. (DU^)	*Gender and Literature, New Literatures in English.*
Chakraborty, R., M.Phil. (Chinese), (JNU)	*Chinese Language & Literature.*
Narzari, R., M.A. (NEHU)	*Women's Writing, Commonwealth Literature, Indian Writing in English.*
Jha, P., Ph.D. (UH)	*Children's Literature, Popular Culture and Literature, Postcolonial Writing.*
*Sahoo, S., Ph.D. (TU)	*Indian Writing in English, Ecocriticism, Travel Writing.*
Gogoi B., M. Phil. (EFLU, Shillong)	*Critical Theory, Indian Writing in English*
$Nath A.K., Ph.D. (JNU)	*Language Typology, Morphology, Language Endangerment, Multilingualism, Sociolinguistics.*
Patgiri B., M.Phil. (JNU)	*Phonology (Prosody, Dialectology, Language Typology andSyntax)*
Daimari E., M.Phil. (GU)	*South Asian Literature.*
Kumar P., Ph.D. (JNU)	*Language Description & Documentation, Endangered Languages and Lesser known Languages, Language.*
Zingjarwon, N., M.Phil. (Chinese), (JNU)	*Chinese Language and Literature.*
Medhi, B, K., M. Phil. (JNU)	*German Language and Literature.*
Sarkar, A., M. Phil. (CU)	*Comgnitive Linguistics, Computational Linguistics, Construction Grammar, Pragmatics.*

*** Recognized Supervisor $ Recognized Associate Supervisor**

LEGENDS: ***DU****- Dibrugarh University,* ***UU****-Utkal University,* ***GU****-Gauhati University,* ***TU****-Tezpur University,* ***DU^****-Delhi University,* ***UH****-University of Hyderabad* ***VB****-Visva-Bharati, Santiniketan* ***NEHU****- North Eastern Hill University, Shillong,* ***EFLU****- English and Foreign Language University, Hyderabad,* ***JNU****- Jawaharlal Nehru University, New Delhi,* ***NTNU****-Norweign University of Science and Technology,* ***CU****– University of Calcutta,* ***HoD****-Head of the Department.*

Facilities

Digital Language Laboratory

The Department has a digital multimedia, multipurpose language laboratory with fifteen booths. Students can improve their pronunciation of English and Foreign Languages (Chinese and French) and develop interactive language skills by utilizing the software and other facilities available in the Laboratory.

Departmental Library

Selected books and photocopied materials relating to literature, linguistics and ELT are available in the Departmental Library. The Department also has a collection of audio cassette of English Pronunciation and spoken English and number of Video CDs on library texts.

The Department has a small Computer Laboratory for the use of students and research scholars.

Research Activity

SAP-DRS II Project on 1) Understanding Colonial and Alternative Modernities in Travel and Life Writings in Assam and 2) Examining Asian and Indian Influences on Modern Assamese.

No. of papers published in the year 2014 : **10**
No of ongoing projects : **03**
The Department of English and Foreign Language is a UGC -SAP Department

Selected Publications

1. Sarma, MM. "Indian oral Narrative in Postmodern Historiography : A Reading of *Midnight's Children* Tradition" Ed. Joel Kuortti. Ipswich Massachusetts : Salem Press, 2014
2. Nath, A K. *Impact of Code-Switching-Mixing in Assamese: A Synchronic Study*. Guwahati Publication Board, 6458.

Courses Offered in M. A. in English:

First Semester

Course Code	Course Title	Cr.
EG 441	Renaissance Drama	4
EG 443	18th and 19th Century Fiction	4
EG 445	ELT	4
EG 447	Structure of English Linguistics– II	4
	CBCT– I	3

Second Semester

Course Code	Course Title	Cr.
EG 442	Jacobean to Victorian Poetry	4
EG 444	Literary Theory -I	4
EG 446	Modern Prose	4
EG 448	Language and Linguistics	4
	CBCT– II	3

Third Semester

Course Code	Course Title	Cr.
EG 553	Literary Theory -II	4
EG 587	Modern Poetry	4
EG 589	Modern Fiction	4
	Elective –I	4
	CBCT– III	3

Fourth Semester

Course Code	Course Title	Cr.
EG 554	Modern Drama	4
EG 556	Postcolonial Writing	4
EG 558	Dissertation	6
	Elective –II	4
	CBCT– IV	3

Elective –I (Any One from the following Courses)

Course Code	Course Title	Cr.
EG 555	Indian Writing in English -I	4
EG 557	American Literature -I	4
EG 559	Critical Theory -I	4
EG 569	Translation : Theory and Practice -I	4
EG 571	Gender and Literature –I	4
EG 572	ELT –I	4
EG 573	Linguistics -I	4
EG 574	Cognitive Linguistics -I	4

Elective –II (Any One from the following Courses)

Course Code	Course Title	Cr.
EG 621	Indian Writing in English -II	4
EG 622	American Literature -II	4
EG 623	Critical Theory -II	4
EG 624	Translation : Theory and Practice -II	4
EG 625	Gender and Literature –II	4
EG 626	ELT –II	4
EG 627	Linguistics -II	4
EG 628	Cognitive Linguistics -II	4

Courses offered in M. A. in Linguistics and Language Technology:

First Semester

Course Code	Course Title	Cr.
LG 421	Philosophical Underpinnings of Modern Linguistics	4
LG 422	Phonetics and Phonology –I	4
LG 423	Morphology	4
LG 424	Syntax -I	4
	CBCT -I	3

Second Semester

Course Code	Course Title	Cr.
LG 425	Syntax –II	4
LG 426	Phonology -II	4
LG 427	Cognitive Linguistics	4
LG 428	Field Linguistics	4
	CBCT -II	3

Third Semester

Course Code	Course Title	Cr.
LG 501	Language Universals and Language Typology	4
LG 502	Semantics	4
LG 503	Computational Linguistics	4
	Elective -I	4
	CBCT -III	3

Fourth Semester

Course Code	Course Title	Cr.
LG 508	Historical Linguistics	3
LG 509	Sociolinguistics	3
LG 514	Dissertation	6
	Elective –II	4
	CBCT –IV	3

Elective —I (Any One from the following Courses)

Course Code	Course Title	Cr.
LG 504	Advanced Syntax -I	4
LG 505	Advanced Cognitive Linguistics –I	4
LG 506	Advanced Field Linguistics (Mainly on TBL[1]) - I	4
LG 507	Advanced Phonology -I	4

Elective –II (Any One from the following Courses)

Course Code	Course Title	Cr.
LG 510	Advanced Syntax -II	4
LG 511	Advanced Cognitive Linguistics –II	4
LG 512	Advanced Field Linguistics (Mainly on TBL– II)	4
LG 513	Advanced Phonology -II	4

TBL[1]- Tibeto—Burman– Language

Courses offered in Integrated M. A. in English:

First Semester

Course Code	Course Title	Cr.
EG 102	Reading Literature	4
EG 105	English Literary History -I	4
CS 101	Basics in Computer Application	3
MIL (ANY ONE)		
AS 101	M.I.L. Assamese: Poetry (Early and Modern	3
HN101	Madhyakalin aur Adhunik Kabya (in Hindi)	3
EG106	Alternative English -I	3
OPTIONAL COURSES (ANY TWO)		
SO102	Introduction to Sociology	2
CT101	Folklore –I	2
MC101	Introduction to Communication	2

Second Semester

Course Code	Course Title	Cr.
EG 103	Modern English Grammar	4
EG 104	Poetry from Chaucer to Dryden	4
ES 102	Elements of Environmental Science	2
NS102	NSS/NCC	2
MIL (ANY ONE)		
AS 102	M.I.L. Assamese : Drama	3
HN102	Kahani aur Upanyas (in Hindi)	3
EG 109	Alternative English-II	3
OPTIONAL COURSES (ANY TWO)		
SO 103	Introduction to Sociological Thought	2
CT 102	Cultural Studies-I	2
MC 202	Journalism	2

Third Semester

Course Code	Course Title	Cr.
EG 201	English Drama from Beginning to Shakespeare	4
EG 203	Phonetics of English and ELT	4
EG 205	English Literary History -II	4
EG 207	Seminar Presentation	2
MIL (ANY ONE)		
AS 201	MIL (Assamese): Short Story and Novel	2
EG 209	Alternative English -III	2
HN201	Natak Aur Ekanki	2
OPTIONAL COURSES (ANY TWO)		
SO 201	Society in India	2
CT 201	Folklore -II	2
MC 201	Advertising and Public Relations	2

Fourth Semester

Course Code	Course Title	Cr.
EG 202	Fiction from Bunyan to Austen	4
EG 204	Literary Criticism -I	4
EG 206	Introductory Linguistics	4
EG 208	Seminar Presentation	2
MIL (ANY ONE)		
AS 202	MIL (Assamese) Essay, Structure of Assamese	2
EG 211	Alternative English -IV	2
HN 202	Nibandh Aur Hindi Bhasa Ki Bhasik Sangrachana	2
OPTIONAL COURSES (ANY TWO)		
SO 202	Social Research Method	2
CT 202	Cultural Studies -II	2
MC 202	Electronic Media	2

Fifth Semester

Course Code	Course Title	Cr.
EG 301	Literary Criticism -II	4
EG 303	Poetry: Pre-Romantic to Modern	4
EG 305	Non-Fictional Prose	4
EG 307	Seminar Presentation	2
EG 310	Project	3

Sixth Semester

Course Code	Course Title	Cr.
EG 304	Drama: Seventeenth to Twentieth Century	4
EG 306	Fiction : Victorian and Modern	4
EG 308	India Writing in English	4
EG 310	Project	5

Courses offered in Integrated B.A. B. Ed. in English

 # The curriculum and syllabi for B.A. B. Ed. has been going through a major revision. The course structure and detail syllabi shall be made available in the University Website at an appropriate time.

Courses offered in One Year Certificate in Chinese (Full Time):

First Semester

Course Code	Course Title	Cr.
CL 101	Reading Chinese Text -I	3
CL 103	Comprehension and Translation	3
CL 105	Introduction to China –I	3
CL 107	Chinese Oral Skills –I	3

Second Semester

Course Code	Course Title	Cr.
CL 102	Reading Chinese Text -II	3
CL 104	Composition and Translation	3
CL 106	Introduction to China –II	3
CL 108	Chinese Oral Skills –II	3

Courses offered in M. A. in Linguistics and Endangered Languages*

First Semester

Course Code	Course Title	Cr.
LE 101	Basic Phonetics and Phonology	4
LE 103	Basic Morphology and Syntax	4
LE 105	Basic Semantics and Pragmatics	4
LE 107	Field Linguistics	4
	CBCT	3

Second Semester

Course Code	Course Title	Cr.
LE 102	Language Documentation	4
LE 104	Language Technology and Archiving	4
LE 106	Sociolinguistics and Sociology of Language	4
LE 108	Language Revitalization	4
	CBCT	3

Third Semester

Course Code	Course Title	Cr.
LE 201	Language Typology and Language Universals	4
LE 203	Language Structures of Indian Languages	4
LE 205	Language Analysis of Endangered Languages	4
	Elective – I	3
	CBCT	3

Fourth Semester

Course Code	Course Title	Cr.
LE 202	Grammar Writing, Lexicography and Lexical Database	4
LE 204	Different Approaches to Grammatical Theories	4
LE 216	Dissertation*	6
	Elective – II	3
	CBCT	3

Electives-I

Course Code	Course Title	Cr.
LE 211	Advanced Field Linguistics and Language Documentation – I	3
LE 213	Advance Language Technology and Archiving –I	3

Electives-II

Course Code	Course Title	Cr.
LE 212	Advanced Field Linguistics and Language Documentation – II	3
LE 214	Advance Language Technology and Archiving –II	3

* *LE 216 Dissertation (Students will require to write a dissertation of 600 words on a topic from his / her area of specialization.*

Courses offered in Certificate Course in Language Documentation and Revitalization programme*

Course Code	Course Title	Cr.
LE 121	Basic Phonetics, Phonology and Morphology	4
LE 122	Basic Syntax, Semantics and Pragmatics	4
LE 123	Language Documentation and Revitalization	4
LE 124	Field Linguistics and Equipment Handling	4

*This is a one-semester programme

For more information one can visit the departmental website http://www.tezu.ernet.in/deng

ENVIRONMENTAL SCIENCE
(Year of Establishment: 2004)

Initially established as a centre for Environmental Science in 2003, the centre was converted to the Department of Environmental Science in 2004, with the objective of imparting education on regional and global environmental issues. The curriculum for the M. Sc. programme focuses on all important aspects of Environmental Science covering contemporary problems of natural resource conservation and environmental quality. Areas of research include Environmental Pollution, Greenhouse gas emission, Riverine Hazards, Climate, Geomorphology, Atmospheric processes, Vulnerability and Adaption, Hydrogeochemistry, Vermicomposting, Pollution remediation and Biodiversity conservation.

Programmes offered

1. M. Sc. in Environmental Science.
2. Ph. D.

Faculty and Areas of Interest :

Professors	
*Baruah, K.K., Ph.D. (PAU)	*Plant Physiology and Biochemistry, Climate Change, C-sequestration, GHG Emission.*
*Sarma, K.P., Ph.D. (NEHU)	*Water and Soil Pollution, Hydro-geochemistry, Remediation of Toxic Substances.*
Associate Professors	
*Hoque, R.R., Ph.D. (JNU)	*Environmental Monitoring and Assessment, Air Pollution.*
*Das, A.K., Ph.D. (JNU)- HoD	*Geomorphology, Riverine Hazards, Urban Environment.*
Assistant Professors	
*Devi, A., Ph.D. (NEHU)	*Forest Ecology, Wildlife and Biodiversity.*
*Gogoi, N., Ph.D. (DU)	*Plant Physiology and Biochemistry, Stress Physiology.*
*Bhattacharya, S. S., Ph.D. (VB)	*Vermiculture, Plant Nutrition and Soil Fertility Management.*
*Kumar, M., Ph.D. (UT)	*Hydro-geochemistry, Contaminant Transport Modelling, Metal Speciation, Isotope Fingerprinting and Imprints of Climate Change On Water Resources..*
Handique, S., M.Sc. (JNU)	*Geochemistry.*
*Prakash, A., Ph.D. (JNU)	*Environmental System Modelling, Air Pollution Meteorology, Noise and Vibration.*
*Mitra, S., Ph.D. (IARI)	*Environmental Pollution, Climate Change Vulnerability and Adaptation, GHG Management.*

***Recognized Supervisor**

*LEGENDS: **PAU**-Punjab Agricultural University, **DU**-Dibrugarh University, **VB**-Visva-Bharati, Santiniketan, **UT**-The University of Tokyo, **NEHU**-North Eastern Hill University, Shillong, **JNU**-Jawaharlal Nehru University, New Delhi **IARI**-Indian Agricultural Research Institute, New Delhi, **HoD**- Head of the Department.*

Facilities

The Department has a sophisticated instrumentation laboratory to facilitate research and other academic activities. The laboratory has the following equipments: ICP-OES, Laser Leaf Area Meter with Root Measurement Attachment, Light Meter, Portable Photosynthesis Systems, Gas Chromatographs, Ion Chromatograph, TOC Analyzer, Continuous Air Pollution Monitoring Station, UV-Visible Spectrophotometer, Ion meter, Repairable dust sampler and Flame Photometer, GIS laboratory and plant culture house.

