PROSPECTUS, AUTUMN 2016

TEZPUR UNIVERSITY

(A Central University)

www.tezu.ernet.in

Napaam, Tezpur, Assam 784028

CONTENTS

NOTE : *This Brochure does not create a binding contract between the University and the students. Various provisions mentioned in the Brochure are subject to change. University regulation, circular and/or notification issued at a later date are liable to supersede the provisions mentioned in this Brochure.*

SECTION ONE

TEZPUR UNIVERSITY

ABOUT THE UNIVERSITY

Tezpur University was established on January 21, 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 19 disciplines, Masters programme in 26 disciplines, Post-Graduate Diploma in 3 disciplines, B.Tech. in 6 disciplines, Certificate programme in 3 disciplines, Integrated M.Sc. in 4 disciplines, Integrated M.Com., Integrated B.Sc.B.Ed. in 3 disciplines, Integrated M.A. in one discipline, Integrated B.A.B.Ed. in one discipline, two-year B.Ed. Programme, B.Voc. Programme in 2 disciplines and one diploma programme under Community College. The University offers Add-on courses on Yoga and Violin too.

During the last twenty two 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 13 well-designed hostels, several residential quarters have been built for accommodating teachers and non-teaching staff. Other basic amenities like dedicated power supply with DG backup, central water supply, campus security, guest house, canteen, gymnasium, outdoor and indoor sports facilities, 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 has a Central Library with a rapidly increasing collection of books, periodicals, journals and e-resources. It holds 67891 books, 7884 back volumes, active subscription to 650 print and electronic journals and 3 online Databases. The UGC-Infonet Consortia of INFLIBNET Centre is providing access to about 9081 (including 525 on perpetual basis) e-journals and 11 online Databases. The DelCon DBT e-library Consortium has also provided access to 926 e-journals. The library holds 1981 CD/VCDs. The Library subscribes an institutional membership of Developing Library Network (DELNET) and American Library. Library users can access book, theses, journal database, e-journals database and other e-resources from any terminal within the University campus. The Library is fully computerized with the Libsys software, which is an integrated multi-user library management system.

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.

Sophisticated Analytical Instrumentation Centre (SAIC)

The University established the Sophisticated Analytical Instrumentation Centre (SAIC) to cater the need of various sophisticated equipment for advanced research. A number of sophisticated equipment, like, TEM, SEM, Single Crystal XRD, NMR, etc. are installed in SAIC. The centre also extends these facilities to other educational institutions and industries within the North East Region of India and beyond to improve and promote research of different disciplines.

Hostel Accommodation

The University has separate hostels for boys and girls adequate to accommodate all students and research scholars. In total there are 8 women's and 5 men's hostels comprising of more than 3300 capacity. The University also has a married research scholar hostel capable of accommodating more than 30 research scholars.

Scholarships

Tezpur University also offers Institutional fellowships to some selected Ph.D. students having consistently good academic career.

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. Further, 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. The newly admitted students below the age of 35 years will be covered under the health insurance scheme.

Games and Sports

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

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 2016 is available in the URL- http://www.tezu.ernet.in/academic/calendar_2016.pdf

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 a *Ragging Free University.* Ragging in any form is strictly prohibited inside or outside the University. Students found indulging in ragging shall be rusticated from the hostel/university (as per UGC rule). Candidates are advised to visit the website http://www.ugc.ac.in/oldpdf/ragging/gazzetaug2010.pdf for UGC Regulations on curbing the menace of ragging in Higher Educational Institutions, 2009 and the website http://www.tezu.ernet.in/notices/ntc_antiragging.htm for information regarding the measures taken by Tezpur University against ragging. At the time of admission, candidates are required to submit affidavits through online portal (https://antiragging.in/Site/Affidavits_registration_form.aspx).

Grievance Redressal System

The University provides an active grievance redressal mechanism to promote and maintain a healthy and unprejudiced educational environment. The system operates through many components to redress the grievances of it's stakeholders. Head of the Department receives grievances from the students of the department either directly or through the departmental mentoring system. Warden receives and redresses complaints from the boarders with the help of the prefects or if necessary through the Hostel disciplinary committee. Dean, Students' welfare also receives and redresses any grievances of the students. The University has a online grievance registration system (website: http://www.tezu.ernet.in/GrievanceSystem).

Anti Sexual harassment Cell

The anti sexual harassment cell (website: http://luit.tezu.ernet.in/grievance/index.php) in Tezpur University examines complaints of sexual harassment at workplace within the framework of the Sexual Harassment of Women at Workplace (Prevention, Prohibition and Redressal) Act, 2013 to provide protection against sexual harassment of women at work-place and for prevention and redressal of complaints of sexual harassment to protect the right of women to work with dig-nity.

CURRICULUM

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 guid-ed 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 O to P are considered as *Pass grades* and *F* is considered as *Fail* grade. The grading systems likely to be adopted by the university is given below:

Letter Grade	Grade Point	Description
O	10	Outstanding
A+	9	Excellent
A	8	Very Good
B+	7	Good
B	6	Above average
C	5	Average
P	4	Pass
F	0	Fail
Ab	0	Absent

In addition there are other grades followed by the University as stated in the next page:

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 components.
W	Course withdrawn / Shortage of attendance	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 of the form shall be made available to the Dean of Students' Welfare, Head of the Department and the student concerned.

Abridged Academic Calendar for Autumn 2016

JULY 25	Counselling and course registration for new entrants
JULY 26	Autumn Semester classes start
OCTOBER 3 to OCTOBER 7	Major I
DECEMBER 5 to DECEMBER 9	Autumn Semester End Examinations
DECEMBER 30	Declaration of Results of Autumn Semester

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.

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	Indian Express
Accenture	Infosys
AGC Networks	Intel
Airtel (Bharti Telecom)	ITC Ltd.
American Embassy, New Delhi	Jindal Steel & Power Ltd.
Aricent	Jungle Travels India
Asia Carbon Limited	Jenson & Nicholson
Asian Paints	Kotak Life
Axis Bank	Mahindra Finance
Azim Premji Foundation	LG Soft
Berger Paints	L&T Infotech
Broadcom Corporation	Look East Channel
Café Coffee Day	Nagaland Fruit and Veg. Prod. Unit
Calcom Cement	NDTV
Catalyst Management Services	Nestle India Ltd.
Channelply	NE Chronicle
Channel Look-East	NE TV
Chembioteek Life Science	Newslive
CG foods	Nokia
Cipla Ltd.	OCWEN
CNN-IBN	Oracle
Colgate-Palmolive	Pantaloons, Division of Aditya Birla Group
Dabur India	Perkin Elmer (India) Pvt Ltd.
Delphi	Philips
Diamond Fabcare, New Delhi	PRADAN
Disha, New Delhi	Press Trust of India,
DSCL	Q-Tech Nano Systems
Dyna Roof	Reliance
ETV-Ramoji Film City, Hyderabad	Reverie Language Technologies
Genpact	RIMS

List of Past Recruiters

Private Sector Organizations	
GE Health Care	Samsung
GLAXO-Smithline	SBI Life
GE Health Care	SeSTA
GLAXO-Smithkline	Shalimar Paints
Godrej and Boyce Manuf. Co. Ltd.	Shriram Transport Finance Company Ltd.
Hindustan Coca-cola Ltd	Siemens Technology,
Hindustan Lever Ltd.	Software AG
Housing Dev. Finance Co. (HDFC)	Sony India
Huawei Technologies	SRD Nutrients, Mangaldoi,
IBM	Star Cement
ICI Paints	Sunrise Biscuits (Britannia)
ICICI Bank	Symphony
Syntel	Unisys Global Services
Tata Consultancy Service	Wipro
TATA-ELEXI	WSP
TCI	XL Dynamics
Tech Mahindra	Yes Bank
The Shillong Times	Zaloni Technologies
Vodafone	
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

List of Past Recruiters

Institutions of Higher Learning	
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

IMPORTANT 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 25, 2016 in the respective departments.

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. It is the responsibility of the students to submit the documents through the head of the concerned departments to the office of the controller of the examination within the specified date.

APPLICATION PROCEDURE

Interested eligible candidates may APPLY ONLINE through the University Website by paying a fee of Rs. 250/- for SC, ST and 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 on 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, a candidate needs to apply in a single application form. Even though there shall be one combined entrance examination for those Integrated M.Sc. and Integrated B.Sc.B.Ed. for a Department, there shall be two separate merit lists. The same is applicable for Integrated M.A. in English and Integrated B.A.B.Ed. in English. Candidates of such integrated courses must mention their choices clearly in 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 on Page 13.*

4. Last date for submission of online application form

(i) <u>For B.Tech. Programmes</u>: May 6, 2016.
(ii) <u>For all other programmes</u>: April 25, 2016.
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 and Engineering
EE	Electrical Engineering
ECE	Electronics and Communication Engineering
FET	Food Engineering and 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.): Shortlisted candidate will be intimated to download the admit card through an SMS in their registered mobile.

7. Entrance Examination Centres (other than B. Tech.): Candidate has to choose the Examination Centre in the application form. It is to be noted that change of centre at a later date is not allowed.