Research Activity

No. of papers published in the year 2013-14 : **40**
No. of ongoing research projects : 1**6,** Completed **: 05**

Selected Publications:

1. Sahariah B, Goswami L. K, Kim KH, Bhattacharyya P, Bhattacharya SS (2015). Metal remediation and biodegradation potential of earthworm species on municipal solid waste: A parallel analysis between Metaphire posthuma and Eisenia fetida. Bioresource Technology.
2. Das A and Kumar M (2015). Arsenic enrichment in the groundwater of Diphu, Northeast India: Coupled application of major ion chemistry, specification modeling and multivariate statistical techniques. CLEAN, Air, Water, 10. 1002/clen. 201400632.

Courses offered in M. Sc. in Environmental Science:

Core Courses

Course Code	Course Title	Cr.
ES 501	Fundamentals of Environmental Science	3
ES 502	Elements of Ecology	3
ES 503	Environmental Chemistry	3
ES 505	Natural Hazards	2
ES 506	Basics of Computer Science	3
ES 507	Environmental Biology	3
ES 508	Environmental Physics	3
ES 510	Energy and Environment	3
ES 511	Environmental Pollution	4
ES 512	Environmental Plant, Physiology and Biochemistry	4
ES 513	Environmental Impact and Assessment	3

Course Code	Course Title	Cr.
ES 514	Waste Management	3
ES 516	Global Climate Change and Its Impact	3
ES 518	Environmental Laws and Policies	2
ES 519	Seminar in Environmental Science	1
ES 529	Principles of Instrumental Methods and Analysis	3
ES 530	Environmental Geo-Science	3
ES 531	Climatology and Meteorology	3
ES 532	Agriculture and Environmental Sustainability	3
ES 533	Fundamental of Statistics	3
ES 500	Project / Dissertation	10

Elective Courses

Course Code	Course Title	Cr.
ES 520	Cell Biology	2
ES 521	Photosynthesis and Respiration	2
ES 523	Human Population , Social Issues and Environment	2
ES 526	Pesticides in relation to Environment	2
ES 534	Soli Science and Soil Ecology	2

Course Code	Course Title	Cr.
ES 535	Statistical Methods	2
ES 536	Environmental Biotechnology	2
ES 537	Agro - forestry and Forest Management	2
ES 538	Biodiversity and Biodiversity Conservation	2
ES 539	Remote Sensing and GIS	2

For more information one can visit the departmental website http://www.tezu.ernet.in/denvsc

FOOD ENGINEERING AND TECHNOLOGY
(Year of Establishment: 2006)

The Department was established in the year 2006 with the name of Department of Food Processing Technology for imparting Post Graduate education in the area of food processing and engineering. With the introduction of B.Tech programme in Food Engineering and Technology (FET) in the year 2010, it was renamed as the Department of Food Engineering and Technology. The vision of the Department is to create trained and skilled human resources to cater to the needs of the rapidly growing food processing sectors in India. The programmes offered at the Department aim at imparting the students both with skills and knowledge to succeed as entrepreneurs and professionals. The students are exposed to the rigors of working environment of food processing industries through training and visits as a part of their course work.

The Department has the support of the Ministry of Food Processing Industries (MoFPI), Govt. of India, under HRD grant for establishing laboratories to conduct PG and UG courses in Food Engineering and Technology, and for establishing a Quality Control Laboratory. The Department of Science and Technology (DST), Govt. of India has granted support to strengthen the Post Graduate teaching and Research under its FIST programme. AICTE has supported running AICTE approved courses at the department through the scheme of AICTE NEQIP GATE qualified M.Tech students receive PG Schaolarship of MHRD. One of the bright B. Tech students is considered for fellowship under GE Foundation's Scholar leader programme.

Research activities at the Department are supported by various sponsoring agencies like MoFPI, DST, DBT, UGC, and DRDO etc. Various projects carried out at the Department aims at developing effective and low cost technologies for the society. Some developed food products have also been patented by the faculties. Workshops and seminars are organized regularly in the Department for knowledge sharing among peers as well as for motivating local youths to start their own enterprises.

Programmes offered

1. B. Tech. in Food Engineering & Technology.
2. B. Voc. (Agriculture) in Food Processing.
3. M. Tech. in Food Engineering and Technology.
4. Ph. D.

Faculty and Areas of Interest :

Professors	
*Mahanta, C.L., Ph.D. (CFTRI, Mysore)	*Rice Science & Technology, Product Development and Food Quality.*
*Deka, S.C., Ph.D. (CCSHAU, Hisar)	*Food Biochemistry and Food Quality, Fermented Foods.*
Associate Professors	
*Hazarika, M.K., Ph.D. (IITKgp)-HoD	*Food Process Modeling, Product Technology Development, Transport Processes in Food Engineering.*
*Srivastava, B., Ph.D. (IITKgp)	*Process and Food Engineering, Fruits and Vegetable Processing and Machineries, Drying and Dehydration, Unit Operations in Food Engineering.*
Sit, N., Ph. D. (TU)	*Food Engineering, Biochemical Engineering, Oils and Fats, Food and Biotechnology.*
Mishra, P., Ph. D. (TU)	*Food Technology.*
Badwaik, L.S., Ph. D. (TU)	*Food Engineering and Technology, Fermentation Technology, Cereals and Pulses Technology, Fruits and Vegetables Technology, Food Packaging, Food and Safety and Laws.*
Seth, D., M. Tech. (IITKgp)	*Dairy and Food Engineering, Dairy Technology, Unit Operations in Food Engineering, Emerging Trends in Food Process Engineering.*

*Duary, R.K., Ph.D. (NDRI, Karnal)	*Isolation and Establishment of Probiotic Organism, Probiotic Food Formulation and Development, Fermentation, Human Cell culturing.*
#Dash, K.K., Ph.D. (IITKgp)	*Food Process Modeling, Transfer Process in Engineering, Optimization in Food Engineering.*
Das, A.B., M.S. (IITKgp)	*Food process Modeling, Optimization in Food Engineering, Product Technology Development.*

*** Recognized Supervisor # Recognized Associate Supervisor**

LEGENDS: ***IITKgp****-Indian Institute of Technology- Kharagpur,* ***CFTRI****-Central Food Technological Research Institute,* ***CCSHAU****– Chaudhary Charan Singh Haryana Agricultural University,* ***NDRI****- National Dairy Research Institute,* ***TU****– Tezpur University,* ***HoD****– Head of the Department.*

Facilities

The Department is well equipped with processing and analytical equipments and is in the process of procuring many more equipments to make the state of the art facilities. Great emphasis is laid on practical for processing of foods and for analyzing their quality. List of some major equipments available with department are as follows: HPLC, Texture Analyser, Hunter Lab Color Spectrophotometer, Rapid Visco Analyser, UV-Vis Spectrophotometer, Binocular Microscope, Deep Freezer, BOD Incubator, Rotary Vacuum Evaporator, Photoflurometer, Biohazard Safety Cabinet, Lab. Scale Spray Drier, Tray Drier, Drum Drier, Fluidized Bed Drier, Baking Oven, Canning Unit, Food Processing Equipments, Packaging Equipments, Hammer Mill, Ball mill, Laboratory Pasteurizer, Paddy Huller, Paddy Sheller, Laminar Flow, Fruit Crasher, etc.

Research Activity

No. of papers published in the year 2014 : 28

No. of ongoing research projects: 16

Selected Publications

1. Mahnot, N. K., Kalita, D., Mahanta, C. L., Chaudhri, M. K. (2014). Effect of additives on the quality of tender coconut water processed by nonthermal two stage microfiltration technique. L W T– Food Science and Technology 59:1191-1195.
2. Sit, N., Misra, S., Baruah, D., Badwaik, L. S, and Deka, S. C. (2014). Physicochemical properties of taro and maize starch and their effect on texture, colour and sensory quality of tomato ketchup. Starch / Starke 66:294 –302.

Courses offered in M. Tech. in Food Engineering & Technology :

First Semester

Course Code	Course Title	Cr.
FT 511	Research Methodology	3
FT 512	Advanced Food Engineering	4
FT 513	Engineering Properties of Biological Materials	3
	Elective -I	3
	Elective -II	3
	Elective -III	3
	CBCT-I	3

Second Semester

Course Code	Course Title	Cr.
FT 516	Emerging Trends in Food Processing	3
FT 517	Food Plant Design and Layout	3
FT 601	Food Product Development	3
FT 602	Simulation and Modeling	4
	Elective -IV	3
	CBCT-II	3
	CBCT-III	3
	Seminar	1

Third Semester

Course Code	Course Title	Cr.
FT 681	Project Seminar	6

Fourth Semester

Course Code	Course Title	Cr.
FT 682	Project Report	12

Elective Courses

Course Code	Course Title	Cr.
FT 521	Bakery and Confectionary Technology	3
FT 522	Oils and Fats Technology	3
FT 523	Processing Technology of Meat, Poultry and Fish	3
FT 524	Novel Separation Techniques	3
FT 525	Bioprocess Engineering	3
FT 526	Fermentation and Process Control	3
FT 527	Food Biotechnology	2
FT 528	Industrial Microbiology and Enzyme Technology	3
FT 529	Fermented and Non Fermented Beverages	3
FT 530	Food Process Design and Analysis	3

Course Code	Course Title	Cr.
FT 531	Food Process Automation	3
FT 532	Numerical Methods in Food Processing	3
FT 533	Energy Conservation in Food Processing	3
FT 534	Drying and Dehydration	3
FT 535	Specialty Foods: Nutraceuticals and Functional Foods	3
FT 536	Food Plant Hygiene and Sanitation	3
FT 537	Waste Management and by Product Utilization in Food Industries	3
FT 538	Industrial Safety and Hazards	3
FT 539	Food Rheology	3

Courses offered in B. Voc. (Agriculture) – Food Processing

Year-I:: NSQF Level-V

First Semester (L_5_Sem_I)

Course Code	Course Title	Cr.
BGC 111	English-I	4
BGC 112	Mathematics -I	4
BGC 113	Chemistry -I	4
BVC 111	Engineering Drawing	3
BVC 112	Introductory Microbiology	3
BVF 113#	Workshop Practice (FP) - I	3
BVF 114#	Agro Processing Methods	4
BVF 115#	Food Products Technology -I	5

Second Semester (L_5_Sem_II)

Course Code	Course Title	Cr.
BGC 121	Communication Skill - I	4
BGC 122	Mathematics - II	4
BGC 123	Physics - I	4
BVC 121	Basic Electrical Systems	3
BVC 122	Biomolecules	3
BVF 123#	Workshop Practice (FP) -II	3
BVF 124#	Agro Processing Machines	4
BVF 125#	Food Products Technology -II	5

Appropriate window may be provided for industrial engagement leading to vocational practice

Year-II:: NSQF Level-VI

Third Semester (L_6_Sem_I)

Course Code	Course Title	Cr.
BGC 211	Sociology	4
BGC 212	Communication Skill - II	4
BGC 213	Chemistry-II	4
BVC 211	Applied Mechanics	3
BVC 212	Machine Drawing	3
BVF 213#	Floor Practice – I	3
BVF 214#	Food Processing Methods	4
BVF 215#	Food Products Technology -III	5

Fourth Semester (L_6_Sem_2)

Course Code	Course Title	Cr.
BGC 221	Mathematics -III	4
BGC 222	Physics - II	4
BGC 223	Introductory Computing	4
BVF 221	Food Processing Safety Issues	3
BVF 222	Food Plant Utilities	3
BVF223#	Floor Practice – II (Mechanical Servicing and Maintenance)	3
BVF224#	Food Processing Machines	4
BVF225#	Food Products Technology-IV	5

Year-III:: NSQF Level-VII

Fifth Semester (L_7_Sem_I)

Course Code	Course Title	Cr.
BGC 311	Communication and Presentation Skill	3
BGC 312	Economics & Industrial Statistics	4
BGC 313	Computational Laboratory	5
BGC 314	Environmental Studies	4
BGC 315	Instrumentation and Process Control	4
BVF 311	Food Safety Standards and Regulations	3
BVF 312	Adv Food Processing Methods	4
BVF 313#	Floor Practice -III	3

Sixth Semester (L_7_Sem_II)

Course Code	Course Title	Cr.
BGC 321	Technical Communication and Reporting	4
BVF321#	Food Products Technology -V	8
BVF322#	Project on Food Processing Systems	18

Appropriate window may be provided for industrial engagement leading to vocational practice.

For more information one can visit the departmental website http://www.tezu.ernet.in/dfpt

HINDI
(Year of Establishment: 2010)

The Department of Hindi, which was established in January, 2010, offers a Ph.D. programme (in Hindi Literature/ language), M.A. Programme in Hindi, Post Graduate Diploma Programme in Translation (Hindi), CBCT and Modern Indian Language (MIL) for integrated B.A. B.Ed. programme. The Department also offers a Certificate Course in Official Hindi (Level-1) to the employees of the University in order to help them to develop their skill and self-confidence in speaking and writing in Hindi Language.

Programmes offered

1. Post Graduate Diploma in Translation (Hindi).
2. M. A.
3. Ph.D.

Faculty and Areas of Interest :

Professor	
*Nath, A.K., Ph.D. (MU)	*Medieval Poetry, Folkloristic, Comparative Literature.*
Associate Professor	
*Tripathi, S.K., Ph.D. (BHU)-HoD	*Applied Linguistics, Indian Poetics and Folkloristic.*
Assistant Professors	
Anju Lata., Ph.D. (TU)	*Fiction.*
Anushabda., Ph.D. (DU)	*Poetry, Poetics, Media and Linguistics.*

*** Recognized Supervisor**

LEGENDS: ***MU****-Manipur University,* ***BHU****-Banaras Hindu University,* ***TU–*** *Tezpur University, New Delhi,* ***DU****-Delhi University,* ***HoD****-Head of the Department.*

Facilities

The Department has a small Departmental library.

Research Activity

No. of papers published in the year 2014 : **6**

Selected Publications

1. Nath, A.K., Arunachal Pradesh mein Hindi Dasha Aur Disha, Samsamayik Hindi Sahitya : Vividh Ayam (Dr.Malatlal Patel Abhinandan Granth), Shanti Prakash, Gujrat, March 2012.
2. Tripathi, S.K. Lok ka Awalokan (Book), Arya Prakashan, Gandhi Nagar, New Delhi, 2013.

Courses offered in PG Diploma in Translation (Hindi) :

First Semester

Course Code	Course Title	Cr.
HN 411	Prayojanmulak Hindi, Bhasha Prayukti Aur Anuvad	4
HN 412	Hindi Bhasha Ki Sanvaidhanik Sthiti Aur Anuvad	4
HN 413	Anuvad Vigyan Aur Uska Sidhanta	4
HN414	Karyalayee Hindi Aur Anuvad	4

Second Semester

Course Code	Course Title	Cr.
HN 421	Anuvad Ka Vyavaharik Paksh	4
HN 422	Janasansar Madhyam Aur Anuvad	4
HN 423	Paribhashik Sabdavalee, Kosh Vigyan Aur Anuvad	4
HN 424	Pariyojana Karya	4

Courses offered in M.A. in Hindi:

First Semester

Course Code	Course Title	Cr.
HN 401	आदि कालीन एवं निर्गुण काव्य	3
HN 402	छायावादी काव्य	3
HN 403	हिंदी साहित्य का इतिहास : आदिकाल और मध्यकाल	3
HN 404	भारतीय काव्यशास्त्र एवं आलोचना	3
	CBCT-I	3

Second Semester

Course Code	Course Title	Cr.
HN 405	सगुण भक्ति एवं रीति काव्य	3
HN 406	छायावादोत्तर काव्य	3
HN 407	हिंदी साहित्य का इतिहास : आधुनिक काल	3
HN 408	हिंदी भाषा एवं लिपि	3
	CBCT-II	3

Third Semester

Course Code	Course Title	Cr.
HN 509	कथा साहित्य : उपन्यास एवं कहानी	3
HN 510	हिंदी नाटक और निबंध	3
HN 511	सामान्य भाषा विज्ञान	3
HN 512	पाश्चात्य समीक्षा एवं शोधप्रविधि	3
	CBCT-III	3

Fourth Semester: (Optional-I)

Course Code	Course Title	Cr.
HN 513	राजभाषा हिंदी : संवैधानिक स्थिति एवं उसका अनुप्रयोगात्मक पक्ष	3
HN 514	हिंदी पत्रकारिता और जनसंचार	3
HN 515	अनुवाद विज्ञान: सिद्धांत एवं अनुप्रयोग	3
HN 516	लघु शोध -प्रबंध / परियोजनाकार्य	6
	CBCT-IV	3

Fourth Semester: (Optional –II)

Course Code	Course Title	Cr.
HN 517	प्रेमचंद	3
HN 518	जयशंकर प्रसाद	3
HN 519	सूर्यकांत त्रिपाठी निराला	3
HN 520	लघु शोध -प्रबंध / परियोजनाकार्य	6
	CBCT-IV	3

Fourth Semester : (Optional-III)

Course Code	Course Title	Cr.
HN 521	भाषा -शिक्षण	3
HN 522	शैलीविज्ञान	3
HN 523	समाज भाषाविज्ञान	3
HN 524	लघु शोध -प्रबंध / परियोजनाकार्य	6
	CBCT-IV	3

Fourth Semester (Optional-IV)

Course Code	Course Title	Cr.
HN 525	तुलनात्मक साहित्य : स्वरूप, उद्भव और विकास	3
HN 526	भारतीय साहित्य : अवधारणा और विशेषताएँ	3
HN 527	पूर्वांचल की संस्कृति और साहित्य	3
HN 528	लघु शोध -प्रबंध / परियोजनाकार्य	6
	CBCT-IV	3

For more information one can visit the departmental website http://www.tezu.ernet.in/dhindi

MASS COMMUNICATION AND JOURNALISM
(Year of Establishment: 2001)

The Department, established in 2001, is engaged in teaching and research in Media and Communication studies. It has been undertaking research in tune with emerging trends in media and communication locally and globally. The thrust areas of the Department are Social Communication, New Media and Audience Studies while laying emphasis on critical understanding of theory and practice.

Programmes offered

1. Post Graduate Diploma in Mobile and Multimedia Communication.
2. M. A. in Mass Communication and Journalism.
3. Ph. D.

Faculty and Areas of Interest:

Professor	
* Dutta, S. K., Ph.D. (VB) , HoD	*Folklore Studies, Assamese Language and Culture.*
Associate Professors	
*Bora, A., Ph.D. (GU)	*Print Journalism, Community Radio, Development Communication, Analytical Journalism, Media Studies, Specialized Reporting, Science Communication, Media Literacy.*
Anbarasan, P., Ph.D. (JNU)	*Media Studies, Cultural and Subaltern Studies, International Communication, Film Studies.*
Assistant Professors	
Chakraborty, J., Ph.D. (UH)	*ICT for Development, Development Communication, Women and Media; Traditional Media.*
#Pegu, U.K., Ph.D. (JMI)	*ICT Implications on Society, Science Communication, Film Studies and Media Analysis etc.*
Nagaraju, A., M. A. (UH)	*Electronic Media Production, Documentary Filmmaking, Television Production and Advertising.*
Borah, A., M.A. (TU)	*Development Communication, Television and Traditional Media.*
Daimari, P.J., M.A. (TU)	*Film Studies, Development Communication.*
Malakar, K., M. A. (JMI)	*New Media for Development, Multimedia Journalism, Political Communication, Online Journalism, Media Studies, Film Studies.*
#Lakhendra, B., Ph.D. (TU)	*Radio, Youth and Rural Development, Traditional Media, Public Relation and Development Communication.*

***Recognized Supervisor # Recognized Co-supervisor**

LEGENDS: ***VB****– Visva Bharati, Santiniketan ,****GU****- Gauhati University,* ***JNU****-Jawaharlal Nehru University, New Delhi,* ***UH****- University of Hyderabad,* ***TU****-Tezpur University,* ***JMI****- Jamia Millia Islamia, New Delhi,* ***AU****- Assam University, Silchar,* ***HoD****- Head of the Department.*

Facilities

The Department has a spacious exclusive three-story building and is endowed with specialized high-end equipment for print, TV, Radio and web journalism. These include industry grade HD digital video cameras, linear and non-linear editing suites, all in broadcast quality. Students get hands-on experience in multi -camera production in the well-equipped studio. An exclusive multimedia lab with latest software enables students to gather expertise in the nuances of different media productions. A state of the art screening hall with a 100-seat capacity is available for screening and discussion.

Productions

Students as part of their academic curriculum, regularly produce laboratory journals, audio programmes, web designs, brochures, TV news bulletin, corporate videos, documentary films and traditional communication programmes like puppet shows and street plays on a regular basis.

Research Activity

No. of papers published in the year 2014 : **14**

Selected publications

1. Bora, A., "Through the looking glass "VIDURA– Quarterly journal of the press institute of India (Research in newspaper Development), Chennai ISSN No 0042-5303, July– August, 6 (3), 2014.
2. Anbarasan, P., "European Union and Media: Constructing Identity Beyond Borders" Trans– knowledge publisher, New Delhi, (ISBN 798-81-902931-0-3), 2014.

Courses offered in M.A. in Mass Communication and Journalism:

First Semester

Course Code	Course Title	Cr.
MC 490	Communication Theories	3
MC 491	History of Communication and Media	3
MC 492	Media Writing	3
MC 493	Advertising & Public Relations	3
MC 494	Visual Communication and Photography	3
	CBCT-I	3

Second Semester

Course Code	Course Title	Cr.
MC 495	Communication Research Methods	3
MC 496	Introduction to New Media	3
MC 497	Media Laws & Ethics	3
MC 498	Broadcast Media : Radio	3
MC 499	Broadcast Media : Television	3
	CBCT -II	3

Third Semester

Course Code	Course Title	Cr.
MC 500	Communication for Social Change	3
MC 501	Political and International Communication	3
MC 502	Communication Research Project	6
MC 503	Internship #	3
	CBCT- III	3

Fourth Semester

Course Code	Course Title	Cr.
MC 514	Film Studies	3
MC 515	Media in Northeast India	3
MC 516	Internship (non-credit) ##	-
	CBCT -IV	3

Students will opt for one paper from each of Group-A and Group-B in semester III and one from Group-C in semester IV.

Group –A Electives: (Third Semester)

Course Code	Course Title	Cr.
MC 504	Specialized Reporting and Editing	3
MC 505	Online Multi– Camera Production	3
MC 506	Radio Production	3
MC 507	Corporate Communication	3
MC 508	Convergent Journalism	3

Group—B Electives: (Third Semester)

Course Code	Course Title	Cr.
MC 509	Photo Journalism	3
MC 510	Folk and Community Media	3
MC 511	Assamese Journalism	3
MC 512	Media, Culture and Society	3
MC 513	Media Management	3

Group-C Electives: (Fourth Semester)

Course Code	Course Title	Cr.
MC 517	Documentary Production	4
MC 518	Community Radio	4
MC 519	Web Design / Animation	4
MC 520	TV Reporting	4

Courses offered in PG Diploma in Mobile and Multimedia Communication:

Course Code	Course Title	Cr.
MM 401	Introduction to Communication and Media	3
MM 402	Broadcast Media Production	4
MM 403	Basics of Convergence Technologies	4
MM 404	Communication for Social Change	4
MM 405	Persuasive Communication in Practice	6
MM 406	Perspectives of North East India	3
MM 407	Internship	6

Students will undertake the internship during the summer semester break after completion of the second semester.

This non-credited internship for students is voluntary and can be undertaken during the winter break after completion of the Third semester.

For more information one can visit the departmental website http://www.tezu.ernet.in/dmass

MATHEMATICAL SCIENCES
(Year of Establishment: 1994)

The Department was started in July 1994 with the objective of producing trained manpower for undertaking research and teaching in mathematics and allied branches of basic or applied sciences. The Department carries out research in the areas of probability distributions, Optimization theories, Number theory (Algebraic and Analytical), Operator theory, Fuzzy topology, Finite element method, Algebraic graph theory, Algebra (Group Theory and Ring Theory) etc. The Department is currently supported by the UGC under its SAP (DRS-I) scheme. The Department is currently supported by the UGC under its SAP (DRS-I) scheme and DST-FIST grant.

Programmes offered

1. Integrated B.Sc. B. Ed. in Mathematics.
2. Integrated M.Sc. in Mathematics.
3. M.Sc. in Mathematics.
4. Ph.D. in Mathematical Sciences.

Faculty and Areas of Interest :

Professors	
*Borah, M., Ph.D. (GU)	*Discrete Distribution, Combinational Optimization, Genetic Algorithms, Numerical Analysis.*
*Baruah, N.D., Ph.D. (TU)	*Number Theory, Ramanujan's Mathematics.*
*Hazarika, D., Ph.D. (JMI)-HoD	*General Topology, Fuzzy Sets and Applications.*
*Hazarika, M., Ph.D. (TU)	*Functional Analysis, Operator Theory.*
Associate Professors	
*Nath, M., Ph.D. (IITG)	*Ordinary Graph Spectra, Inverse Eigen Value Problem.*
Sarmah, B.P., Ph.D. (GU)	*High Energy Astrophysics, Relativity.*
*Deka, B., Ph.D. (IITG) (on lien)	*Numerical Functional Analysis.*
*Dutta, S., Ph.D. (TU)	*Statistics (Non-parametric).*
*Basnet, D. K., Ph.D. (DU)	*Algebra.*
*Sen, S., Ph.D. (IITG)	*Computational Fluid Dynamics.*
Assistant Professors	
$Haloi, R., Ph.D. (IITK)	*Abstract Differential Equations.*
Sarmah, B.K., Ph.D. (TU)	*Theory of Partition, Ramanujan's Mathematics.*
#Nath, R.K., Ph.D. (NEHU)	*Theory of Finite Groups.*
Kalita, D., Ph.D. (IITG)	*Algebraic Graph Theory.*
Medhi, P., Ph.D. (GU)	*Queuing Theory.*
Goswami, D., Ph.D. (IITB)	*Finite Element Method.*
Paul, S., Ph.D. (TU)	*Spectral Graph Theory.*
Bose, S., M. Sc. (AU)	*Spectral Graph Theory.*

*** Recognized Supervisor; # Recognized Co-supervisor $ Recognized Associate Supervisor**

LEGENDS: ***GU****-Gauhati University,* ***TU****-Tezpur University,* ***JMI****-Jamia Millia Islamia, New Delhi,* ***DU****-Dibrugarh University,* ***IITK****- Indian Institute of Technology, Kanpur,* ***NEHU****- North Eastern Hill University, Shillong,* ***IITB****- Indian Institute of Technology, Bombay,* ***IITG****- Indian Institute of Technology, Guwahati. ,* ***AU****– Anna University, Chennai,* ***HoD****-Head of the Department.*

Facilities

The Department has a computer laboratory established with financial assistance from the DST and UGC. Various Mathematical software are available in the laboratory. The laboratory is fully networked and it is linked with the Central Computer Center via LAN with access to the INTERNET. One Systems Analyst and one Technical Assistant look after the computational and networking facilities of the department. The laboratory is being fully upgraded under DST-FIST grant.

Research Activity

No. of papers published/accepted in referred journals in 2013-2014: **48**
No. of ongoing research projects: **03**
The Department of Mathematical Sciences is a UGC SAP Department.

Selected publications

1. Deka Baruah, N. & Nath, K. Some results on 3-cores, *Proceedings of the American Mathematical Society*, Vol. 142, 441—448, 2014.
2. Sen, S. & Kalita, J. C. Tackling Problems of Moving Boundaries Using the Biharmonic Approach, *International Journal for Computational Methods in Engineering Science & Mechanics*, Vol. 59, p 309—321. 2014, Taylor & Francis, UK.

Courses offered in M. Sc. in Mathematics:

First Semester

Course Code	Course Title	Cr.
MS 401	Abstract Algebra	4
MS 403	Linear Algebra	4
MS 405	Real Analysis	4
MS 411	Computer Programming	4
MS 421	Computer Laboratory	2
	CBCT-I	3

Second Semester

Course Code	Course Title	Cr.
MS 406	Complex Analysis	4
MS 408	Topology	4
MS 414	Ordinary Differential Equations	4
MS 416	Numerical Analysis	3
MS 418	Measure Theory	3
MS 424	Computer Laboratory	1
	CBCT -II	3

Third Semester

Course Code	Course Title	Cr.
MS 410	Functional Analysis	4
MS 507	Partial Differential Equations	4
MS 511	Probability	3
MS 515	Project	3
	Elective -I	4
	CBCT-III	3

Fourth Semester

Course Code	Course Title	Cr.
MS 501	Classical Mechanics	4
MS 503	Mathematical Programming	3
MS 508	Mathematical Methods	4
	Elective -II	4
	CBCT -IV	3

Elective Courses are to be chosen from the electives offered by the Department in a particular semester .

Courses Offered in Integrated M. Sc. in Mathematics:

First Semester

Course Code	Course Title	Cr.
PI 101	Physics -I	3
CI 101	Chemistry -I	4
BI 101	Biology -I	3
MI 101	Mathematics -I	3
	CBCT Elective -I	3
	CBCT Elective – II	3

Second Semester

Course Code	Course Title	Cr.
PI 102	Physics -II	3
CI 102	Chemistry -II	4
BI 102	Biology -II	3
MI 102	Mathematics -II	3
	CBCT Elective -III	3
	CBCT Elective– IV	3
NS 102	National Service Scheme	2

Third Semester

Course Code	Course Title	Cr.
MI 207	Co-ordinate Geometry	3
MI 211	Numerical Methods and Integrals	3
MI 213	Set Theory and Mathematical Logic	3
MI 215	Classical Algebra	3
PI 211	Quantum Physics	3
	CBCT Elective –V	3

Fourth Semester

Course Code	Course Title	Cr.
MI 210	Elementary Abstract Algebra	3
MI 212	Introductory Statistics	3
MI 214	Linear Space and Linear Programming	3
MI 216	Elementary Real Analysis	3
PI 216/ BI 224	Thermodynamics and Optics / Ecology and Environmental Biology	3/3
	CBCT Elective– VI	3

Fifth Semester

Course Code	Course Title	Cr.
MI 208	Linear Algebra	4
MI 209	Statics and Dynamics	3
MI 301	Computer Programming+	4
MI 303	Real Analysis	4
MI 309	Computer Laboratory	2
	CBCT Elective –VII	3

Sixth Semester

Course Code	Course Title	Cr.
MI 304	Topology	4
MI 308	Theory of Ordinary Differential Equations	4
MI 312	Elementary Complex Analysis	3
MI 410	Measure Theory	3
MI 504	Mathematical Programming	3
	CBCT Elective -VIII	3

Seventh Semester

Course Code	Course Title	Cr.
MI 305	Abstract Algebra	4
MI 306	Functional Analysis	4
MI 402	Advanced Analysis	3
MI 409	Probability and Mathematical Statistics	3
MI 411	Partial Differential Equations	4
	CBCT Elective -IX	3

Eighth Semester

Course Code	Course Title	Cr.
MI 302	Numerical Analysis +	4
MI 307	Elementary Number Theory	4
MI 310	Computer Laboratory	2
MI 408	Complex Analysis	4
MI 410	Mathematical Methods	4
	CBCT Elective– X	3

Ninth Semester

Course Code	Course Title	Cr.
MI 405	Graph Theory	4
MI 406	Probability Theory	4
MI 407	Mathematical Software	2
	Open Elective -I	4
	Open Elective -II	4
MI 515	Project (to be continued to 10th Semester)	0
	CBCT Elective -XI	3

Tenth Semester

Course Code	Course Title	Cr.
MI 401	Classical Mechanics	4
	Open Elective -III	4
	Open Elective -IV	4
MI 515	Project	8

Note :1. CBCT Electives are to be chosen from the list of CBCT courses offered by other departments in a particular semester.