8. Personal interview: Shortlisted Ph.D. candidates shall be invited for a personal interview in the respective Department.

9. 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 self attested copies of all mark sheets and certificates at <u>the time of admission</u>.

The following documents are mandatory for the mentioned programmes

A. For B. Tech. programme
i) A copy of **JEE(Main)-2016** admit card
ii) Permanent Residence Certificate (PRC) in case applying for Northeast Quota.

B. For other programmes
i) Self attested copies of certificates (*and other documents, if relevant*) if applying under reserved category *(SC/ ST/OBC(NCL)/Person With Disability/Kashmiri Migrant categories/Wards of Ex-servicemen)*
ii) Self 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 scanned copy of the Permanent Residence Certificate of any NE states.**
- **All candidates applying for B.Tech. programme must upload the admit card of JEE.**
- **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.**

Name of the Tezpur University Entrance Examination Centre and their address

Centre	Code	Address
Agartala	101	Tripura University, Suryamaninagar, Agartala-799 022 , Tripura
Barpeta Road	102	B. H. College, Howly, Barpeta-781316, Assam
Bengaluru	103	Indian Institute of Science, Bangalore – 560012
Bhubaneswar	104	B.J.B. College (Autonomous), BJB Nagar, Bhubaneswar -751014
Chennai	105	Presidency College, Kannagi Salai, Chepauk, Triplicane, Chennai-600005, Tamilnadu
Delhi	106	Gargi College, University of Delhi, Siri Fort Road, Delhi-110049
Dibrugarh	107	Dibrugarh University, Dibrugarh-786004, Assam
Diphu	108	Diphu Govt. College, Diphu, Karbialong-782 462, Assam
Goalpara	109	Goalpara College, Agia Road, Goalpara- 783101, Assam
Guwahati	110	North Eastern Regional Institute of Management (NERIM), Tripura Road, Joyanagar, Khanapara, Guwahati-781022
Hyderabad	111	Nizam College, Opposite L.B. Stadium, Basheer Bag, Hyderabad-500001, Telengana
Imphal	112	Manipur University, Indo Myanmar Road, Canchipur, Imphal-795003, Manipur
Itanagar	113	North Eastern Regional Institute of Science and Technology (NERIST), Nirjuli , Itanagar-791109, Arunachal Pradesh, India
Jorhat	114	The Assam Kaziranga University, Karaikhowa, NH-37, Jorhat-785006, Assam
Kokrajhar	115	Kokrajhar Govt. College, Kokrajhar-783370, BTAD, Assam
Kolkata	116	Giribala Sirkar Balika Vidyalay, 70B and C Shyampukur Street Kolkata-700004, West Bengal
Lucknow	117	University of Lucknow, Lucknow-226007, U.P
Mumbai	118	Specific Centre to be decided
North Lakhimpur	119	North Lakhimpur College, Khelmati, Lakhimpur-787031, Assam
Patna	120	Birla Institute of Technology, Near JPN International Airport,B V College, Patna 800 014
Shillong	121	Shillong College, Laitumkhrah, Shillong-793003, Meghalaya
Silchar	122	G.C. College, College Road, Silchar-788004, Assam
Siliguri	123	North Bengal University, Canal Street, Kolkata-700016, West Bengal
Tezpur	124	Tezpur University, Napaam, Tezpur-784028, 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)-2016** to be conducted by CBSE, New Delhi. All Admission shall be based on **JEE (Main)-2016** 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 may 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 (CSAB) based on **JEE (Main)-2016**

(b) All other Programmes

The applicants for all other programmes (except for MBA) shall have to take an Admission Test conducted by TUEE-2016. 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-2016. 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-2016, and may seek admission based on performance at TUEE.

(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-2016. 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-2016 as per the schedule given in **Annexure II**. Selection will be based on the performance in TUEE-2016.

(v) B. Voc. Programme : Candidates applying for B. Voc. programme will have to appear Tezpur University Entrance Examinations.

The results of entrance examinations for all the programs except Ph.D. are likely to be declared on June20, 2016. Ph.D programme result is likely to be declared on June 29, 2016.

Seats are reserved for SC/ST/OBC (NCL) and Persons with Disabilities (PWD) as per central government rules. **Please note that PWD candidates with at least 40% permanent disabilities will only be considered**. Furthermore as per directives of Central Govt., Supernumerary Seats are available in the following categories:

1. Jammu and Kashmir candidates
2. 5% seats for persons belonging to PWD in B. Voc. programmes.
3. 5% seats for the widows/wards/wives of Armed forces personnel and Ex-Servicemen as per the following priorities:
   (a) Widows/wards of defence personnel killed in action
   (b) Wards of serving personnel and Ex-servicemen disabled in action
   (c) Widows/wards of defence personnel who died in peace time with death attributable to military service
   (d) Wards of defence personnel disabled in peace time with disability attributable to military service
   (e) Wards of Ex-servicemen and serving personnel who are in receipt of Gallantry Awards.
   (f) Wards of Ex-servicemen
   (g) Wards of serving personnel

The candidate should enclose a copy of the certificate issued by a competent authority in support of their claim without which their claim will not be considered. The candidate under this category should appear in the entrance examination for admission and fulfilled all other requirements of admission.

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 will be uploaded in the University website. 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. The selected candidates will have to bring a print out of the online form, a set of photo copies of all documents, and the original documents for verification during the time of admission. Any mis-match of online data and original certificates will automatically forfeit the candidature of the candidate.

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, 2016 failing which they will be debarred from appearing the semester end examination. However, the provisionally admitted students are advised to submit the documents as early as possible.*
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 25 July, 2016 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

Candidates are to sit for Tezpur University Entrance Examinations (TUEE), 2016 to be held during June 3, 4 and 5, 2016. Entrance Examinations for all programmes will be of two hours duration and will carry 100 marks.

Ph. D. Programme: The written test shall comprise of questions based on P.G./U.G. courses in the respective subjects. For more information the candidates may contact the respective offering departments (Please see **Annexure XII**, Page 161.)

B.Ed. (2 years) : The written test shall comprise of only objective type questions on general awareness, teaching aptitude and knowledge on current issues and affairs related to education and teacher education.

B. Voc. in Food Processing : 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.

B. Voc. in Renewable Energy Management : 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.

Certificate in Chinese: The written test shall comprise of only objective type questions based on English grammar and usage, ability to write coherent paragraphs in English and general information about China.

Integrated M.A. in English and Integrated B.A. B.Ed. in English: The written test shall comprise of only objective type questions based on the candidate's general knowledge and the ability to write grammatically correct and acceptable English.

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.

Integrated M.Sc. in Bioscience and Bioinformatics: The written test shall comprise of 50 objective type questions. The first 35 questions will be from Biology and the remaining 15 questions from Chemistry, Mathematics, Physics and General knowledge. Each question carries 2 marks and 0.5 mark will be deducted for each wrong answer.

Integrated M.Sc. in Chemistry and Integrated B.Sc. B.Ed. in Chemistry: The written test shall comprise of 50 objective type questions. The first 35 questions will be from Chemistry and the remaining 15 questions from Biology, Mathematics, Physics and General knowledge. Each question carries 2 marks and 0.5 mark will be deducted for each wrong answer.

Integrated M.Sc. in Mathematics and Integrated B.Sc. B.Ed. in Mathematics: The written test shall comprise of 50 objective type questions. The first 35 questions will be from Mathematics and the remaining 15 questions from Chemistry, Biology, Physics and General knowledge. Each question carries 2 marks and 0.5 mark will be deducted for each wrong answer.

Integrated M.Sc. in Physics and Integrated B.Sc. B.Ed. in Physics: The written test shall comprise of 50 objective type questions. The first 35 questions will be from Physics and the remaining 15 questions from Chemistry, Mathematics, Biology and General knowledge. Each question carries 2 marks and 0.5 mark will be deducted for each wrong answer.

M.A. in Communication for Development: The written test shall comprise of only objective type questions based on current affairs, general knowledge, English language, general awareness on Northeast India and the basics of mass media.

M.A. in Cultural Studies: The written test shall comprise of only objective type questions covering (a) General English, (b) Current Affairs, (c) General Information on North East India, (d) General Awareness of History, Geography and Culture.

M.A. in Education: The written test shall comprise of only objective type questions based on knowledge expected from a student who has graduated / is going to graduate with major / honours in Education / Bachelor in Education (B.Ed.).

M.A. in English: The written test shall comprise of only objective type questions based on knowledge expected from a student who has graduated/is going to graduate with major/honours in English.

M.A. in Linguistics and Endangered Languages: The written test shall comprise of only objective type questions based on the basic information and ideas about language of the world and how language as a phenomenon works.

M.A. in Linguistics and Language Technology: The written test shall comprise of only objective type questions based on the basic information and ideas about languages of the world and how language as a phenomenon works.

M.A. in Hindi: The written test shall comprise of only objective type questions based on knowledge expected from a student who has graduated or is going to graduate with major/honours in Hindi.

M.A. in Mass Communication and Journalism: The written test shall comprise of only objective type questions based on current affairs, general knowledge, English language, general awareness on Northeast India and the basics of mass media.