2. A student has to choose the open electives offered by the Department of Mathematical Sciences in a particular semester.

Course offered in Integrated B. Sc. B. Ed. in Mathematics

*The curriculum and syllabi for B. Sc. B. Ed. has been going through a major revision. The approved course structure and detail syllabi shall be made available in the University Web-site.*

For more information one can visit the departmental website http://www.tezu.ernet.in/dmaths

MECHANICAL ENGINEERING
(Year of Establishment: 2006)

The Department of Mechanical Engineering was established in the year 2006 under the School of Engineering for offering B. Tech programme in Mechanical Engineering. Subsequently, M. Tech and Ph.D. programmes were started in the year 2013. The vision of the department is to emerge as a centre of excellence producing quality engineers and contributing innovative research for greater benefit of the society and the corporate world.

Programmes offered:

1. B. Tech in Mechanical Engineering.
2. M. Tech in Mechanical Engineering (Specialization: Applied Mechanics).
3. Ph.D.

Both the B. Tech. in Mechanical Engineering and M. Tech. in Mechanical Engineering (Specialization: Applied Mechanics) programmes are approved by the AICTE.

Faculty and Areas of Interest :

Associate Professors	
*Datta, D., Ph.D.(IITK)-HoD	*Design/ Optimization.*
*Gogoi, T. K., Ph.D. (TU)	*Thermal, Energy and Environment Engineering.*
Dutta, P. P., Ph.D. (TU)	*Energy and Thermal Engineering.*
Assistant Professors	
Kalita, P., M. Tech., (BHU)	*Computational Fluid Dynamics , High Speed Flows.*
Dutta, P. P., M. Tech. (BIT Mesra)	*CAD, Laser Forming, Mechatronics, Soft Computing.*
Kirtania, S., M. Tech (IITG)	*Composite Materials, Carbon Nanotubes, Carbon Nanotubes-based Composites, Finite Element Method, Fracture Mechanics.*
Haloi, P., ME (GU)	*Fluid and Thermal Engineering.*
*Banerjee, S., Ph.D. (IITG)	*Materials and Manufacturing.*
Bardalai, M., ME(GU)	*Thermal Engineering, Renewal Energy Conversion.*
Kashyap, S., M.Sc. (Engg.) (University of Alberta, Canada)	*Manufacturing and Materials Science.*
Kalita, Z., ME (AIT)	*Mechatronics.*
Bhadra, R., ME (BESUS)	*Manufacturing, Production Engineering.*
Chowdhury, B., ME (GU)	*Thermal Engineering.*

***Recognized Supervisor**

LEGENDS: ***TU****-Tezpur University,* ***BHU****- Banaras Hindu University,* ***GU****-Gauhati University,* ***AIT****- Asian Institute of Technology, Bangkok,* ***IITK****-Indian Institute of Technology, Kanpur,* ***BIT****- Birla Institute of Technology,* ***IITG****- Indian Institute of Technology, Guwahati.* ***BESUS****– Bengal Engineering and Science University, Shibpur,* ***HoD****- Head of the Department.*

Facilities

CAD Laboratory:

This laboratory is equipped with computers having server based installed software such as ANSYS 12.0 version, FLUENT 6.3 teaching version and Pro-E Wildfire 3.0 version. At present the laboratory has two servers and 25 workstation computers for use of both student and academic staff.

Fluid Mechanics Laboratory:

This laboratory is equipped with hydraulic bench, discharge through orifice apparatus, Bernoulli's apparatus, flow meter apparatus, impact of jet apparatus, discharge over weir and notch attachments, energy losses in pipelines, Reynolds apparatus and Multi-function measuring instrument (pressure, temperature, velocity, relative humidity. CO, CO_2, concentration) with relevant sensors

Theory of Machine Laboratory:

This laboratory is equipped with universal governor apparatus, static and dynamic balancing equipment, whirling of shaft apparatus, influence of inertia upon velocity and acceleration apparatus, and gyroscope apparatus.

Strength of Materials Laboratory:
This laboratory is equipped with Rockwell hardness testing machine, Brinell hardness tester, Vickers hardness tester, impact testing machine, and universal testing machine with computer interfacing, digital torsion testing machine, rotating fatigue machine, creep machine, thin cylinder testing machine, metallurgical polishing machine and digital LCD microscope.

Material Science Laboratory:
This is a new laboratory which is being developed with equipment such as metal melting furnace, metallographic cutting machine, metallographic sample mounting machine, metallographic automatic polishing machine, ultrasonic cleaner unit, injection molding machine, twin screw extruder, optical microscope, muffle furnace, hot air oven, etc.

IC Engine/Automobile Laboratory:
This laboratory has three setups - computerized single cylinder 4 stroke diesel engine, diesel smoke meter, and a petrol car (Model ESTEEM).

Kinematics Laboratory:
In this laboratory, there are various types of models for demonstration such as models of different mechanisms, shaper model, clutch model, Oldham coupling model, gear drive, belt drive, chain drive, etc.

Turbo-Machinery Laboratory:
One centrifugal pump unit and one plunger pump unit with computer interface has been installed in this laboratory. One turbine service unit and a Francis turbine with computer interface have also been installed recently.

Vibration Laboratory:
This laboratory has one universal vibration apparatus which can be used for performing thirteen numbers of experiments.

Metrology laboratory:
Instruments such as plunger type dial indicator, lever type dial indicator, external micrometer, universal bevel protractor, vernier caliper, sine vice, slip gauge, surface plate, surface roughness tester, digital micrometers of different types of various ranges, depth gauge, filler gauge, pitch gauge, and radius gauge are available in this laboratory.

Thermal and Renewable Energy Laboratory:
The equipment available in this laboratory are biodiesel manufacturing unit, bomb calorimeter, viscometer, density meter, flash and fire point apparatus, distillation apparatus, carbon residue apparatus, pour point and cloud point apparatus, copper strip corrosion apparatus, various cut section models (diesel engine, gear box, differential gear, steam engine models, pneumatic cylinder model), fixed bed pyrolysis oil production set-up (under installation), biomass gasifier, 100% producer gas engine generator test rig, gas chromatograph, hot wire anemometer, micro-manometer, fluidized bed dryer, pitot tube, and different energy efficient solar air heater.

Central Workshop:
This is a central facility well equipped with CNC lathe machine, CNC milling machine, high speed precision lathe machine, conventional lathe machines, shaping machine, vertical milling machine, horizontal milling machine, universal milling machine, high precision surface grinding machine, universal tool and cutter grinder, radial drilling machine, pillar drilling machine, double ended pedestal grinding machine, slotting machine, arc welding machine, oxyacetylene gas welding setup, TIG welding and MIG welding machine, power hacksaw, sheet bending roller machines, plate bending machine, manual shearing machine, cutting force dynamometer, etc.

Research Activity
Number of journal papers published in last one year (2014): **19**

Research Projects:
A number of R &D projects of total approximate amount of Rs. 1 crore, funded from external agencies are currently running in the department.

Selected publications:

1. Kalita, Z. and Datta, D, Solving the bi-objective corridor allocation problem using a permutation –based genetic algorithm. Computers and Operation Research, 52 (Part-A), 123-134, 2014.

2. Gogoi, T. K., Sarmah, P. and Debnath, D. Energy and energy based performance analysis of a solid oxide fuel cell integrated combined cycle power plant. Energy conversion and Management, 86, 507-519, 2014.

Courses offered in M. Tech in Mechanical Engineering (Specialization: Applied Mechanics)

First Semester

Course Code	Course Title	Cr.
ME 501	Advanced Solid Mechanics	4
ME 541	Advanced Fluid Mechanics	4
ME 561	Experimental Methods for Solid and Fluids	5
	CBCT-I	3
	Elective-I	
	Elective– II	

Second Semester

Course Code	Course Title	Cr.
ME 502	Finite Element Methods	4
ME 572	Advanced Engineering Materials	3
ME 592	Term Paper	2
	CBCT– II	3
	CBCT– III	3
	Elective-III	
	Elective– IV	

Third and Fourth Semester

Course Code	Course Title	Cr.
ME 600	M. Tech. Thesis	24

Elective Courses

Course Code	Course Name	Cr.
ME 503	Mechanics of Composite Materials	4
ME 504	Failure Analysis of Materials	3
ME 505	Advanced Dynamics	4
ME 506	Theory of Elasticity and Plasticity	3
ME 507	Theory of Plates & Shells	3
ME 508	Continuum Mechanics	3
ME 537	Applied Computational Methods	4
ME 538	Computer - Aided - Design in Engineering	4

Course Code	Course Name	Cr.
ME 539	Optimization Techniques in Engineering	3
ME 540	Evolutionary Algorithms for Optimum Design	3
ME 542	Computational Fluid Dynamics	4
ME 543	Compressible Flow	4
ME 544	Turbulent Shear Flow	3
ME 545	Viscous Fluid Flow	3
ME 546	Fluid Transportation Systems	3
ME 547	Two Phase Flow	3

For more information one can visit the departmental website http://www.tezu.ernet.in/dmech

MOLECULAR BIOLOGY AND BIOTECHNOLOGY

(Year of Establishment: 1997)

The Department of Molecular Biology and Biotechnology (MBBT) was established in the year of 1997 with the objectives to create quality human resource and to engage in quality research work in the challenging and frontier areas of modern biotechnology. The Department has close linkage with the industry and academic institutes of the country.

The current research activities of the Department include molecular genetic analysis of various human diseases/ disorders, microbial, environmental and petroleum biotechnology, snake venom biochemistry, enzymology and enzyme technology, medicinal plants, immunology, immune genetics and evolutionary genetics, computational biology, nano-biotechnology, plant microbe interactions, cancer genetics and chemoprevention, and molecular virology.

Programmes offered:

1. Integrated M. Sc. in Biosciences and Bioinformatics
2. M. Sc. in Molecular Biology and Biotechnology
3. Ph. D. in Molecular Biology and Biotechnology

 # The students admitted to the M. Sc. programme are eligible for monthly fellowship of Rs. 3000/- only (for detailed information please visit http://www..tezu.ernet.in/dmbbt) by the DBT supported M. Sc. in Biotechnology teaching programme.

Professors	
*Konwar, B.K., Ph.D. (IC), On-lien as V.C of NU	*Petroleum Biotechnology. Plant Biotechnology, Genetic Engineering, Metagenomics, Bioenergy.*
*Buragohain, A.K., Ph.D. (IC) On-lien as V.C of DU	*Drug Discovery from Medicinal Plants, Diatom Nanotechnology, Plant Biotechnology, Evolutionary Genomics, Petroleum Biotechnology.*
*Mukherjee, A.K., Ph.D. (BU)	*Snake Venom Biochemistry and Microbial Biotechnology.*
*Baruah, S., Ph.D. (PGIMER- Chandigarh)	*Innate Immunity and Immunogenetics (Heterogeneity and Evolution of Immune Responses).*
Associate Professors	
*Ray, S.K., Ph.D. (CCMB- JNU)- HoD	*Molecular Plant- Microbe Interactions, Molecular Evolution.*
*Mandal, M., Ph.D. (IGIB- DU^)	*Probiotics and Nutrition, Microbial Biofilm, Bioenergy.*
*Ramteke, A., Ph.D. (JNU)	*Cancer Genetics and Chemoprevention.*
*Doley, R., Ph.D. (TU)	*Anti Haemostatic Proteins from Snake Venom and Hematophagus Insect.*
Assistant Professors	
*Medhi, T., Ph.D. (IITKgp)	*Enzymology and Bioprocess Engineering.*
*Kalita, E., Ph.D. (NIPGR -GU)	*Nanobiotechnolog and Plant Functional Biology.*
*Ponnam, S.P.G., Ph.D. (LVPEI– HU)	*"Molecular Genetics" and "Disease Biology" of Various Human Diseases / Disorders.*
*Jha, A, N., Ph.D. (IISc.)	*Computational Biophysics, Bioinformatics.*
*Mukhopadhya, R., Ph.D. (IACS- JU)	*Cellular and Molecular Biology (Sub Areas: Inflammation Cardiovascular Disease), Microbial Biotechnology.*
*Saha, S., Ph.D. (IISc)	*Cellular and Molecular Biology (Protein Arginylation and its role in Cellular Function, Obesity).*
Namsa, N.D., Ph.D. (IISc.)	*Molecular Biology of Rotavirus.*
Dasgupta S., Ph.D. (VB)	*Insulin Resistance and Type - 2 Diabetes.*
*Satish Kumar, M.V., Ph.D. (IITG)	*Computational Biotechnology and Bioinformatics.*
Saikia, J. P., Ph.D. (TU)- Ad-hoc	*Plant Biotechnology.*

*** Recognized Supervisor**

*LEGENDS: **IC**- Imparial College, London, **NU**-Nagaland University, **DU**-Dibrugarh University, **BU**-University of Burdwan, **PGIMER**- Post Graduate Institute of Medical Education and Research ,**CCMB–** Centre for Cellular and Molecular Biology **IGIB–** Institute of Genomics and integrated Biology, **JNU**-Jawaharlal Nehru University, New Delhi, **TU**-Tezpur University , **IITKgp**- Indian Institute of Technology, Kharagpur, **NIPGR** - National Institute of Plant Genome Research, **GU**- Gauhati University, , **LVPEI**– LVPrasad Eye Institute , **HU:** University of Hyderabad, **IISc**- Indian Institute of Science, Bangalore , **IACS**– Indian Association of Cultivation Sciences, **JU**- Jadabpur University, **VB**- Visva Bharati, Santiniketan **DU^**- Delhi University,, **IITG**- Indian Institute of Technology, Guwahati, **HoD**-Head of the Department.*

Facilities

The Department has several sophisticated instruments like Automated DNA sequencer, UHPLC, FPLC, HPLC systems, Real Time PCR, Bioanalyzer, Spectrofluorimeter, Immunofluorescence Microscope, GC mass spectrometer and Fermenter. Department is equipped with a cold room, animal and plant cell culture facilities, animal experimentation laboratory and Bioinformatics facility. Apart from this, individual faculty research laboratories are well equipped to carry out advance research.

Research Activity

No. of papers published in the year 2014 : **109**

No. of ongoing research projects : **22**

The Department of MBBT is supported by UGC SAP (DRS-I/DRS-II), DST-FIST and DBT strengthening project. Department also houses Bioinformatics infrastructure facility (DBT-BIF) for computational research and DBT-HUB to impart training on molecular biology to students and faculty members. The Department has ONGC-Centre for Petroleum Biotechnology.

Selected Publications :

1. Ray SK, Baruah VJ, Satapathy SS, Banerjee R. (2014) Co-translational protein folding is revealing the selective use of synonymous codons along the coding sequence of a low expression gene. J. Genet. 93: 613-617.

2. Gupta K, Barua S, Hazarika S. N, Manhar A. K, Nath D, Karak N, Namsa N D, Mukhopadhyay R, Kalia V.C, Mandal M (2014) Green silver nanoparticles: enhanced antimicrobial and antibiofilm activity with effects on DNA replication and cell cytotoxicity. RSC Adv. 4: 52845–52855.

Courses offered in M. Sc. in Molecular Biology & Biotechnology:

First Semester

Course Code	Course Title	Cr.
BT 401	Biochemistry	3
BT 402	Cell and Developmental Biology	3
BT 403	Molecular Biology	3
BT 404	Analytical Techniques	3
BT 405	Biostatistics and Computer Applications	3
BT 406	Seminar / Journal Club / Assignment	1
BT 407	Lab –I : Biochemistry and Analytical Techniques	3
BT 408	Lab-II: Molecular Biology	3
	CBCT	3

Second Semester

Course Code	Course Title	Cr.
BT 411	Immunology	3
BT 412	Microbiology and Industrial Applications	3
BT 414	Genetics	3
BT 415	Genomics and Proteomics	3
BT 416	Seminar / Journal Club / Assignment	1
BT 417	Lab-III: Immunology	2
BT 418	Lab-IV: Microbiology	2
BT 419	Lab-V: Genetic Engineering	2
BT 451	Genetic Engineering	3

Third Semester

Course Code	Course Title	Cr.
BT 420	Bioprocess Engineering and Technology	3
BT 421	Immunotechnology	2
BT 422	Molecular Virology	2
	Elective -I	3
	Elective -II	3
BT 424	Lab -VI : Bioprocess Engineering and Technology	3
BT 425	Project Proposal Presentation	1
	CBCT	3

Elective Courses
(Any Two from the following Courses)

Course Code	Course Title	Cr.
BT 429	Microbial Technology	3
BT 433	Animal Biotechnology	3
BT 435	Plant Biotechnology	3
BT 437	Environmental Biotechnology	3
BT 439	Nanobiotechnology	3
BT 450	Evolutionary Genetics	3

Fourth Semester

Course Code	Course Title	Cr.
BT 427	Project Work	12
	CBCT	3

Courses offered in Integrated M. Sc. in Bioscience and Bioinformatics:

First Semester

Course Code	Course Title	Cr.
PI 101	Physics -I	3
CI 101	Chemistry -I	4
BI 101	Biology -I	3
MI 101	Mathematics - I	3
	CBCT Elective -I	3
	CBCT Elective -II	3

Second Semester

Course Code	Course Title	Cr.
PI 102	Physics -II	3
CI 102	Chemistry -II	4
BI 102	Biology -II	3
MI 102	Mathematics -II	3
	CBCT Elective -III	3
	CBCT Elective -IV	3
NSS 102	National Service Scheme	2

Third Semester

Course Code	Course Title	Cr.
MI 211	Numerical Methods and Integrals	3
BI 221	Biochemistry	3
BI 223	Cell Biology	3
BI 225	Plant and Animal Physiology	3
BI 227	Lab for Biochemistry and Cell Biology	2
CI 201	Chemistry -III	3
	CBCT Elective -V	3

Fourth Semester

Course Code	Course Title	Cr.
MI 212	Introductory Statistics	3
BI 222	Microbiology	3
BI 224	Ecology and Environmental Biology	3
BI 226	Basic in Biocomputing	3
BI 228	Laboratory in Microbiology	2
CI 202	Chemistry -IV	3
	CBCT Elective -VI	3

Fifth Semester

Course Code	Course Title	Cr.
BI 321	Molecular Biology	3
BI 323	Development Biology	3
BI 325	Analytical Techniques	3
BI 327	Bioprogramming and Biostatistics	3
BI 329	Advance Biochemistry	2
BI 331	Lab on Enzymology	2
BI 333	Lab on Molecular Biology	2

Sixth Semester

Course Code	Course Title	Cr.
BI 322	Genetics	3
BI 324	Genetics Engineering	3
BI 326	Immunology	3
BI 328	Biological Database Management	2
BI 330	Bioinformatics Software and Applications	2
BI 332	Credit Seminar	1
BI 334	Lab on Immunology	2
BI 336	Lab on Genetic Engineering	2

Seventh Semester

Course Code	Course Title	Cr.
BI 421	Structural Bioinformatics	3
BI 423	Cell and Tissue Culture	3
BI 425	Computational Biology	3
BI 427/ BI 429/ BI 431/ BI 433	Elective -I : Animal Biotechnology / Microbial Biotechnology / Plant Biotechnology / Nano Biotechnology	3
BI 435	Fermentation and Bioprocess Engineering	2
BI 437	Lab on Cell and Tissue Culture	2
BI 439	Lab on Bioprocess Engineering	2
	CBCT Elective -VII	3

Eighth Semester

Course Code	Course Title	Cr.
BI 422	Genomics and Proteomics	3
BI 424	Bioethics, Biosafety and IPR	2
BI 426	Elective -II : Metagenomics / Taxinology/ Pharamcogenomics / Evolutionary Genomics	3
BI 434	Virology	2
BI 436	Seminar and Mini Review	2
BI 438	Lab on Applied Bioinformatics	3
BI 440	Lab on Genomics and Proteomics	3
	CBCT Elective -VIII	3

Ninth Semester

Course Code	Course Title	Cr.
BI 521	Project -I	16
BI 523	Seminar	1
	CBCT-IX	3

Tenth Semester

Course Code	Course Title	Cr.
BI 522	Project -II	16
BI 524	Project Evaluation Seminar	2

Note: 1. CBCT Elective-I to CBCT Elective-VI are to be chosen from the list of CBCT courses given below.

Course Code	Course Title	Cr.
CS 535	Introduction to Scientific Computing	3
EG 101	Communicative English	3
ES 102	Elementary Environmental Science	3
EG 102	Communicative English -II	3
SC 102	Basic Sociology	3
ES 542	Laboratory Guidance and Safety	3
BM 101	Elementary Economics	3

Course Code	Course Title	Cr.
CL 121	Basic Chinese -I	3
FL 101	Basic French -I	3
GL 101	Basic German -I	3
DM 301	Disaster Management	3
CL 122	Basic Chinese -II	3
FL 102	Basic French -II	3
GL 102	Basic German -II	3

2. CBCT Elective-VII to CBCT Elective-IX are to be chosen from the general list of CBCT courses available for that particular semester.

For more information please visit the departmental website http://www.tezu.ernet.in/dmbbt

PHYSICS
(Year of Establishment: 1998)

Department of Physics offers studies in various fields of physics leading to postgraduate and doctoral degree. The research interests of the faculty falls in various areas of condensed matter physics, photonics, high energy physics, microwaves, plasma physics, astrophysics, neutrino physics and nanoscience & technology. The Department is also working in association with other institutes like IUCAA, Pune, CMACs, Bangalore, IIT, Guwahati, CAT, Indore, VECC, Kolkata, SAMEER, Mumbai, University of Southampton, UK, Queen's University, Belfast, University of Tokyo, Japan, Max Planck Institute, Germany and others.

The department provides a conducive and rigorous research environment. Course work in the chosen research areas is mandatory for all the doctoral students.

Programmes offered

1. Integrated B. Sc. B. Ed.
2. Integrated M. Sc. in Physics.
3. M. Sc. in Physics.
4. M. Sc. in Nanoscience and Technology.
5. Ph. D.

Faculty and Areas of Interest :

Professors	
Sirohi, R.S., Ph.D. (IITD), Bharat Ratna Lokapriya Gopinath Bordoloi Chair Professor	*Optics, Optical Instrumentation, Laser Application, Optical Metrology.*
*Choudhury, A., Ph.D. (OU), Pro V.C.	*Condensed Matter Physics, Laser Physics, Quantum Electronics, Nanoscience.*
*Kumar, A., Ph.D. (IITK)- Dean SoS	*Condensed Matter Physics, Solid State Ionics.*
*Sarma, J. K., Ph.D. (GU)	*Theoretical High Energy Physics, Particle Physics.*
*Bhattacharyya, N. S., Ph.D. (DU^)	*Microwave Devices and EMI Shielding Materials.*
*Das, N., Ph.D. (GU)	*Plasma Physics.*
Associate Professors	
*Ahmed, G. A., Ph.D. (GU)- HoD	*Laser Physics, Optoelectronics.*
*Mohanta, D., Ph.D. (TU)	*Condensed Matter Physics and Nanoscience.*
*Deb, P., Ph.D. (JU)	*Nanoscience and Nanotechnology, Physics of Materials.*
*Karmakar, P. K., Ph.D. (GU)	*Plasma Physics, Astrophysics and Nonlinear Dynamics.*
*Das, M. K., Ph.D. (GU)	*Theoretical High Energy Physics, Nuclear Physics.*
*Nath, P., Ph.D. (GU)	*Fiber Optic Sensors & System, SERS, Biomedical Instrumentation.*
Assistant Professors	
Francis, Ng. K., Ph. D. (GU)	*Particle Physics Phenomenology and Particle Cosmology.*
#Biswas, R., Ph.D. (DU)	*Fiber Optic Instrumentation, PCFs; Geophysical Instrumentation.*
*Pathak, A., Ph.D. (GU^)	*Molecular Astrophysics of Polycyclic Aromatic Hydrocarbons (PAHs), Interstellar Dust (Cosmic Dust), UV Astronomy.*
*Gogoi, R., Ph.D. (GU)	*Infrared Astronomy, High Energy Physics.*
#Borah, D., Ph.D. (IITB)	*Elementary Particle Physics and Cosmology.*
*Das, S.K., Ph.D. (IISc)	*Materials Science.*
Sarmah, R., Ph.D. (IISc)	*Computational Material Science.*
DST Inspire Faculty	
Choudhury, A, J., Ph.D. (GU)	*Low Temperature Plasma Processing*,

*** Recognized Supervisor, # Recognized Co-supervisor**

LEGENDS: ***OU****- Oxford University,* ***GU****-Gauhati University,* ***DU^****-Delhi University,* ***TU****-Tezpur University,* ***JU****-Jadavpur University,* ***DU****- Dibrugarh University,* ***GU^****-Gorakhpur University,* ***IISc****.– Indian Institute of Science, Bangalore,* ***IITK****-Indian Institute of Technology, Kanpur,* ***IITB****-Indian Institute of Technology, Bombay,* ***IITD*** *Indian Institute of Technology, Delhi ,* ***SoS****– School of Science,* ***HoD****– Head of the Department.*

Facilities

The Department has a rich collection of setups and instruments related to photonics, electronics, condensed matter physics and nanoscience at research level in addition to general laboratory instruments for postgraduate teaching in physics. The Department has 25MW pulsed, NdYAG laser, high vacuum coating unit, Xband Microwave Bench, Electrochemical Workstation, LCR HiTester Meter, AFM,PPMS, SEM, XRD, Double Distilled water treatment plant, hot air oven, semiconductor characterization set-up, DSP Kit and UV-VIS spectrophotometer, Millipore water purification system, LBM film deposition unit, FT-IR spectrophotometer as major research equipment. The Department also has high-end computational facility to carry out theoretical and astrophysics research work in addition to a departmental library. The department also offers its facilities to the students of other institutes and inter-departments.

The research activity in the department is also supported by University's Sophisticated Instrument and Analytical Centre (SAIC) and the University Library.

Research Activity

(i) No. of papers published in the year 2014 : **106** **(ii)** No. of ongoing research projects: **19**

The Department of Physics is a UGC SAP Department

Selected publications

1. Ahmed, G. A., & Gogoi, A., Scattering by interstellar graphite dust analog, *Journal of Quantitative Spectroscopy Radiative Transfer*, **146** (2014) 106-112.
2. Boruah, R., Mohanta, D., Choudhury, A., Ahmed, G. A., Inverse surface plasma resonance based effective hydrogen sensing using manoscale palladium films, *Optical Materials*, **39** (2015) 273-277.

Courses offered in M. Sc. in Physics:

First Semester

Course Code	Course Title	Cr.
PH 405	Semiconductor Devices	3
PH 408	Electromagnetic Theory	3
PH 414	Advanced Quantum Mechanics	3
PH 416	Condensed Matter Physics and Material Science	3
PH 450	Physics and Computational Lab	5
	CBCT	3

Second Semester

Course Code	Course Title	Cr.
PH 411	Statistical Physics	3
PH 412	Digital Electronics and Microprocessor	4
PH 417	Advanced Mathematical Physics	3
PH 455	Seminar	2
PH 499	Physics Lab	5
PH 503	Atomic and Molecular Physics	3
	CBCT	3

Third Semester

Course Code	Course Title	Cr.
PH 415	Nuclear Theory and Particle Physics	3
PH 500	Project Work – I	5
	Elective – I	3
	Elective – II	3
	Elective – III	3
	CBCT	3

Fourth Semester

Course Code	Course Title	Cr.
PH 540	Advanced Analytical Techniques	3
PH 599	Project Work –II	8
	Elective -IV	3
	Elective -V	3
	Elective -VI	3

Elective Courses

Course Code	Course Title	Cr.
PH 510	Fiber Optics and Optoelectronics	3
PH 513	Photonic Devices	3
PH 514	Superconductivity and Critical Phenomena	3
PH 517	Physics of Solid State Devices	3
PH 519	Quantum Field Theory	3
PH 520	Modern Particle Physics	3
PH 521	Introduction to Parton Models	3
PH 522	Communication Systems	3
PH 523	Microwaves	3
PH 524	Digital Signal Processing	3

Course Code	Course Title	Cr.
PH 525	Microprocessors and Digital Signal Processing based systems	3
PH 532	Quantum Electrodynamics	3
PH 533	General Theory of Relativity	3
PH 536	Basic Astronomy and Astrophysics	3
PH 537	High Energy and Extragalactic Astrophysics	3
PH 538	Introduction to Cosmology	3
PH 539	Advanced Condensed Matter Physics and Material Science	3
PH 541	Plasma and Astrophysics	3
PH 542	Nanostructures	3
PH 543	Surface Science	3

Courses offered in M. Sc. Nanoscience and Technology:

First Semester

Course Code	Course Title	Cr.
NS 400	Measurement, Analysis and Computational Lab	5
NS 401	Quantum Mechanics	3
NS 404	Basic Polymer Science	3
NS 405	Cell and Molecular Architecture Cells	3
NS 408	Condensed Matter Physics	3
	CBCT	3

Second Semester

Course Code	Course Title	Cr.
NS 402	Electronics	3
NS 410	Nanostructures	3
NS 411	Fundamental of Molecular Biology and Elements of Immunology	3
NS 413	Atomic and Molecular Physics	3
NS 455	Seminar	2
NS 499	Measurement and Analysis Lab	5
	CBCT	3

Third Semester

Course Code	Course Title	Cr.
NS 500	Project Work	5
NS 501	Surface Science	3
NS 502	Optical Properties of Nanostructures	3
NS 504	Biosynthesis of Nanoparticles and Applications	3
NS 507	Electromagnetics Theory	3
	CBCT	3

Fourth Semester

Course Code	Course Title	Cr.
NS 503	Electrical and Magnetic Properties of Nanostructures	3
NS 508	Photonic Devices	3
NS 599	Project Work -II	10

Courses offered in Integrated M. Sc. in Physics:

First Semester

Course Code	Course Title	Cr.
PI 101	Physics -I	3
MI 101	Mathematics -I	3
CI 101	Chemistry –I	4
BI 101	Biology -I	3
	CBCT Elective -I	3
	CBCT Elective -II	3

Second Semester

Course Code	Course Title	Cr.
PI 102	Physics -II	3
MI 102	Mathematics -II	3
CI 102	Chemistry –II	4
BI 102	Biology -II	3
	CBCT Elective -III	3
	CBCT Elective -IV	3
NS 102	National Service Scheme	2