M.A. in Social Work: The written test shall comprise of 75% objective type and 25% subjective type questions based on general awareness, current affairs, knowledge about civil society initiatives, social justice, various social issues and challenges.

M.A. in Sociology: The written test shall comprise of 75% objective type and 25% subjective type questions based on general awareness and understanding of various socio-economic and sociological issues.

MCA: The written test shall comprise of only objective type questions based on (i) Logical Reasoning and Basic Mathematical Ability, (ii) Mathematics (10+2 level) or fundamentals of Computer Science and (iii) English composition.

M.Sc. in Chemistry: The written test shall comprise of only objective type questions covering the basis of B.Sc. (Chemistry Major) syllabus along with 10+2 standard Mathematics, Physics, Biology and General Aptitude. 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 Environmental Science: The written test shall comprise of only objective type questions based on 10+2 and under graduate level science.

M.Sc. in Mathematics: The written test shall comprise of only objective type questions based on Graduate level Mathematics. Each question carries 2 marks and 0.5 mark will be deducted for each wrong answer.

M.Sc. in Molecular Biology and Biotechnology: The written test shall comprise of only objective type questions based on higher secondary level Chemistry, Physics and Mathematics and graduate level Life Science subjects. Each question carries 2 marks and 0.5 mark will be deducted for each wrong answer.

M.Sc. in Nano Science and Technology: The written test shall comprise of only objective type questions based on B.Sc. honours /major in Physics/Chemistry/Biology syllabus.

M.Sc. in Physics: The written test shall comprise of only objective type questions based on B.Sc. Physics (honours/major) syllabus.

M. Tech. in Bioelectronics: The written test shall comprise of only objective type questions based on 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 Electronics Design and Technology: The written test shall comprise of only objective type questions based on 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 Energy Technology: The written test shall comprise of only objective type questions based on (i) Energy sources and Energy conservation, (ii) Mathematics, (iii) Physics and (iv) Chemistry (Graduate level courses in Science and Engineering).

M. Tech. in Food Engineering and Technology: The written test shall comprise of only objective type questions based on 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, the following criteria will be used:

i)For GATE holder with food technology as one of the optional subjects: 100% weightage for GATE Score

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

M. Tech. in Information Technology: The written test shall comprise of only objective type questions based on Programming in C, Computer Organization, Data Structures, Operating Systems, System Software, Computer Network, DBMS and Theory of Computation.

M. Tech. in Mechanical Engineering : The written test shall comprise of only objective type questions based on under graduate Mechanical engineering courses.

M. Tech. in Polymer Science and Technology: The written test shall comprise of only objective type 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.

Master of Tourism and Travel Management (MTTM): The written test shall comprise of only objective type questions on General Knowledge , Test of Reasoning and Test of English.

P.G. Diploma in Child Rights and Governance : The written test shall comprise of only objective type questions based on areas relevant to human rights including child rights, various organizations working on child rights and protection including the United Nations/UNICEF, governance and legislations on issues related to children and their rights in India.

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

P.G. Diploma in Women's Studies: The written test shall comprise of only objective type questions based on areas/knowledge of women's movement, women's history, general aptitude and current affairs.

Model Questions for the Admission Test

Check the University website (https://www.tezuadmissions.in).

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 OMR 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 IX**. 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. PROGRAMMES

B.TECH. PROGRAMME

Admission to the following B. Tech. programmes shall be made through the All India JEE 2016.

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

CIVIL ENGINEERING

Courses offered in B.Tech. in Civil Engineering

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 101	Engineering Graphics	3
ME 103	Workshop Practice	2
Humanities Elective		
EG101/ SO101/ BM 101	Communicative English/Sociology/ Elementary Economics	3

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		
BT 101/ ES 101/ CH 102	Elements of Modern Biology/ Environmental Science/ Introducto-ry Material Science	3

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 Structure Laboratory	2
CE 214	Solid Mechanics	4

Fourth Semester

Course Code	Course Title	Cr.
MS 203	Numerical Analysis	3
CE 206	Civil Engineering Drawing	2
CE 207	Hydraulics and Hydraulic Structures	3
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

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
CE 311	Transportation Engineering Laboratory	1

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

Seventh Semester

Course Code	Course Title	Cr.
CE 401	Transportation Engineering-II	3
CE 402	Construction Management	3
CE 471	Industrial Summer Training#	2
CE 481	Project-I	6
-	Open Elective-II*	3
-	CE Elective-II	3
-	CE Elective-III	3

Eight Semester

Course Code	Course Title	Cr.
CE 482	Project-II	12
-	Open Elective-III*	3
-	CE Elective-IV	3

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
CE 430	Open Channel Flow	3
CE 431	Hydraulic Structures	3

Course Code	Course Title	Cr.
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
CE 439	Pavements Materials	3
CE 440	Geometric Design of Road Transportation System	3
CE 441	Design and Construction of Rural Roads	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 carried out during the summer break after the 6th semester. The report will be submitted in the 7th semester.

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

COMPUTER SCIENCE AND ENGINEERING

Courses offered in B.Tech. in Computer Science and Engineering

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 101	Engineering Graphics	3
ME 103	Workshop Practice	2
Humanities Elective		
EG101/ SO101/ BM 101	Communicative English/Sociology/ Elementary Economics	3

Second Semester

Course Code	Course Title	Cr.
MS 102	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		
BT 101/ ES 101/ CH 102	Elements of Modern Biology/ Environmental Science/ Introductory Material Science	3

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

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
CO 213	Data Communication	4
EL 221	Electronic Devices and Circuits	4

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

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

Seventh Semester $

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

Eighth Semester

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

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.

$ The 7th semester will start a month later than usual and therefore be shorter by a month. To compensate for it there shall be 4 class hours per week for a 3 credit course.

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.

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

ELECTRICAL ENGINEERING

Courses offered in B.Tech. in Electrical Engineering

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 101	Engineering Graphics	3
ME 103	Workshop Practice	2
Humanities Elective		
EG101/ SO101/ BM 101	Communicative English/Sociology/ Elementary Economics	3

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		
BT 101/ ES 101/ CH 102	Elements of Modern Biology/ Environmental Science/ Introducto-ry Material Science	3

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

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 Electromagnetic	3
CO 221	Data Structures and Object Oriented Programming	4

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	Fundamentals of Management	3

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

Seventh Semester $

Course Code	Course Title	Cr.
EE 401	Computer aided Power System analysis	5
EE 402	Industrial Summer Training #	2
EE 403	Project -I	6
-	EE Elective - II	3
-	EE Elective - III	3
-	Open Elective -II*	3

Eighth Semester

Course Code	Course Title	Cr.
EE 404	Project- II	12
-	EE Elective - IV	3
-	Open Elective -III*	3

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.

$ The 7th semester will start a month later than usual and therefore be shorter by a month. To compensate for it there shall be 4 class hours per week for a 3 credit course.

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.

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

ELECTRONICS AND COMMUNICATION ENGINEERING

Courses offered in B.Tech. in Electronics and Communication Engineering

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 101	Engineering Graphics	3
ME 103	Workshop Practice	2
Humanities Elective		
EG101/ SO101/ BM 101	Communicative English/Sociology/ Elementary Economics	3

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		
BT 101/ ES 101/ CH 102	Elements of Modern Biology/ Environmental Science/ Introductory Material Science	3

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 Electronics Device and Circuit	4
EL 204	Signals and Systems	3
CO 212	Computer Architecture and Organization	5

Fourth Semester

Course Code	Course Title	Cr.
EL 205	Integrated Circuit	4
EL 206	Principles of Communication	4
EL 207	Instrumentation	4
EL 208	Engineering Electromagnetic	3
CO 221	Data Structures and Object Oriented Programming	4
CO 222	System Software and Operating Systems	4

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

Sixth Semester

Course Code	Course Title	Cr.
EL 306	Communication Networks	4
EL 307	Device Modeling and 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

Seventh Semester $

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

Eighth Semester

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

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
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

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
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.

$ The 7th semester will start a month later than usual and therefore be shorted by a month. To compensate for it there shall be 4 class hours per week for a 3 credit course.

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

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

FOOD ENGINEERING AND TECHNOLOGY

Courses offered in B.Tech. in Food Engineering and Technology

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 101	Engineering Graphics	3
ME 103	Workshop Practice	2
Humanities Elective		
EG101/ SO101/ BM 101	Communicative English/Sociology/ Elementary Economics	3

Second Semester

Course Code	Course Title	Cr.
MS 102	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		
BT 101/ ES 101/ CH102	Elements of Modern Biology / Environmental Science / Introductory Material Science	3

Third Semester

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

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
FT208	Mechanical Operations in Food Processing	4
FT209	Fruits and Vegetables Process Technology	3
EL 321	Instrumentation and Process Control	4

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

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

Seventh Semester $

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

Eighth Semester

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

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.

$ The 7th semester will start a month later than usual and therefore be shorted by a month. To compensate for it there shall be 4 class hours per week for a 3 credit course.

\# 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.