Third Semester

Course Code	Course Title	Cr.
PI 202	Introductory Quantum Mechanics	3
PI 207	Physics Lab -I	4
PI 211	Quantum Physics (For Non Physics Major)	3
PI 301	Mathematical Physics	3
PI 303	Physical and Geometrical Optics	3
PI 311	Waves and Acoustics	3
MI 411	Partial Differential Equations (For Physics Major)	4
	CBCT Elective - V	3

Fourth Semester

Course Code	Course Title	Cr.
PI 204	Atomic and Nuclear Physics	3
PI 208	Physics Laboratory -III	4
MI 212	Introductory Statistics (Common Paper)	3
PI 214	Electronics	3
PI 216	Thermodynamics and Optics (For Non Physics Major)	3
PI 305	Thermodynamics and Statistical Physics	3
PI 308	Laser Physics	3
	CBCT - VI	3

Fifth Semester

Course Code	Course Title	Cr.
PI 203	Classical Mechanics	3
PI 205	Electromagnetism	3
PI 307	Basic Material Science	3
PI 309	Analog Electronics and Communication	3
PI 399	Physics Lab -V	5

Sixth Semester

Course Code	Course Title	Cr.
PI 300	Project	5
PI 302	Digital Electronics and Microprocessors	3
PI 310	Statistical Physics	3
PI 312	Advance Mathematical Physics	3
PI 314	Measurement Physics	3

Seventh Semester

Course Code	Course Title	Cr.
PI 306	Advanced Quantum Mechanics	3
PI 402	Nuclear and Particle Physics	3
PI 403	Electrodynamics	3
PI 405	Semiconductor Devices	3
PI 499	Physics and Computational Laboratory -VI	6
	CBCT Elective –VII	3

Eighth Semester

Course Code	Course Title	Cr.
PI 400	Physics Laboratory - VII	5
PI 408	Molecular Spectroscopy	3
PI 410	Advanced Analytical Technique	3
PI 412	Plasma and Astrophysics	3
PI 450	Seminar	2
	CBCT Elective -VIII	3

Ninth Semester

Course Code	Course Title	Cr.
PI 599	Project -I	8
	Elective - I	3
	Elective - II	3
	Elective -III	3
	CBCT Elective -IX	3

Tenth Semester

Course Code	Course Title	Cr.
PI 500	Project -II	10
	Elective - IV	3
	Elective - V	3
	Elective -VI	3

Elective Courses

Course Code	Course Title	Cr.
PI 501	Quantum Field Theory	3
PI 502	Quantum Electrodynamics	3
PI 503	Introduction to Parton Models	3
PI 504	Modern Particle Physics	3
PI 505	Basic Astronomy and Astrophysics	3
PI 506	Introduction to Cosmology	3
PI 507	Digital Signal Processing	3
PI 508	Digital Communication Systems	3
PI 509	Fiber Optics and Optoelectronics	3
PI 510	Advanced Material Science	3
PI 511	Superconductivity and Critical Phenomena	3
PI 512	Photonic Devices	3

Course Code	Course Title	Cr.
PI 513	Physics of Thin Film	3
PI 514	Physics of Solid State Devices	3
PI 515	High Energy and Extragalactic Astrophysics	3
PI 516	Microprocessors and Digital Signal Processing Based Systems	3
PI 517	Microwave Systems and Antenna Propagation	3
PI 518	General Theory of Relativity	3
PI 519	Surface Science	3
PI 520	Nanostructures	3
PI 521	Fundamentals of Plasma Physics	3
PI 522	Plasma Generation and Diagnostics	3
PI 523	Nonlinear Theory and Introduction to Space and Complex Plasma	3
PI 524	Applications of Plasma Physics	3

Note: Curriculum and Syllabi for Integrated B. Sc. B. Ed. in Physics has been going through a major revision. The same will be made available in the University website in an appropriate time.

For more information one can visit the departmental website http://www.tezu.ernet.in/dphy

SOCIAL WORK
(Year of Establishment: 2014)

The Department of Social Work is among the latest additions to the University. The 2014 batch was the first batch admitted to its post graduate programme.

Programme offered:

1. M.A. in Social Work (two year programme).

Objectives of the course:

1. The creation of a just and equal society which ensures freedom from all forms of oppression and exploitation.
2. To develop human resources for competent and effective professional social work practice, teaching and research with diverse range of individuals, groups and communities by using a framework of social justice and human rights focused on sustainable and participatory development.
3. To impart education and training in Professional Social Work in order to provide human resources in the fields of social welfare, development, and allied areas.
4. To help students develop knowledge, skills, attitudes and values appropriate to the practices of social work profession.
5. To enable students to develop critical thinking and the ability to apply theory to field experience.
6. Evolve an interdisciplinary perspective to enhance understanding of social problems and development issues.

Faculty and Areas of Interest :

Professor	
Kalam, M. A., Ph.D. (UM)	*Minorities, Ethnicity, Migrations.*
Assistant Professors	
Yumnam, V., M. Phil. (JNU)	*Health Systems and Research, Epidemiology of HIV / AIDS and Social Determinants of Health.*
Kalarivayil, R., M. Phil. (JNU)	*Biomedical Governance, Innovation Studies, Science and Technology in Rural Development.*
Saha, A., Ph. D. (NIMHANS)	*Social Work and Mental Health, Psychosocial Care in Disaster Management, Street Children and Application of Social Work Methods.*

LEGENDS: ***UM–*** *University of Madras* ***, JNU–*** *Jawaharlal Nehru University, New Delhi,* ***NIMHANS*** *- National Institute of Mental Health and Neurosciences , Bangalore*

Courses offered in M. A in Social Work:

First Semester

Course Code	Course Title	Cr.
SW 401*	Understanding Society	2
SW 402*	Human Behaviour and Social Environment	2
SW 403*	Political Economy and Development	2
SW 411	Social Work Profession	2
SW 412	Social Work Methods: Working with Individuals and Families	2
	CBCT-I	3
	Elective -I	2
	Elective -II	2
SW 430	Fieldwork	8

Second Semester

Course Code	Course Title	Cr.
SW 431	Social Work Methods: Work with Groups	2
SW 432	Social Work Methods: Work with Communities	2
SW 433	Research and Statistics	4
SW 434	Development Administration and Governance	2
	CBCT-II	3
	Elective -III	2
SW 450	Fieldwork	8

* Any two of the Foundation courses SW 401/402/403 are to be chosen.

Elective-I and Elective-II are to be chosen from the following courses

Course Code	Course Title	Cr.
SW 421	Community Health	2
SW 422	Social Work with Children	2
SW 423	Literacy and Education	2

Elective-III : One to be chosen from the following courses

Course Code	Course Title	Cr.
SW 441	Gender Issues	2
SW 442	Environment and Ecology	2
SW 443	Work with Older Persons	2

Third Semester

Course Code	Course Title	Cr.
SW 501	Management of Non-Profit Organizations	2
SW 502	Social Policy and Planning	2
	CBCT-III	3
	Elective A/B/C	2+2
	Elective D	2
SW 549	Dissertation	4
SW 550	Fieldwork	8

Fourth Semester

Course Code	Course Title	Cr.
SW 551	Social Advocacy and Social Action	2
	CBCT-IV	3
	Elective A/B/C	2+2
	Elective D	2+2
SW 598	Dissertation	4
SW 599	Fieldwork	8

Elective Courses for third semester:

Both the Courses from any of Elective group A, B or C and any one course from Elective group D

	Course Code	Course Title	Cr.
ELECTIVE (A)	SW 511	Social Work and Mental Health	2
	SW 512	HIV and Social Work Practice	2
ELECTIVE (B)	SW 521	Urban Community Development	2
	SW 522	Rural and Tribal Community Development	2
ELECTIVE (C)	SW 531	Occupational Social Work	2
	SW 532	Organizational Behavior	2
ELECTIVE (D)	SW 541	Personality Development	2
	SW 542	Development Communication	2
	SW 543	Human Rights	2

Elective Courses for fourth semester:

Both the Courses from any of Elective group A, B or C and any two courses from Elective group D

	Course Code	Course Title	Cr.
ELECTIVE (A)	SW 561	Therapeutic Counseling	2
	SW 562	Hospital Administration	2
ELECTIVE (B)	SW 571	Disaster Management	2
	SW 572	Peace Education and Conflict Resolution	2
ELECTIVE (C)	SW 581	Labour Legislation	2
	SW 582	H.R. Practices	2
ELECTIVE (D)	SW 591	Criminology and Correctional Administration	2
	SW 592	Disability Studies	2
	SW 593	Corporate Social Responsibility	2

For more information one can visit the departmental website http://www.tezu.ernet.in/dsw

SOCIOLOGY
(Year of Establishment: 2006)

The Department of Sociology at Tezpur University was established in 2006 with a Masters programme. Subsequently, it launched a Ph.D. programme in 2008. The Department is dedicated toward creating competent and socially sensitive postgraduates through rigorous teaching/training programmes, research and extension activities. The faculty members of the Department have a wide range of interests and expertise and are currently engaged in research in areas such as Development, Education, Environment, Ethnic Conflicts, Governance, Health, Migration, Social Movements, Science Studies and so on. The curriculum lays emphasis on teaching and learning of general concerns of sociology as well as issues of sociological significance in northeastern India which constitute a special focus of the teaching and research of the Department. The students pursuing their Masters in the Department not only have to learn critical approaches and perspectives in the classroom but are also encouraged to participate in short field visits during vacations as part of their mandatory research projects. The Department also takes care to expose the students to the prevailing social realities through activities such as outreach programmes, regular film screening, seminars and other programmes in collaboration with other social organizations.

Programmes offered

1. M. A. in Sociology
2. Ph. D.

Faculty and Areas of Interest :

Professors	
Kalam, M.A., Ph.D. (UM)	*Migration, Identity Politics, Ethnicity, Environment and Society.*
*Sharma, C.K., Ph.D.(DU^)	*Social Development, Culture and Media Studies, Environmental Sociology, Nationalism.*
Associate Professors	
*Deka, R., Ph.D. (DU)	*Sociological Theories, Sociology of Movement, Agrarian Sociology.*
*Kikhi, K., Ph.D. (NEHU)-HoD	*Research Methodology, Gender and Society, Sociology of Northeast India, Tribal Studies.*
Assistant Professors	
Das, A.K., Ph.D. (TU)	*Sociology of Development, Sociology of Health and Illness, Sociology of Governance.*
*Sumesh, S. S., Ph.D. (UK)	*Research Methods, Social Stigma and Exclusion, Community Health, Environmental Movements.*
Goswami, N., Ph.D. (IITK)	*Sociology of Education, Identity of Politics, Multiculturalism.*
Das, S., M. Phil. (JNU)	*Gender Studies, Sociology of North East India.*
Ray, S., M. Phil. (DU^)	*Sociology of Science and Sociology of India.*
Shimreiwung, A. S., Ph.D. (JNU)	*Sociology of Religion, Environmental Sociology, Sociology of Music.*

*** Recognized Supervisor**

LEGENDS: ***UM****-University of Madras,* ***DU^****-Delhi University,* ***DU****-Dibrugarh University,* ***UK****-University of Kerela,* ***NEHU****-North Eastern Hill University, Shillong* ***IITK****-Indian Institute of Technology, Kanpur ,* ***JNU****-Jawaharlal Nehru University , New Delhi.* ***TU****-Tezpur University,* ***HoD****-Head of the Department.*

Facilities

The Department has a seminar cum screening hall with projection facilities and audio-visual teaching aids. Selected books and photocopied materials of seminal contributions in sociology are available in the Departmental Library. The Department also has a small Computer Laboratory for the use of students and research scholars.

Research Activity
No. of papers published in the year 2014: **09**

No. of ongoing research projects: **06**

Selected Publications

1. Sharma, C.K. & Sarma, I, 2014. "Issues of Conversion and Livelihood in a forest Village of Ässam" International Journal of Rural Management, Vol. 10 No. 1pp 47-68, SAGE Publication.

2. Kalam, M. A. 2014 "Indian Model Managing Diaspora (Non-resident Indian)" in potential and Prospects of Pakistani Diaspora, Islamabad Policy Research Institute, Pakistan and Hanns Seidel Foundation, Germany, pp 160-173.

Courses offered in M. A. in Sociology:

First Semester

Course Code	Course Title	Cr.
SC 411	Classical Sociological Traditions	4
SC 412	Research Methodology	4
SC 413	Sociology of Family and Kinship	4
SC 414	Sociology of India	4
	CBCT-I	3

Second Semester

Course Code	Course Title	Cr.
SC 415	Contemporary Theoretical Perspectives in Sociology	4
SC 416	Economic Sociology	4
SC 417	Social Stratification	4
	Elective - I	3
	CBCT-II	3

Third Semester

Course Code	Course Title	Cr.
SC 510	Political Sociology	4
SC 511	Sociology of Development	4
SC 512	Sociology of Northeast India	4
	Elective -II	3
	CBCT- III	3

Fourth Semester

Course Code	Course Title	Cr.
SC 513	Sociology of Religion	4
SC 514	Social Movements in India	4
SC 515	Project	8
	Elective -III & IV	3
	CBCT - IV	3

Elective—I (Any One from the following Courses)

Course Code	Course Title	Cr.
SC 431	Fieldwork Practicum	3
SC 432	Social Statistics	3
SC 433	Population and Society	3

Elective—II (Any One from the following Courses)

Course Code	Course Title	Cr.
SC 550	Gender and Society	3
SC 551	Industrial Sociology	3
SC 552	Sociology of Health and Illness	3

Elective III & IV (Any Two from the following Courses)

Course Code	Course Title	Cr.
SC 553	Environmental Sociology	3
SC 554	Sociology of Culture and Mass Media	3
SC 555	Sociology of Governance	3

Course Code	Course Title	Cr.
SC 556	Sociology of Education	3
SC 557	Identity and Violence	3
SC 558	Sociology of Science	3

For more information one can visit the departmental website http://www.tezu.ernet.in/dsoc

ANNEXURE- I

IMPORTANT DATES

1	**Issue of Printed Application Form for B. Tech. Programmes**	February 20 to April 26, 2015
2	**Issue of Printed Application Form for other Programmes**	February 20 to April 01, 2015
3	**Online application remains open for B. Tech. Programmes**	February 20 to May 06, 2015
4	**Online application remains open for other Programmes**	February 20 to April 07, 2015
5	**Last date of receipt of Application at the office of the Controller (for B. Tech Programmes)**	May 07, 2015
6	**Last date of receipt of Application at the relevant Department (for non– B.Tech programes)**	April 08, 2015
7	**Issue of Admit card (wherever applicable)**	April 22, 2015
8	**Tentative date of release of the list of eligible candidate for Entrance Examination in the University website**	April 29, 2015
9	**Entrance Examination schedule**	**May 29 to May 31, 2015**
10	**Admission Test for Ph. D. Programmes**	**June 16 and 19, 2015**
11	**Dates for Group Discussion and Personal Interview *(wherever applicable)***	June 17 and 18, 2015
12	**Commencement of New Session**	July 27, 2015

*** No complaint shall be entertained after the specified date**

ANNEXURE II

SCHEDULE OF ENTRANCE EXAMINATIONS

1. All P.G. Degree/Diploma/Certificate Programmes/Integrated M.Sc./M.A./M.Com. /B.Sc.B.Ed. /B.A.B.Ed.:

May 29, 2015 (10 AM to 12 Noon)	**May 29, 2015 (2 PM to 4 PM)**
• M.A. in Cultural Studies • M.Sc. in Chemistry • M.A./M.Sc. in Mathematics • Integrated M.A. in English/Integrated B.A.B.Ed. • Integrated M.Sc./Integrated B.Sc.B.Ed. in Mathematics • M.Sc. in Nanoscience and Technology	• M.Tech. in Bioelectronics • P.G. Diploma in Tourism Management • Integrated M.Sc./Integrated B.Sc.B.Ed. in Physics • M. Tech. in Mechanical Engineering • Integrated M.Com.
May 30, 2015 (10 AM to 12 Noon)	**May 30, 2015 (2 PM to 4 PM)**
• Integrated M.Sc./Integrated B.Sc.B.Ed. in Chemistry • M.A. in Hindi • M.A. in Sociology • M.Sc. in Environmental Science • P.G. Diploma in Mobile and Multimedia Communication • Certificate in Chinese	• M.Tech. in Electronics Design and Technology • Post B. Sc. Integrated M. Tech. in Food Engineering and Technology • M.A. in Mass Communication and Journalism • M. Tech. in Polymer Science and Technology • Integrated M.Sc. in Bioscience and Bioinformatics
May 31, 2015 (10 AM to 12 Noon)	**May 31, 2015 (2 PM to 4 PM)**
• M. Tech. in Food Engineering and Technology • MA in Linguistics and Language Technology • M.A. in Social Work • Master of Computer Application (MCA) • M. Tech. in Energy Technology	• M. Tech. in Information Technology • M.Sc. in Physics • M.A. in English • M.Sc. in Molecular Biology and Biotechnology (for NE domicile) • P.G. Diploma in Translation (Hindi)

2. B.Tech. Programme: The admissions to all B.Tech. Programmes of Tezpur University will be based on the merit list prepared using JEE (Main) - 2015 All India Rankings. For further details of JEE (Main) – 2015 examination, please visit:
http://jeemain.nic.in/jeemainapp/pdf/JEE_Main_bulletin_2015_19_12_13.pdf.