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

MECHANICAL ENGINEERING

Courses offered in B.Tech. in Mechanical Engineering

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 101	Engineering Graphics	3
ME 103	Workshop Practice	2
Humanities Elective		
EG101/ SO101/ BM 101	Communicative English/Sociology/ Elementary Economics	3

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		
BT 101/ ES 101/ CH102	Elements of Modern Biology / Environmental Science / Introductory Material Science	3

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

Fourth Semester

Course Code	Course Title	Cr.
ME 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

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

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

Seventh Semester $

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

Eighth Semester

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

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
ME 424	Theory of Elasticity	3
ME 425	Machine Tools and Machining	3
ME 426	Reliability Engineering	3
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 Mechanics of Solids	3
ME 503	Mechanics of Composite Materials	4
ME 504	Failure Analysis of Materials	3
ME 505	Advanced Dynamics	4

Course Code	Course Title	Cr.
ME 506	Theory of Elasticity and Plasticity	3
ME 507	Theory of Plates and Shells	3
ME 508	Continuum Mechanics	3
ME 521	Robotics	3
ME 522	Quality Engineering	3
ME 523	Non-Conventional Energy	3
ME 524	Operations Management	3
ME 525	Tribology	3
ME 526	Modern Control System	3
ME 527	CAD-CAM	3
ME 528	Energy Conservation and Waste Heat Recovery	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	4
ME 538	Computer-Aided-Design in Engineering	4
ME 539	Optimization Techniques in Engineering	3
ME 540	Evolutionary Algorithms for Optimum Design	3
ME 542	Computational Fluid Dynamics	4

Contd……..

Course Code	Course Title	Cr.
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
ME 601	Automobile Engineering	3

Course Code	Course Title	Cr.
ME 602	Computational Fluid Dynamics and Heat Transfer	3
ME 605	Hybrid Electric Vehicles	3
ME 621	Energy Conservation and Waste Heat Recovery	3
ME 622	Communication Skills for Scientists and Engineers	3
ME 701	Advance Heat Transfer	3

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

$ The 7th semester will start a month later than usual and therefore be shorted by a month. To compensate for it there shall be 4 class hours per week for a 3 credit course.

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.

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

SECTION THREE

POST GRADUATE, UNDER GRADUATE, DEGREE, DIPLOMA AND CERTIFICATE COURSES: Eligibility and Intake for each Programme

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 Courses						
Department/ Centre	**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 2016 is already over**)	4	8	46	4
	Master of Tourism and Travel Management	Bachelor's degree in any discipline with at least 45% marks in major/honours. Candidates not having major/honours must have 50% marks in aggregates	4	8	15	2
Centre for Inclusive Development	**P.G. Diploma in Child Rights and Governance (UNICEF Sponsored)**	Bachelor's Degree in any discipline	2	4	20	1
Centre for Women's Studies	**P.G. Diploma in Women's Studies**	Bachelor's Degree in any discipline	2	4	20	-
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 mark in English	10	14	20	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 or 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 10+2 Examination (Science)	8	12	10	1
Civil Engineering	**B.Tech. in Civil Engineering**	(1) Language, (2) Physics, (3) Mathematics (4) Any one of (Chemistry, Biology, Biotech, Technical vocational subjects), (5) Any other subject with at least 45% (40% in case of candidate belonging to reserved category) marks in above subjects taken together in 10+2 Examination	8	12	50	4
Commerce	**Integrated M.Com.**	Minimum 60% aggregate marks in 10+2 Examination	10	14	30	2
Computer Science and Engineering	**B.Tech. in Computer Science and Engineering**	(1) Language, (2) Physics, (3) Mathematics (4) Any one of (Chemistry, Biology, Biotech, Technical vocational subjects), (5) Any other subject with at least 45% (40% in case of candidate belonging to reserved category) marks in above subjects taken together in 10+2 Examination	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 Examination	6	10	45	-

Degree, Diploma and Certificate Courses						
Department/ Centre	**Programme**	**Eligibility**	**Duration (semesters)**		**Tentative Intake**	
			Min	**Max**	**Merit**	**SSS**
Computer Science and Engineering	**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	GATE :18 TUEE:10	-
Cultural Studies	**M.A. in Cultural Studies**	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	4	8	46	3
Education	**M. A. in Education**	Bachelor's degree with at least 45% marks	4	8	30	5
	2 year B.Ed.	Minimum 55% marks in B.A./B.Sc./B.Tech./B.E.	4	8	50	2
Electronics and Communication Engineering	**B. Tech. in Electronics and Communication Engineering**	(1) Language, (2) Physics, (3) Mathematics (4) Any one of (Chemistry, Biology, Biotech, Technical vocational subjects), (5) Any other subject with at least 45% (40% in case of candidate belonging to reserved category) marks in above subjects taken together in 10+2 Examination	8	12	52	4
	B. Tech. in Electrical Engineering	(1) Language, (2) Physics, (3) Mathematics (4) Any one of (Chemistry, Biology, Biotech, Technical vocational subjects), (5) Any other subject with at least 45% (40% in case of candidate belonging to reserved category) marks in above subjects taken together in 10+2 Examination	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	GATE:18 TUEE:10	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/Neuro Engineering/ 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	GATE:12 TUEE:03	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	GATE:18 TUEE:10	-
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

Degree, Diploma and Certificate Courses						
Department/ Centre	**Programme**	**Eligibility**	**Duration (semesters)**		**Tentative Intake**	
			Min	**Max**	**Merit**	**SSS**
English and Foreign Languages	**Integrated M.A. in English**	First division in 10+2 Examination	10	14	20	2
	Integrated B.A.B.Ed.	First division in 10+2 Examination	8	12	10	2
	Certificate in Chinese	10+2 Examination with 45% of marks in aggregate	2	4	39	-
	M.A. in Linguistics and Endangered Languages	Bachelor's degree in any discipline with 45% marks in major or 50% marks without major	4	8	20	-
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)2 years M.Sc. in Food Technology/Food Processing Technology with a minimum of 60% marks in aggregate (50% in Mathematics in 10+2 level is compulsory. However, it is exempted if the candidate has passed mathematics in programme(s) prescribed as qualification.)	4	8	GATE:15@ TUEE:03	-
	B.Tech. in Food Engineering and Technology	(1) Language, (2) Physics, (3) Mathematics (4) Any one of (Chemistry, Biology, Biotech, Technical vocational subjects), (5) Any other subject with at least 45% (40% in case of candidate belonging to reserved category) marks in above subjects taken together in 10+2 Examination	8	12	30	4
Hindi	**M.A. 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 Courses						
Department/ Centre	**Programme**	**Eligibility**	**Duration (semesters)**		**Tentative In-take**	
			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
	M.A. in Communication for Development	Bachelor's degree in any discipline with at least 55% marks with or without major/honours.	4	8	12	2
Mathematical Sciences	**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 in 10+2 Examination and pass mark in English.	10	14	20	1
	Integrated B.Sc.B.Ed.	First division in 10+2 Examination (Science)	8	12	10	1
Mechanical Engineering	**M. Tech. in Mechanical Engineering**	BE/B.Tech. or equivalent Bachelor's degree in Mechanical, Production, Aerospace, Aeronautical, Metallurgy, Civil, or in any other relevant Engineering discipline.	4	8	GATE:15 TUEE:03	-
	B. Tech. in Mechanical Engineering	(1) Language, (2) Physics, (3) Mathematics (4) Any one of (Chemistry, Biology, Biotech, Technical vocational subjects), (5) Any other subject with at least 45% (40% in case of candidate belonging to reserved category) marks in above subjects taken together in 10+2 Examination	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 in Biology, Chemistry, Physics and/or Mathematics subjects in 10+2 Examination and pass mark in English.	10	14	20	1

Degree, Diploma and Certificate Courses						
Department/ Centre	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 Mathematics, Physics, Chemistry in 10+2 Examination and pass mark in English	10	14	20	1
	Integrated B.Sc.B.Ed. in Physics	First division in 10+2 Examination (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
Vocational Courses	**B.Voc. in Renewable Energy Management$**	10+2 Examination (Science) with 50% marks or equivalent grade in aggregate or NSQF level 4 certificate	6	6	50	-
	B.Voc. in Food Processing$	10+2 Examination (Science) with 50% marks or equivalent grade in aggregate or NSQF level 4 certificate	6	6	50	-

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. Form submitted through the online portal 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).
# Candidates admitted to M.Tech. in Polymer Science and Technology with valid GATE Scores are entitled to get scholarships from AICTE.
@ Any seat remaining vacant after accommodating candidates with valid GATE score will be filled based on TUEE merit list.
$ Additional 5% supernumerary seats for the PWDs.

Candidates who have appeared/are appearing in the qualifying examination may also apply for the entrance examination. Please see the section "Provisional Admission" on Page 13.

SECTION FOUR

Ph.D. PROGRAMME

Ph.D. PROGRAMME

The following departments will admit new Ph.D. students in the academic session 2016-17.