3. Ph.D. Programme: Written test will be held in the respective departments on **June 16and 19, 2015** followed by personal interview.

Note: Group Discussion/Personal Interview will be held for short listed candidates for the programmes of M.A. in Mass Communication and Journalism, M.A. in English, M. Tech in Food Engineering and Technology (for selection based on GATE), M.A. in Social Work and P.G. Diploma in Tourism Management. Group discussion and/or Personal interviews (wherever applicable) will be held on **June 17 and 18, 2015**.

Declaration of TUEE Results*: Fourth Week of June, 2015 in Tezpur University website: www.tezu.ernet.in.*
No separate call letter will be sent to the selected/waitlisted candidates for admission.

ANNEXURE III

Admission Schedule – 2015

<table>
<tr><th>Programmes</th><th colspan="2">Admission and counselling</th></tr>
<tr><td>All B. Tech. Programmes</td><td colspan="2">21 and 22 July, 2015
(09:30 AM to 05:00 PM)</td></tr>
<tr><td rowspan="2">All programmes other than B. Tech
(Admission will be held in respective Department)</td><td>Main List</td><td>Waiting list</td></tr>
<tr><td>23 and 24 July, 2015
(09:30 AM to 3:30 PM)</td><td>28 July 2015
(Reporting at the designated venue sharp at 9:30 AM)</td></tr>
<tr><td>Ph.D.
(Admission will be held in respective Department)</td><td colspan="2">23 and 24 July 2015
(9:30 AM to 3:30 PM)</td></tr>
</table>

Note: The notification indicating the vacant seats in different programmes will be uploaded by July 26, 2015. The wait listed candidates may avail chance admissions on the stipulated date and time in the Specified common admission venue. **Waitlisted candidates fail to report at 9.30 am may not be considered for admission irrespective of their position in the waiting list.**

ANNEXURE IV

STATEMENT OF SEMESTER-WISE FEE (NORMAL)

Programmes	1st Sem.	2nd Sem.	3rd Sem.	4th Sem.	5th Sem	6th Sem.	7th Sem.	8th Sem.	9th Sem.	10th Sem.	Refund-able
B. Tech.	32406.00	23700.00	24106.00	23700.00	24106.00	23700.00	24106.00	23700.00	-	-	6500.00
Certificate in Chinese	16806.00	8600.00	-	-	-	-	-	-	-	-	6500.00
Integrated M.A. Intgd. M.Com. / Intgd. B.A.B.Ed	18506.00	9800.00	10206.00	9800.00	10206.00	9800.00	10206.00	9800.00	10206.00	9800.00	6500.00
Integrated M.Sc./ B.Sc.B.Ed	21406.00	12200.00	12606.00	12200.00	12606.00	12200.00	12606.00	12200.00	12606.00	12200.00	7000.00
M.A	18506.00	9800.00	10206.00	9800.00	-	-	-	-	-	-	6500.00
M. Tech.	28006.00	19300.00	19706.00	19300.00	19706.00	19300.00	19706.00	19300.00	-	-	6500.00
MCA	24006.00	15300.00	15706.00	15300.00	15706.00	15300.00	-	-	-	-	6500.00
M. A. in MCJ	29006.00	19300.00	19706.00	19300.00	-	-	-	-	-	-	6500.00
M. Sc.	19206.00	10500.00	10906.00	10500.00	-	-	-	-	-	-	6500.00
PGD in Mobile & Multimedia Communication	23006.00	13800.00	-	-	-	-	-	-	-	-	6500.00
PGD in Translation (Hindi)	17006.00	8800.00	-	-	-	-	-	-	-	-	6500.00
PGD in Tourism Management	23006.00	14300.00	-	-	-	-	-	-	-	-	6500.00

This is inclusive of Hostel Admission/Re-admission fee of ***Rs. 2000/- (payable per Semester),*** *and* ***Refundable Fees of Rs. 4500/- (payable only in the First Semester)***

NOTE: Candidates of the following programmes will be required to pay an **additional fee of Rs.1200/- per semester** on account of consumables:

B. Tech. in Food Engineering and Technology
Integrated M. Sc. / Integrated B.Sc. B.Ed. in Chemistry and Bioscience and Bioinformatics programmes.
M. Tech. in Food Engineering and Technology
M. Tech. in Energy Technology
M. Tech. in Polymer Science and Technology
M. Sc. in Chemistry
M. Sc. in Molecular Biology and Biotechnology
M. Sc. in Nanoscience and Technology
M. Sc. in Environmental Science

ANNEXURE V

STATEMENT OF SEMESTER-WISE FEE UNDER SSS

Programmes	1st Sem.	2nd Sem.	3rd Sem.	4th Sem.	5th Sem	6th Sem.	7th Sem.	8th Sem.	9th Sem.	10th Sem.	Refund-able
B. Tech.	82706.00	73400.00	73806.00	73400.00	73806.00	73400.00	73806.00	73400.00	-	-	6500.00
Certificate in Chinese	26956.00	18150.00	-	-	-	-	-	-	-	-	6500.00
Integrated M.A. Intgd. M.Com./ Intgd. B.A.B.Ed	32956.00	23650.00	24056.00	23650.00	24056.00	23650.00	24056.00	23650.00	24056.00	23650.00	6500.00
Integrated M.Sc./ B.Sc.B.Ed	46956.00	37150.00	37556.00	37150.00	37556.00	37150.00	37556.00	37150.00	37556.00	37150.00	7000.00
M. Tech.	39456.00	30150.00	30556.00	30150.00	30556.00	30150.00	30556.00	30150.00	-	-	6500.00
M.A	32956.00	23650.00	24056.00	23650.00	-	-	-	-	-	-	6500.00
MCA	39456.00	30150.00	30556.00	30150.00	30556.00	30150.00	-	-	-	-	6500.00
M. A. in MCJ	59206.00	48900.00	49306.00	48900.00	-	-	-	-	-	-	6500.00
M. Sc.	35456.00	26150.00	26556.00	26150.00	-	-	-	-	-	-	6500.00
PGD in Mobile and Multimedia Communication	50456.00	40650.00	-	-	-	-	-	-	-	-	6500.00
PGD in Tourism Management	37956.00	28650.00	-	-	-	-	-	-	-	-	6500.00

This is inclusive of Hostel Admission/Re-admission fee of ***Rs. 2000/- (payable per Semester),*** *and* ***Refundable Fees of Rs. 4500/- (payable only in the First Semester)***

NOTE: Candidates of the following programmes will be required to pay an additional fee of **Rs. 6000/-** per semester on account of consumables:

B. Tech. in Food Engineering and Technology
Integrated M. Sc. / Integrated B.Sc. B.Ed. in Chemistry and Bioscience and Bioinformatics programmes.
M. Tech. in Food Engineering and Technology
M. Tech. in Energy Technology
M. Tech. in Polymer Science and Technology
M. Sc. in Chemistry
M. Sc. in Molecular Biology and Biotechnology
M. Sc. in Nanoscience and Technology
M. Sc. in Environmental Science

ANNEXURE VI

Fees Structure for the Ph.D. Programme w.e.f. AUTUMN SEMESTER, 2015

Particular Fee	Mode	Ph.D. Full time	Ph.D. (Part Time/ Spon.)
Admission	Once on admission	500	500
Registration	Once on admission	150	150
Identity card	Once on admission	50	50
Convocation	Once on admission	500	500
Provisional certificate	Once on admission	100	100
Alumni Association	Once on admission	500	500
Caution deposit (Library and Laboratory)	Once on admission	2000	2000
Hostel Caution deposit	Once on admission	3000	3000
Hostel Mess Advance	Once on admission in case of Hostel boarder	1500	1500
Hostel admission/re-admission (Single seater for Ph.D. students)	Per semester in case of Hostel boarder	3000	3000
Enrollment	Per semester *(w.e.f. 8nd sem. Onward)*	500	500
Tuition	Per semester	1500	2000
Library	Per semester	350	350
Students' activity	Per semester	500	500
Medical	Per Semester	250	250
Transport	Per semester	1000	1000
Laboratory (including computer usage)	Per semester	1000	1000
Research Fee	Per semester	3000	4000
Infrastructure and amenity	Per semester	1000	1000
Fan, Electricity and Water charge	Per semester	300	300
Students' Welfare Fund	Per semester	150	150
Development Fund	Per semester	1500	1500
Thesis Examination Fee	At the time of submission of thesis	5000	5000
Consumable Charge *(Additional fee for the students of the Depts. of Chem. Scs., MBBT, Physics, Env. Sc. and FET)*	Per semester	2000	2000
** Health Insurance	Per annum *(Students above 35 yrs. of age are not covered in this scheme)*	406	406

* Candidates admitted to the Ph.D. programme in the Departments of Chemical Sciences, Molecular Biology and Biotechnology, Physics, Environmental Science and Food Engineering and Technology will be required to pay an additional fee of **Rs. 2,000/- (Rupees Two thousands)** per semester on account of consumables .

N.B: SC/ST students are exempted from paying hostel seat rent.

ANNEXURE VII

Prescribed Format of OBCNCL Certificate

FORM OF CERTIFICATE TO BE PRODUCED BY OTHER BACKWARD CLASSES APPLYING FOR APPOINTMENT TO POSTS/ ADMISSION TO CENTRAL EDUCATIONAL INSTITUTIONS (CEIs), UNDER THE GOVERNMENT OF INDIA

This is to certify that Shri/Smt./Kum.……..
Son/Daughter of Shri/Smt.……
of Village/ Town ……..……District/Division……..……
.inthe……Community which is recognized as a backward class under:

(i) Resolution No. 12012 / 68 / 93-BCC(C) dated 10 / 09 / 93 published in the Gazette of India Extra ordinary Part I Section I No. 186 dated 13 / 09 / 93.
(ii) Resolution No. 12012 /9 / 94-BCC dated 19 / 10 / 94 published in the Gazette of India Extra ordinary Part I Section I No. 163 dated 20 / 10 / 94.
(iii) Rsoltion No. 12012 / 7 / 95 BCC dated 24 / 05 / 95 published in the Gazette of India Extra ordinary Part I Section-INo.88dated25/05/95.
(iv) Resolution No. 12012 / 96 / 94-BCC dated 9 / 03 / 96.
(v) Resolution No. 12012 / 44 / 96 -BCC dated 6 / 12 / 96 published in the Gazette of India Extra ordinary Part I Section I No. 210 dated 11 / 12 / 96.
(vi) Resolution No. 12012 / 13 / 97-BCC dated 03 / 12 / 97.
(vii) Resolution No. 12012 / 99 / 94-BCC dated 11 / 12 / 97.
(viii) Resolution No. 12012 / 68 / 98-BCC dated 27 / 10 / 99.
(ix) Resolution No. 12012 / 88 / 98-BCC dated 06 / 12 / 99 published in the Gazette of India Extraordinary Part-I Section-I No. 270 dated 06 / 12 / 99.
(x) Resolution No. 12012 / 36 / 99-BCC dated 04 / 04 / 2000 published in the Gazette of India Extraordinary Part-I Section-I No. 71 dated 04 / 04 / 2000.
(xi) Resolution No. 12012 / 44 / 99-BCC dated 21 / 09 / 2000 published in the Gazette of India Extraordinary Par-I Section-I No. 210 dated 21 / 09 / 2000.
(xii) Resolution No. 1201 5 / 9 / 2000-BCC dated 06 / 09 / 2001.
(xiii) Resolution No. 12012 / 1 / 2001-BCC dated 19 / 06 / 2003.
(xiv) Resolution No. 12012 / 4 / 2002-BCC dated 13 / 01 / 2004.
(xv) Resolution No. 12012 / 9 / 2004-BCC dated 16 / 01 / 2006 published in the Gazette of India Extra ordinary Part I Section I No. 210 dated 16 / 01 / 2006.

Shri/Smt./Kum. ..... and/or his family ordinarily reside(s) in the. .....District/Division of ..... state. This is also to certify that he/she does not belong to the persons/section (Creamy Layer) mentioned inColumn3oftheSchedules of the Government of India. Department of Personnel & Training O.M.No.36012/22/93-Estt.(SCT) dated 08/09/93 which is modified vide OMNo.36033/3/2004Estt.(Res.) dated09/03/2004.

Dated:……District Magistrate/Deputy Commissioner/
Competent Authority

Seal

NOTE :

(a Thetermordinarilyusedherewillhavethesamemeaningasin Section20oheRepresentationofthePeopleAct.1950.
(b) The authorities compete to issue Caste Certificate sare indicated below:
(i) District Magistrate/Additional Magistrate/Collector/Deputy Commissioner/Additional Deputy Commissioner/ Deputy Collector/1stClassStipendiaryMagistrate/Sub Divisional Magistrate/Taluka Magistrate/Executive Magistrate/ExtraAssistantCommissioner(notbelowtherankof1stClass Stipendiary Magistrate)
(ii) Chief Presidency Magistrate/Additional Chief Presidency Magistrate/Presidency Magistrate.
(iii) Revenue Officer not be low the rank of Tehsil darand.
(iv) Sub- Divisional Officer of the area where the candidate and/or his family resides.

ANNEXURE VIII

Photo

Seal of the issuing office

GOVT. OF ASSAM
OFFICE OF THE DEPUTY COMMISSIONER

Ref Petition No. ……………..   Date:……………

PERMANENT RESIDENCE CERTIFICATE

Certified ………..

son/daughter of ………………………………………………………………………………………………………....……..and

……………………..……………………………………………....…of Village/Path/Street…….…………………….....……….……………….

under Mauza/Circle……………………………., under……………………………………………………………..……………Police station

is the permanent resident of ………………………...……………..……………...district in the state of Assam (India).

Seal   **Deputy Commissioner**

ANNEXURE –IX

AFFIDAVIT BY PARENT/GUARDIAN

I, Mr./Mrs./Ms. …… (*full name of parent/guardian*) father/mother/guardian of…….. (*full name of student withadmission/registration/ enrolment number*), having been admitted to ……..……(*nameof the institution*), have received a copy of the UGC Regulations on Curbing the Menace of Ragging in Higher Educational Institutions, 2009, (*hereinafter called the "Regulations"*), carefully read and fully understood the provisions contained in the said Regulations.

2. I have, in particular, perused clause 3 of the Regulations and am aware as to what constitutes ragging.
3. I have also, in particular, perused clause 7 and clause 9.1 of the Regulations and am fully aware of the penal and administrative action that is liable to be taken against my ward in case he/she is found guilty of or abetting ragging, actively or passively, or being part of a conspiracy to promote ragging.
4. I hereby solemnly aver and undertake that
   a) My ward will not indulge in any behaviour or act that may be constituted as ragging under clause 3 of the Regulations.
   b) My ward will not participate in or abet or propagate through any act of commission or omission that may be constituted as ragging under clause 3 of the Regulations.
5. I hereby affirm that, if found guilty of ragging, my ward is liable for punishment according to clause 9.1 of the Regulations, without prejudice to any other criminal action that may be taken against my ward under any penal law or any law for the time being in force.
6. I hereby declare that my ward has not been expelled or debarred from admission in any institution in the country on account of being found guilty of, abetting or being part of a conspiracy to promote, ragging; and further affirm that, in case the declaration is found to be untrue, the admission of my ward is liable to be cancelled.

Declared this ___day of _____ month of _____year.

_____
Signature of deponent

Name:
Address:
Telephone/Mobile No.:

VERIFICATION

Verified that the contents of this affidavit are true to the best of my knowledge and no part of the affidavit is false and nothing has been concealed or misstated therein.

Verified at ……..(place) on this the …..(day) of ….(month) , ……. (year) .

_____
Signature of deponent

Solemnly affirmed and signed in my presence on this the (day) of (month), (year) after reading the contents of this affidavit.

OATH COMMISSIONER

ANNEXURE –X

AFFIDAVIT BY THE STUDENT

1. I, …… (*full name of student with admission/registration/enrolment number*) s/o d/o Mr./Mrs./Ms. ……, havingbeen admitted to …….. (*name of the institution)*, have received a copy ofthe UGC Regulations on Curbing the Menace of Ragging in Higher Educational Institutions, 2009, (*hereinafter called the "Regulations"*) carefully read and fully understood the provisions contained in the said Regulations.
2. I have, in particular, perused clause 3 of the Regulations and am aware as to what constitutes ragging.
3. I have also, in particular, perused clause 7 and clause 9.1 of the Regulations and am fully aware of the penal and administrative action that is liable to be taken against me in case I am found guilty of or abetting ragging, actively or passively, or being part of a conspiracy to promote ragging.
4. I hereby solemnly aver and undertake that
   a) I will not indulge in any behaviour or act that may be constituted as ragging under clause 3 of the Regulations.
   b) I will not participate in or abet or propagate through any act of commission or omission that may be constituted as ragging under clause 3 of the Regulations.
5. I hereby affirm that, if found guilty of ragging, I am liable for punishment according to clause 9.1 of the Regulations, without prejudice to any other criminal action that may be taken against me under any penal law or any law for the time being in force.
6. I hereby declare that I have not been expelled or debarred from admission in any institution in the country on account of being found guilty of, abetting or being part of a conspiracy to promote, ragging; and further affirm that, in case the declaration is found to be untrue, I am aware that my admission is liable to be cancelled.

Declared this ___day of _____ month of _____year.

_____
Signature of deponent

Name:

VERIFICATION

Verified that the contents of this affidavit are true to the best of my knowledge and no part of the affidavit is false and nothing has been concealed or misstated therein.
Verified at ……..(place) on this the …….(day) of ……..(month),…….. (year) .

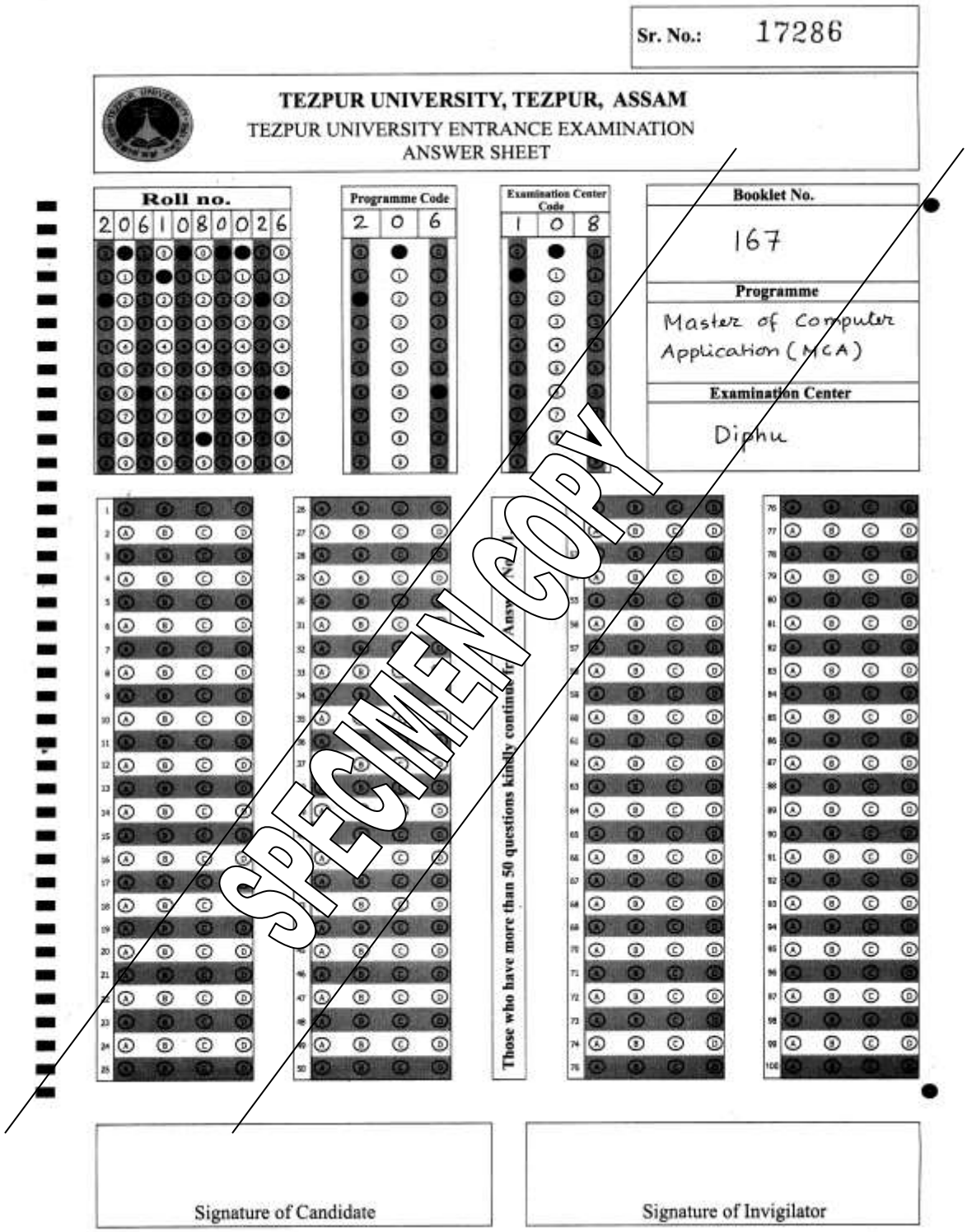
_____
Signature of deponent

Solemnly affirmed and signed in my presence on this the (day) of (month), (year) after reading the contents of this affidavit.

OATH COMMISIONER

ANNEXURE –XI

O.M.R. ANSWER SHEET & INSTRUCTIONS



Sr. No.: 17286

TEZPUR UNIVERSITY, TEZPUR, ASSAM
TEZPUR UNIVERSITY ENTRANCE EXAMINATION
ANSWER SHEET

Roll no. 2 0 6 1 0 8 0 0 2 6

Programme Code 2 0 6

Examination Center Code 1 0 8

Booklet No. 167

Programme: Master of Computer Application (MCA)

Examination Center: Diphu

Those who have more than 50 questions kindly continue in Answer

SPECIMEN COPY

Signature of Candidate

Signature of Invigilator

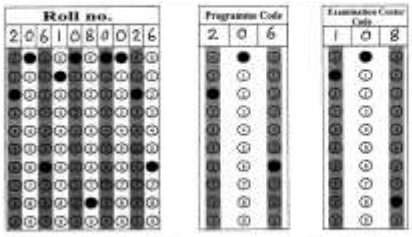
INSTRUCTION FOR USING THE O.M.R. ANSWER SHEET

1. This answer sheet shall be processed using electronic means. Invalidation of Answer Sheet due to incomplete or incorrect filing of the OMR is the sole responsibility of the candidate.
2. Use a **black** or **blue ball point pen** for darkening the ovals. No other colour shall be allowed.
3. Write your roll number, programme code and examination centre code in boxes provided for these. Then **darken the appropriate oval** below each digit**. This is mandatory.** *If you fail to mark these three important components correctly, your OMR sheet will be summarily rejected (see the example given below).*
4. Examination Centre codes and programme codes are given in the OMR sheet.
5. Also write the Question Booklet number, Programme applied for, and Examination Centre in **words** in the blank boxes provided**.** There is no provision for darkening of digit/alphabet for these.
6. Darken the correct answer against the respective question. There are only four probable answers for a question in the form of A, B, C & D. Chose the correct answer carefully and darken the same.
7. Chose ONLY ONE answer. If you chose more than one answer for a particular question, your answer shall be treated as WRONG.
8. DO NOT OVER-WRITE. Over-written answers will also be marked as wrong.
9. Sign at the end of the OMR sheet in the box provided.
10. Make sure that the invigilator also signs the OMR sheet.
11. While marking your answers, darken the appropriate oval as shown below.

CORRECT A B C D

WRONG A B C D

12. Example of correct way of marking roll number, programme code and Examination centre code.



Centre	Code	Centre	Code	Centre	Code
Agartala	101	Guwahati	109	Mumbai	117
Bangalore	102	Hyderabad	110	North Lakhimpur	118
Barpeta Road	103	Imphal	111	Patna	119
Bhubaneswar	104	Itanagar	112	Shillong	120
Chennai	105	Jorhat	113	Silchar	121
Delhi	106	Kokrajhar	114	Siliguri	122
Dibrugarh	107	Kolkata	115	Tezpur	123
Diphu	108	Lucknow	116		

PROGRAMME CODES

P.G. Diploma in Tourism Management (PGDTM)	201	M.Tech. in Food Engineering and Technology	218
Integrated M.Com.	202	MA in Hindi	219
M.Sc. in Chemistry	203	P.G. Diploma in Translation (Hindi)	220
Integrated M.Sc. in Chemistry/ Integrated B.Sc.B.Ed. (Major-Chemistry)	204	M.A. in Mass Communication and Journalism	221
M. Tech. in Polymer Science and Technology	205	P.G. Diploma in Mobile and Multimedia Communication	222
Master of Computer Application (MCA)	206	M.A./M.Sc. in Mathematics	223
M.Tech. in Information Technology	207	Integrated M.Sc. in Mathematics/ Integrated B.Sc.B.Ed. (Major-Maths.)	224
M.A. in Cultural Studies	208	M. Tech. in Mechanical Engineering	225
M.Tech. in Electronics Design and Technology	209	M.Sc. in Molecular Biology and Biotechnology	226
M.Tech. in Bioelectronics	210	Integrated M.Sc. in Bioscience and Bioinformatics	227
M.Tech. in Energy Technology	211	M.Sc. in Physics	228
M.A. in English	212	M.Sc. in Nanoscience and Technology	229
M. A. in Linguistics and Language Technology	213	Integrated M.Sc. in Physics/ Integrated B.Sc.B.Ed. (Major-Physics)	230
Integrated M.A. in English / Integrated B.A.B.Ed. (Major- English)	214	M.A. in Social Work	231
One year Certificate in Chinese	215	M.A. in Sociology	232
M.Sc. in Environmental Science	216		
Post B. Sc. Integrated M. Tech. in FET	217		

CONTACT ADDRESSES

All enquiries about academic programmes and requisite qualification should be directed to the office of the Department concerned. Enquiries relating to receipt of applications, entrance examination centre and other matters relating to the entrance examinations should be directed to the Controller of Examinations at 03712-267114.

The EPABX extension numbers of all the Departments and of the Controller of Examinations are given below. Please dial (03712) 27xxxx, where xxxx is the extension number.

Controller of Examinations,
Tezpur University, Napaam,
Tezpur-784028
Telephone: +91 3712-267114
03712273332
E-mail : boral@tezu.ernet.in
Extension No. : 3141

Department/Office	Extension number	Mobile number * (HoDs)	e-mail
Business Administration	5000	9435015074	hod_ba@tezu.ernet
Chemical Sciences	5050	9957184354	hod_chem@tezu.ernet.in
Civil Engineering	5950	9435085338	hod_civil@tezu.ernet.in
Commerce	3290		
Computer Science and Engineering	5100	9435084468	hod_cse@tezu.ernet.in
Cultural Studies	5150	9954449460	hod_cul@tezu.ernet.in
Education	5651		
Electronics and Communication Engineering	5250	9954449462	hod_ece@tezu.ernet.in
Energy	5300	9957184356	hod_ene@tezu.ernet.in
English and Foreign Languages	5200	9954449464	hod_efl@tezu.ernet.in
Environmental Science	5600	9954449464	hod_env@tezu.ernet.in
Food Engineering and Technology	5700	9435408396	hod_fet@tezu.ernet.in
Hindi	5750	9435384799	hod_hin@tezu.ernet.in
Mass communication and Journalism	5450	9435185424	hod_mcj@tezu.ernet.in
Mathematical Sciences	5500	9957191528	hod_ms@tezu.ernet.in
Mechanical Engineering	5850	9435170182	hod_mech@tezu.ernet.in
Molecular Biology and Biotechnology	5400	9954471151	hod_mbbt@tezu.ernet.in
Physics	5550	9435084076	hod_phy@tezu.ernet.in
Social Work	5830		
Sociology	5800	9954449471	hod_soc@tezu.ernet.in

**Mobile Number should be used during office hours only in case of emergency.*

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Course Code	Course Title	Cr.
CO 421	Graph Theory	3
CO 422	Theory of Computation	3
CO 423	Web Technology	5
CO 424	E-Commerce	5
CO 425	VLSI Design	5
CO 426	Advanced Computer Architecture	3
CO 427	Modeling and Simulation	5
CO 428	Computer Peripherals and Interfacing	5
CO 429	Computer Systems Performance Evaluation	3
CO 430	Management Information System	3
CO 431	System Analysis and Design	3
CO 432	Information Theory and Coding	3
CO 433	Digital Signal Processing	3
CO 434	Image Processing	3

Course Code	Course Title	Cr.
CO 435	Mobile Computing	3
CO 436	Wireless Communication	3
CO 501	Network Management and Security	3
CO 502	Data Compression	3
CO 503	Fuzzy Logic and Neural Networks	3
CO 504	Natural Language Processing	3
CO 505	Advanced Database Management System	3
CO 506	Advanced Software Engineering	3
CO 507	Advanced Embedded Systems	3
CO 508	Grid Computing	3
CO 509	Computer Vision	3
CO 510	Robotics	3
CO 511	Ubiquitous and Pervasive Computing	3