1. Business Administration
2. Chemical Sciences
3. Civil Engineering
4. Computer Science and Engineering
5. Cultural Studies
6. Electronics and Communication Engineering
7. Energy
8. English and Foreign Languages
9. Environmental Science
10. Food Engineering and Technology
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 Regulations" available in the University website under the link Academic Regulations.

COURSE WORK, COURSE REGISTRATION AND ATTENDANCE REQUIREMENT

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)/ Centre's Research Committee (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 step initiated by the University towards implementation of Choice Based Credit Transfer (CBCT) system out of the stipulated credit requirement 4 credits 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 6.0 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 July 25, 2016 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 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. Scanned copy of the Sponsorship / No Objection Certificate from the employer in the prescribed format given in **Annexure VIII** will be required to upload while submitting the application form.

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 nearby 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 have to fulfil the stipulated requirements for Ph.D. admission.

The fee structure for Ph.D. programme is given in **Annexure V.**

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

ADMISSION TEST AND SELECTION

The entrance test will be held only once for the academic year 2016-2017 through TUEE 2016 in all 24 centres across the country along with other programmes. It will be entirely objective type. The test dates are given in the **Annexure II.** The test is not compulsory for candidates with CSIR-UGC JRF. The names of the shortlisted candidates eligible for personal interview will be published in the University website. The shortlisted candidates for the Ph. D. programme in the Autumn may be considered valid for the next Spring semester. *Notification for admission into the Ph.D. programme in the Spring semester will be notified in due course of time.* For the Spring semester, *new applicants with valid JRF* or candidates shortlisted but not selected for admission in the Autumn semester will be eligible for Personal Interview. No separate call letters for personal interview shall be sent to the shortlisted candidates.

Eligibility Criteria for Admission into Ph.D. Programme

School	Department	Qualification
Engineering	**Civil Engineering**	M.E./M.Tech. /M.Sc.(Engg.) in Civil Engg. or allied areas or M.Sc. in relevant discipline with minimum 70% marks in aggregate or equivalent CGPA 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 Technology/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 Engineering or allied areas B.E./B.Tech with 80% marks in aggregate or equivalent CGPA with valid GATE Score
	Energy	M.Sc./M.E./ M.Tech. degree in Energy Technology/ Energy Management/Energy related Engineering and Technology/Physics/Chemistry/Agriculture Allied subjects
Humanities and 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 Languages	M.A. in English (specialization may be in Literature, English Language Teaching or Linguistics) M.A. in Linguistics
	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 MCA M.T.M. / M.T.A. FCA/ FCS/ FICWA
Sciences	**Chemical Sciences**	M.Sc. in all branches of Chemical Science/ Physics/Nanoscience/ 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/ Envi-
	Mathematical Sciences	M.A./ M.Sc. 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 Engineering Sciences / Medical Sciences or in any allied field. B. Tech./ B. E. degree with 80% marks or equivalent CGPA (with GATE score > 90.00 percentile) in Chemical Engineering/ Chemical Sciences/ Bioinformatics or any allied field. MBBS 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/Nanoscience and Technology/Biotechnology/Environmental Science and Chemical Science M.Phil./M.Tech. in Solid State Material/ Material 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.

Relaxation in requisite qualifications for SC/ST candidates shall be followed as per Central Govt. Rules. Reservation of seats for SC/ST/ OBC (NCL), Kashmiri Migrant and Person with Disability (PWD) candidates shall also be as per Central Govt. Rules. The prescribed format of OBC (NCL) certificate is given in **Annexure VI**. A candidate with at least 40% permanent disabilities shall be considered under the PWD category.

Recognised Supervisors and their areas of specialization

The names of available supervisors and their areas of research interests have been indicated in the Departmental Profiles in **Section Five**. For detail information, candidates may contact the Department (**Annexure XII)** or browse through the specific faculty's webpage available in www.tezu.ernet.in.

SECTION FIVE

DEPARTMENT/CENTRE PROFILES

At present the following departments and centres offer various PhD/PG/UG/Diploma/Certificate. Programmes:

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 Assamese Studies
(i) Chandraprabha Saikiani Center for Women's Studies
(j) Centre for Inclusive Development

3. School of Management Sciences:
(a) Department of Business Administration
(b) Department of Commerce

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

Furthermore, Centre for Open and Distance Learning (CODL) also offers a few M.A./M.Sc./PG Diploma Programmes through distance mode.

The profiles of departments/centres 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 has been conducting PG Diploma in Tourism Management since 2002, which shall be upgraded to Master of Tourism and Travel Management with the first batch of students admitted for the Academic Year 2016-17. 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 was conferred with "A" category by Business Chronicle B-School Survey and placed among the top 10 B-School in the Eastern Region. The Department is a recipient of research grant under the UGC-SAP (DRS-I).

Programmes offered

1. Master of Business Administration (MBA) (*Admission process for this programme is already over for the Academic Session 2016-17.*)
2. Master of Tourism and Travel Management
3. Ph.D.

Apart from these regular programmes, the Department conducts frequent FDP, MDP and other capacity building programmes, like, UGC sponsored six month Certificate programme in Air Ticketing and Computerized Reservation System and Tourist Facilitator Training Progrmmes in collaboration with Indian Institute of Tourism and Travel Management (IITTM).

Faculty and Areas of Interest

Professors	
Mrinmoy Kumar Sarma,* Ph.D. (TU)	*Service Marketing*
Chandana Goswami,* Ph.D. (GU)	*Financial Management, General Management*
Subhrangshu Sekhar Sarkar,* Ph.D. (TU) Dean-SoMS	*Accounting, Taxation, Social Development Issues*
Debabrata Das,* Ph.D. (RGU)-HoD	*Financial Management, Financial Markets and Development Finance*
Chandan Goswami,* Ph.D. (TU)	*Marketing, Promotional Strategies, Consumer Behaviour and Tourism*
Papori Baruah,* Ph.D. (TU)	*Change Management and Human Resource Management, Organization Behaviour, Rural Development*
Associate Professors	
Tridib Ranjan Sarma,* Ph.D. (TU)	*Operations Management, Project Management, Tourism*
Anjan Bhuyan,* Ph.D. (TU)	*Economics, Rural Economics, Tourism Management, Entrepreneurship*
Arup Roy,* Ph. D. (TU)	*Microfinance, Stock Market, Development Finance, Social Entrepreneurship.*
Assistant Professors	
Heera Barpujary, Ph.D. (TU)	*Knowledge Management, Web Technology*
Kakali Mahanta, Ph.D. (DU)	*Human Resource Management, Employee Engagement, Work Life Balance*
Runumi Das, Ph.D. (GU)	*Marketing, Rural Marketing*
Mridul Dutta, Ph.D. (GU)	*Community Based Tourism, Intellectual Property Rights*

*** Recognized Supervisor**

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

Facilities

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

Research Activities

No. of papers published in the year 2014-2015: 35
No. of ongoing research projects: 05
No. of current Ph.D. scholars: 26

Selected Publications

1. Baruah, P. and Das, M. B. A study of knowledge, skill and attitude of ASHA workers in facilitating healthcare services in Assam, *Journal of Research, Extension, and Development: A peer reviewed national journal*, 4 (4), 33—36, 2015.
2. Das, D. and Dutta, P. Determinants of operating expense of microfinance institutions; A study on select MFIs in Assam, *The Microfinance Review,* VII(2), 199—211, 2015.
3. Sarkar, S. S. and Ahmed, R. Constraints of MGNREGA as transformative social protection policy: An empirical study in Assam, *International Journal of Research in Commerce, Economics and Management*, 5(7), 12—15, 2015.
4. Sarma, M. K. and Chutia, L. J. Commercial endeavor in the island of Majuli in Assam, Traditional Mishing textiles in transition, *Chitralekha*, 5(2), 2015.
5. Sarma, T. R. A multi-dimensional framework for inventory management, *Journal of Advances in Business Management*, 1(4), 390—394, 2015.

Courses offered in Master of Tourism and Travel Management

First Semester

Course Code	Course Title	Cr.
TM 501	Fundamentals of Tourism	3
TM 502	Destination Geography, History and Heritage	3
TM 503	Fundamentals of Management	3
TM 504	Tourism and Travel Industry	3
TM511/ TM 512	Department Centric Elective -1	3
-	Open Elective– IT Base	3

Second Semester

Course Code	Course Title	Cr.
TM 541	Finance and Accounting for Tourism	3
TM 542	Marketing in Tourism	3
TM 543	Human Resource Management	3
TM 544	Travel Agency and Tour Operation	3
TM 561 / TM 562	Department Centric Elective –II	3
-	Open Elective- Foreign Language Base	3

Third Semester

Course Code	Course Title	Cr.
TM 601	Research Methods	3
TM 602	Tourism Entrepreneurship	3
TM 603	Computerised Reservation System	3
TM 604	Hospitality Management	3
TM 605	Summer Internship	3
TM 611/ TM 612	Department Centric Elective –III	3
-	Open Elective- Foreign Language Base	3

Fourth Semester

Course Code	Course Title	Cr.
TM 641	Destination Planning and Management	3
TM 642	Sustainable Tourism	3
TM 643	Legal and Ethical Issues in Tourism	3
TM 661/ TM662/ TM 663/ TM 644	Department Centric Elective -IV	3
	Department Centric Elective-V	3
	Open Elective	3

Department Centric Elective –I

Course Code	Course Title	Cr.
TM 511	Soft Skill Development	3
TM 512	Leisure Delivery System	3

Department Centric Elective –II

Course Code	Course Title	Cr.
TM 561	Tour Guiding and Local Handling	3
TM 562	Basic Cargo Rating and Handling	3

Department Centric Elective –III

Course Code	Course Title	Cr.
TM 611	Tourism in North East India	3
TM 612	Promotional Strategies in Tourism	3

Department Centric Elective –IV and V

Course Code	Course Title	Cr.
TM 661	Managerial and Financial Decisions for Small Business	3
TM 662	MICE Management	3
TM 663	Tourist Behaviour	3
TM 664	Basic Airfare	3

Courses offered in Master of Business Administration

First Semester

Course Code	Course Title	Cr.
BA 501	Foundations of Management	3
BA 502	Financial Management	3
BA 503	Marketing Management	3
BA 504	Human Resource Management	3
BA 505	Operations Management	3
BA 506	Quantitative Techniques	2
BA 507	Organizational Behaviour	2
-	CBCT	3
-	Elective-I	3

Second Semester

Couse Code	Course Title	Cr.
BA 510	Research Methods in Business	3
BA 511	Managerial Economics and Legal Environment	3
-	Specialization A -I	3
-	Specialization A- II	3
-	Specialization B-I	3
-	Specialization B-II	3
-	CBCT	3
-	Elective_-II	3

Third Semester

Course Code	Course Title	Cr.
BA 601	Management Information System	3
BA 602	Summer Internship Project	3
-	Specialization A-III	3
-	Specialization A-IV	3
-	Specialization B-III	3
-	Specialization B-IV	3
-	CBCT	3
-	Elective-III	3

Fourth Semester

Course Code	Course Title	Cr.
BA 606	Strategic Management	3
BA 607	Business Ethics and Corporate Social Responsibility	2
BA 608	Entrepreneurship Development	2
-	CBCT	3
-	CBCT	3
-	Elective-IV	3

Elective-I
(Any one from the following Courses)

Course Code	Course Title	Cr.
BA 508	Financial Accounting	3
BA 509	Information Technology Management	3

Elective-II
(Any one from the following Courses)

Course Code	Course Title	Cr.
BA 512	Systems Analysis and Design	3
BA 513	Managerial Communication	3
BA 514	Cost and Management Accounting	3

Elective-III
(Any one from the following Courses)

Course Code	Course Title	Cr.
BA 603	International Business Environment	3
BA 604	Operations Research	3
BA 605	Business Online Basics	3

Elective-IV
(Any two from the following Courses)

Course Code	Course Title	Cr.
BA 609	Project Management	3
BA 610	Knowledge Management	3
BA 611	Supply Chain Management	3
BA 612	Organization Effectiveness and Change	3

SPECIALISATION PAPERS

(Students are to take any two Specializations from the areas mentioned below. Students can choose the total credit requirement out of the basket of papers offered within a Specialization in a particular semester.)

AREA –I: MARKETING (Total of 12 Credits Spread over Semester II and Semester III)

SEMESTER -II (Total Credit - 6)

Course Code	Course Title	Cr.
BA 524	Consumer Analysis	3
BA 525	Sales and Distribution Management	3
BA 526	Digital Marketing	3
BA 527	Services Marketing	3

SEMESTER III (Total Credit - 6)

Course Code	Course Title	Cr.
BA 613	Promotional Strategies	3
BA 614	Brand Management	3
BA 615	Retail Management	3
BA 616	Rural Marketing	3
BA 617	Advanced Marketing Research	3

AREA –II: HUMAN RESOURCE MANAGEMENT (Total of 12 Credits Spread over Semester II and Semester III)

SEMESTER -II (Total Credit - 6)

Course Code	Course Title	Cr.
BA 528	Human Resource Development	3
BA 529	Labour Law	3
BA 530	Social and Industrial Psychology	3

SEMESTER –III (Total Credit - 6)

Course Code	Course Title	Cr.
BA 618	Industrial Relations	3
BA 619	Cross Culture and International HRM	3
BA 620	Compensation Management	3

AREA –III: INFORMATION TECHNOLOGY (Total of 12 Credits Spread over Semester II and Semester III)

SEMESTER -II (Total Credit - 6)

Course Code	Course Title	Cr.
BA 531	Database Management System	3
BA 532	Object Oriented Analysis and Design	3
BA 533	Software Engineering	3
BA 534	Web Designing	3

SEMESTER –III (Total Credit - 6)

Course Code	Course Title	Cr.
BA 621	Operating Systems	3
BA 622	Networking and Communication	3
BA 623	Data Mining	3
BA 624	Business Software System Design and Development	3

AREA –IV: OPERATIONS MANAGEMENT (Total of 12 Credits Spread over Semester II and Semester III) (Nomenclature Industrial Management is changed to Operations Management as per experts recommendation.)

SEMESTER -II (Total Credit - 6)

Course Code	Course Title	Cr.
BA 536	Quality Management	3
BA 537	Material Management and Inventory Control	3

SEMESTER –III (Total Credit - 6)

Course Code	Course Title	Cr.
BA 625	Advanced Operation Research and Optimization	3
BA 626	Logistics and Transportation Management	3
BA 627	Process Certification	3
BA 628	Management of Technology	3

Area V: FINANCE (Total of 12 credits spread over Semester II and Semester III.)

SEMESTER -II (Total Credit - 6)

Course Code	Course Title	Cr.
BA 521	Security Analysis and Investment Management	3
BA 522	Financial Institutions and Financial Services	3
BA 523	Corporate Taxation	3

SEMESTER –III (Total Credit - 6)

Course Code	Course Title	Cr.
BA 629	Financial Engineering	3
BA 630	Management Control System	3
BA 631	Trends and Innovations in Financial Sector	3
BA 632	Advanced Financial Management	3
BA 633	International Finance	3
BA 634	Treasury, Forex and Risk Management	3

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

CENTRE FOR INCLUSIVE DEVELOPMENT
(Year of Establishment 2014)

One of the prime objectives of Tezpur University as enshrined in the Tezpur University Act 1993 is "to pay special attention to the improvement of the social and economic conditions and welfare of the people". Further, the Eleventh Plan Document of the Planning Commission emphasizes how institutes of higher education ought to extend their resources and services towards community development. Towards achieving this, Tezpur University has established the Centre for Inclusive Development (CID) as an umbrella organization comprising the Equal Opportunity Cell, SC/ST Cell and the Training & Placement Cell which have a good deal of functional commonality.

The chief activities of the Centre include sensitization and capacity building programmes, academic programmes including research in relevant fields, outreach programmes, etc. Headed by its Director, the Centre is intended to act as an interface between higher education system and the community to facilitate the latter's development. The conceptual essence of the Centre lies in the probation of inclusive development opportunities to all groups subjected to different degrees of exclusion owing to the specific socio-cultural, economic and political fabric of the society.

Facilities
The Centre has a well-equipped computer laboratory with internet connection and instructional audio-video aids. The Centre also has an air-conditioned presentation room and a seminar hall to facilitate student activities such as seminars, workshops, group discussions etc.

Programme offered

1. Post Graduate Diploma in Child Rights and Governance (in collaboration with UNICEF) .

Faculty and Areas of Interest :

Centre Director : Dr. Rajeev K. Doley, Ph.D (IIT Guwahati) - Sociolinguistics.
Education Officer : Ms. Nandarani Choudhury, M.A. (Calcutta), M.A. (Tezpur)-English, Sociology.
Asst. Education Officer : Dr. Bhanu P. Gogoi, Ph.D. (Dibrugarh)- Social and Cultural Anthropology.

Research Activity:

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

Courses offered in Post Graduate Diploma in Child Rights and Governance

First Semester

Course Code	Course Title	Cr.
DCRG101	Understanding Childhood	4
DCRG102	Child Rights as Human Rights-Paper I	4
DCRG103	Exclusion and Vulnerabilities of Children with special focus on North East	4
DCRG104	Governance and Child Rights	4

Second Semester

Course Code	Course Title	Cr.
DCRG201	Governance and Social Policy	4
DCRG202	Child Rights as Human Rights-Paper II	4
DCRG203	Doing Research in Child Rights	4
DCRG204	Project/Internship	4

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

CENTRE FOR OPEN AND DISTANCE LEARNING
(Year of Establishment : 2011)

About Centre for Open and Distance Learning

The Centre for Open and Distance Learning (CODL) was established in 2011 with the aim of disseminating knowledge and imparting quality education through open and distance learning mode. The Centre offers various post- graduate, undergraduate, diploma and certificate programmes in emerging areas of science, technology & engineering, social sciences, management and humanities with flexible system to cater to the needs of the learners who otherwise cannot avail the regular mode of education. The basic focus of the Centre is to prepare human resources of the region and the country by making them skilled and employable.

Vision

To grow into a leading centre for human resource development through distance and open learning system.

Mission

To provide quality higher education at door step through flexible and open learning mode without barriers and in conformity with national priority and societal needs.

Objectives

1. To offer degree, diploma and certificate level programmes of study through distance learning in various emerging subjects across disciplines.

2. To offer job oriented and vocational programmes in flexible terms in line with the national and regional demands for manpower.

3. To contribute to the cause of lifelong learning by providing education without barriers of age and gender.

4. To undertake various research and academic activities for furtherance of distance education in the region.

5. To contribute to the conservation and promotion of cultural heritage, literature, traditional knowledge and environment by conducting short programmes, workshops, seminars and research in interdisciplinary fields.

Study Centres of CODL

Tezpur (Tezpur University)
Napaam, Sonitpur - 784028
Contact: 03712 – 275350/51/57

Guwahati
B. Barooah College, Ulubari, Guwahati—781007
Contact : 98599-77157

Dibrugarh
DHSK College, Dibrugarh—786001
Contact : 99544-81785

DEGREE AND DIPLOMA PROGRAMMES OFFERED BY CODL

Sl. No.	Programme and code	Eligibility	Department and School	Fees in Rupees	Duration (Number of semesters)	
					Min	Max
1	M.A - Mass Communication	Bachelor's degree in any discipline	Mass Communication and Journalism (School of Humanities and Social Sciences)	12,500/-	4	8
2	M. Sc. in Mathematics	Bachelor's degree with Mathematics major/ honours Or Bachelor's degree in Mathematics as one of the main subjects	Mathematical Science. (School of Science and Technology)	11,000/-	4	8
3	P.G Diploma in Governance and Development	Bachelor's degree in any discipline	Sociology (School of Humanities and Social Sciences)	6,800/-	2	4
4	P.G Diploma in Functional Hindi	Bachelor's degree in any discipline	Hindi (School of Humanities and Social Sciences)	6,800/-	2	4
5	P.G Diploma in Retail Management	Bachelor's degree in any discipline	Business Administration (School of Management Sciences)	7,500/-	2	4
6	P.G Diploma in Investment Management	Bachelor's degree in any discipline	Business Administration (School of Management Sciences)	7,500/-	2	4
7	P.G Diploma in Human Resource Management	Bachelor's degree in any discipline	Business Administration (School of Management Sciences)	7,500/-	2	4
8	P.G Diploma in Environmental Management	Bachelor's degree in any discipline	1. Environmental Science 2. Centre for Disaster Management (School of Science and Technology)	8,500/-	2	4
9	PG Diploma in Renewable Energy & Energy Management (REEM)	BE/B Tech or M. Sc. in Physics or Chemistry	Energy (School of Engineering	8,500/-	2	4

M A in English, Assamese, Sociology and Hindi would be introduced soon.

Academic Session

The Academic Session for the programmes under Distance Education will commence twice a year usually in January and July, respectively. All the programmes under the Centre of Open and Distance Learning (CODL) may not be offered in each of the sessions.

Academic Programme
An Academic Programme, or simply, a Programme shall consist of a set of Courses. Completion of the set of courses by a learner prescribed for a programme shall lead to the award of a Degree or a Diploma to the learner concerned.

Course
A course is a unit of instructions or segments of a subject area under any discipline. Each programme shall consist of a set of courses.

ADMISSION

Admission notice
Notice for admission into the different academic programmes of the open and distance learning programmes of the University shall be issued by the Director, Centre for Open and Distance Learning through newspaper and other relevant media at least two months ahead of the date fixed for the commencement of the academic year.

The same shall also be put up in the official website http://www.tezu.ernet.in./tu_codl

Admission procedure
The applications for admission in prescribed forms only, duly filled in and completed in all respects, must reach the Director, Centre for Open and Distance Learning on or before the last date specified for the purpose.

Minimum admission requirement for various degree/diploma programmes

Based on the suggestions of the Academic Council and recommendation of the Board of Management, the qualification for admission into various degree/diploma programmes of the University shall be notified from time to time. The changes shall be incorporated in the Prospectus.

Simultaneous enrolment in programmes of CODL

A learner already enrolled for a programme at the CODL may, if she/he so desires, apply for enrolment into a different programme provided she/he possesses the requisite qualification.

Reservation of Seats

Wherever applicable the relevant Govt. of India rules on reservation shall be adhered to.

Screening and selection of candidates for admission to different degree/diploma programmes and admission

Candidates for some of the programmes may be required to take an eligibility entrance test on the notified dates. Other eligible candidates will be required to get themselves admitted on the notified dates by paying the prescribed fees.

Fees
The fees and other charges payable by the candidates shall be decided by the Academic Council from time to time and incorporated in the Prospectus

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

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.

Programme offered

1. Post Graduate Diploma in Women's Studies.

Faculty and Areas of Interest :

Associate Professor	
Madhurima Goswami, Ph.D. (TU)-HoD	*Gender Studies, Critical Theory, Performance Studies.*
Assistant Professsor	
Mousumi Mahanta., 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

CHEMICAL SCIENCES
(Year of Establishment: 1997)

The Department was established in the year 1997 with the objectives of providing a broad based 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, polymers, nanocomposites, drug delivery, bioinorganic chemistry, surfactant systems, water purification technique, synthetic organic chemistry, theoretical chemistry and green chemistry. The Department has received financial assistance under UGC-SAP and DST-FIST special grants for strengthening teaching, research and training.

Programmes offered

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

Faculty and Areas of Interest

Professors	
M. Lakshmi Kantam, Ph.D. (KU)	*Homogeneous/ Heterogeneous Catalysis*
Swapan Kumar Dolui,* Ph.D. (IITKgp)	*Fibre Reinforced Plastic, Self Reinforced Plastic, Water Based Coating and Adhesive, Diffusion of Small Molecule Through Plastic*
Nashreen Islam,* Ph.D. (NEHU)	*Synthetic Inorganic Chemistry and Biomimetic Chemistry of Transition Metals, Catalysis*
Tarun Kumar Maji,* Ph.D. (CU)	*Grafting of Fibres, Rubber Processing, Reaction Engineering, Emulsion Polymer, Textile Finishing*
Robin Kumar Dutta,* Ph.D. (NEHU)	*Surfactants and Micelles, Water Purification*
Niranjan Karak,* Ph.D. (IITKgp)	*Synthesis of Advanced Polymers, Polymer Nanocomposites and Nanomate - rials*
Ramesh Chandra Deka,* Ph.D. (NCL)-HoD	*Theoretical Chemistry, Catalysis and Drug Design*
Ashim Jyoti Thakur,* Ph.D. (NEIST)	*Heterocyclic Chemistry, Organic Synthesis and Molecular Container Chemistry*
Ashwini Kumar Phukan,* Ph.D. (UoHyd)	*Theoretical Inorganic and Organometallic Chemistry*
Associate Professor	
Ruli Borah,* Ph.D. (NEIST)	*Synthesis of Bioactive Molecule, Development of Green Methodologies for Organic Transformation*
Assistant Professors	
Panchanan Puzari,* Ph.D. (IITG)	*Physical Chemistry, Biosensor*
Kusum Kumar Bania,$ Ph.D. (TU)	*Heterogeneous Catalysis*
Pankaj Bharali,* Ph.D. (IICT)	*Inorganic Materials, Catalysis, Adsorption*
Nayanmoni Gogoi,* Ph.D. (IITB)	*Molecular Magnet, Functional Metal Organic Framework*
Bipul Sarma,* Ph.D. (UoHyd)	*Solid State Chemistry, Supramolecular Chemistry and Crystallography*
Sajal Kumar Das,* Ph.D. (CDRI & JNU)	*Synthetic Organic Chemistry*
Utpal Bora,* Ph.D. (NEIST)	*Synthetic Organic Chemistry*
Sanjeev Pran Mahanta, Ph.D. (UoHyd) Ad-hoc	*Physical Chemistry, Molecular Engineering and Molecular Recognition*
DST Inspire Faculty	
Sanjay Pratihar,$ Ph.D. (IITKgp)	*Inorganic Chemistry, Organometallic Chemistry*

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

LEGENDS: ***KU****-Kurukshetra University, Haryana,* ***IITKgp****-Indian Institute of Technology Kharagpur,* ***NEHU****-North Eastern Hill University, Shillong,* ***CU****-Calcutta University,* ***NCL****- National Chemical Laboratory, Pune,* ***NEIST-****North East Institute of Science and Technology, Jorhat ,* ***UoHyd****-University of Hyderabad,* ***IITG****-Indian Institute of Technology Guwahati,* ***TU****-Tezpur University,* ***IICT****-Indian Institute of Chemical Technology, Hyderabad,* ***IITB-*** *Indian Institute of Technology Bombay,* ***CDRI****-Central Drug Research Institute, Lucknow,* ***JNU****-Jawaharlal Nehru University, New Delhi,* ***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, NMR, 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 Activities

No. of papers published in the year 2014-2015: 139
No. of ongoing research projects : 17
No. of current Ph.D. scholars : 64

Selected Publications

1. Barua, S., Gogoi, B., Aidew, L. Buragohain, A. K., Chattopadhyay, P. and Karak, N, Sustainable Resource based Hy perbranched Epoxy Nanocomposite as an Infection Resistant, Biodegradable, Implantable Muscle Scaffold, *ACS Sustainable Chemistry & Engineering,* 3, 1136—1144, 2015.

2. Borthakur, B. and Phukan, A. K. Moving toward Ylide-Stabilized Carbenes, *Chemistry–A European Journal,* 21 (32), 11603—11609, 2015.

3. Bharali, D., Devi, R., Bharali, P. and Deka, R. C. Synthesis of high surface area mixed metal oxide from the NiMgAl LDH precursor for nitro-aldol condensation reaction, *New Journal of Chemistry*, 39, 172—178, 2015.

4. Gogoi, S., Borah, H., Dutta, R. R. and Puzari, P. Evaluation of diffusion coefficient of Thiocholine in enzyme loaded polypyrrole composite film through different methods and electrode polarization, *Journal of Physical Chemistry B,* 119(13), 4749—4757, 2015.

5. Gogoi, S. R., Boruah, J. J., Sengupta, G., Saikia, G., Ahmed, K., Bania, K. K. and Islam, N. S. Peroxoniobium(V)-catalyzed selective oxidation of sulfides with hydrogen peroxide in water: a sustainable approach, *Catalysis Science & Technology*, 5, 595—610, 2015.

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
MI101	Mathematics-I	3
ED 104	Communicative English	2
ED 105	Basics in Computer Applications	3

Second Semester

Course Code	Course Title	Cr.
PI 102	Physics-II	3
CI 102	Chemistry-II	4
BI 102	Biology-II	3
MI102	Mathematics-II	3
ES 102	Elementary Environmental Science	3
SC 102	Basic Sociology	3
NS 102	National Service Scheme	2

Third Semester

Course Code	Course Title	Cr.
CI 201	Chemistry-III	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	3
PI 211	Quantum Physics	3
-	CBCT -V	3

Fourth Semester

Course Code	Course Title	Cr.
CI 202	Chemistry -IV	3
CI 204	Physical Chemistry-II	3
CI 206	Organic Chemistry-II	3
CI 208	Inorganic Chemistry-II	3
CI 210	Chemistry Laboratory-II	3
MI 212	Introductory Statistics	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

Note: 1. CBCT-I to CBCT -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
EG 102	Communicative English-II	3
ES 102	Elementary Environmental Sci-ence	3
ES 542	Laboratory Guidance and Safety	3
SC 102	Basic Sociology	3
BM101	Elementary Economics	3

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

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

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 States Chemistry	3
CI 514	Biomolecular Chemistry	3
CI 515	Environmental and Green Chemistry	3
CI 516	Computational Chemistry and Numerical Analysis	3

Courses Offered in Integrated B. Sc.-B.Ed. in Chemistry

First Semester

Course Code	Course Title	Cr.
PD 101	Physics-I	3
CD 101	Chemistry-I	4
BD 101	Biology-I	3
MD 101	Mathematics-I	3
ED 104	Communicative English	3
ED 105	Basics in Computer Application	3
ED 106	Education: An Evolutionary Perspective	3

Second Semester

Course Code	Course Title	Cr.
PD 102	Physics-II	3
CD 102	Chemistry-II	4
BD 102	Biology-II	3
MD 102	Mathematics-II	3
NS 106	National Service Scheme/NCC	2
ED 107	Education and Development	3
-	CBCT Elective	3

Third Semester

Course Code	Course Title	Cr.
CD 201	Physical Chemistry-I	3
CD 203	Organic Chemistry-I	3
CD 205	Inorganic Chemistry-I	3
PD 211	Quantum Physics	3
ED 202	Learner and Learning	3
ED 205	Environmental Education	3
MD211	Numerical Methods and Integrals	3
-	CBCT Elective	3

Fourth Semester

Course Code	Course Title	Cr.
CD 202	Physical Chemistry-II	3
CD 204	Organic Chemistry-II	3
CD 206	Inorganic Chemistry-II	3
PD 216/ BI 224	Thermodynamics and Optics / Ecology and Environmental Biology	3
PD 298	Laboratory-II	4
ED 203	Contemporary Issues in Education	3
ED 204	Assessment and Evaluation	3
MD 212	Introductory Statistics	3

Fifth Semester

Course Code	Course Title	Cr.
ED 301	Teaching Approaches and Learning Resources	3
ED 302	Classroom Organization and Management	3
CD 301	Physical Chemistry-III	3
CD 303	Organic Chemistry-II	3
CD 305	Inorganic Chemistry-II	4
CD 307	Chemistry Laboratory III	
	CBCT Elective III	3

Sixth Semester

Course Code	Course Title	Cr.
CD 302	Physical Chemistry-IV	3
CD 304	Organic Chemistry-IV	3
CD 306	Principles and Applications of Spectroscopy	3
ED 303	School Education in North East India	2
ED 308	Pedagogy A: Physical Science I	3
ED 307/ ED 309	Pedagogy B: Mathematics I / Pedagogy B: Biological Science I	3
	CBCT Elective	3

Seventh Semester

Course Code	Course Title	Cr.
ED 404	Initial School Experience/School Internship- I	3
ED 408	Pedagogy A: Physical Science II	3
ED 407/ ED 409	Pedagogy B: Mathematics II/ Pedagogy B: Biological Science II	3
CD 401	Quantum Chemistry and Chemical Bonding	3
CD 403	Inorganic Chemistry-IV	3
CD 405	Chemistry Laboratory IV	3
	CBCT Elective	3

Eighth Semester

Course Code	Course Title	Cr.
CD 402	Chemistry Laboratory V	3
CD 404	Chemistry Laboratory VI	2
ED 405	School Internship II (16 weeks)	12
	CBCT Elective	3

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	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	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	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 States 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 509	Polymer Synthesis and Analysis Laboratory	3
-	Elective- I	3
-	CBCT	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 517	Polymer Processing and Testing Laboratory	3
-	Elective- II	3
-	Elective- III	3
-	CBCT	3

Third Semester

Course Code	Course Title	Cr.
PT 605	Project- I	9
-	Elective- IV	3
-	CBCT	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 Polymers	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

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 education, 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	
Utpal Kumar Das,* Ph.D. (GU)- HoD	*Geotechnical Engineering*
Assistant Professors	
Ankurjyoti Saikia., Ph.D. (TU)	*Geotechnical Engineering*
Kamal Uddin Ahamad,* Ph.D. (IITG)	*Environmental Engineering*
Briti Sundar Sil,* Ph.D. (NIT) (On lien)	*Water Resources Engineering*
Binanda Khungur Narzary, M. Tech. (IITG)	*Transportation Engineering*
Debaraj Bailung Sonowal, M. Tech. (IITR)	*Structural Engineering*
Shailen Deka, Ph.D. (IITG)	*Geotechnical Engineering*
Jayanta Deori Bharali, M.Tech. (IITG)	*Transportation Engineering*
Abhishek Das, M. Tech. (IISc)-Ad-hoc	*Structural Engineering*
Rituraj Buragohain, M. Tech. (IITG)-Ad-hoc	*Water Resources Engineering*
Arunav Chakraborty, M. Tech. (GU)-Ad-hoc	*Geotechnical Engineering*

*** Recognized Supervisor**

*LEGENDS: **GU**-Gauhati University, **TU**-Tezpur University, **IITG**-Indian Institute of Technology Guwahati, **NIT**-National Institute of Technology, Silchar, **IITR**-Indian Institute of Technology Roorkee, **IISc-I**ndian Institute of Science, Bangalore, **AEC**-Assam Engineering College, Guwahati, **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

Research Activities

No. of papers published in the year 2014-2015 : 04
No. of current Ph.D. scholars : 06

Selected Publications

1. Ahamad, K. U., Sonowal, D. B., Kumar, V., Nikhil, N. and Medhi, N. Study on the impact of pre-sedimentation and consequently optimization of alum dose in water treatment process, *Water Practice & Technology*, 9(3), 417—429, 2014.
2. Deka, S., Dash, S. K. and Sreedeep, S. Strength of lime-treated fly ash using bentonite, *Geotechnical Engineering Journal (Journal of the South East Asian Geotechnical Society & Association of Geotechnical Societies of South East Asia)*, 46(3), 2015.
3. Hussain, I., Ahamad, K. U. and Nath, P. Water turbidity sensing using a smart phone, *Royal society of Chemistry Advances*, Doi: 10.103/C6RA02483A, 2016.
4. Saikia, A. and Das, U. K., Analysis and design of open trench barriers in screening steady state surface, *Earthquake Engineering and Engineering Vibration,* 13(3), 545—554, 2014.
5. Saikia, A. Numerical study on screening of surface waves using a pair of softer backfilled trenches, *Solid Dynamics and Earthquake Engineering*, 65, 206—213, 2014.

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

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

Integrated Master of Commerce (B. Com Module.)

(This programme has option of lateral exit after successful completion of six semesters with B. Com. (Honours) degree and lateral entry in the Seventh Semester (subject to fulfillment of eligibility criteria) for the M. Com. Degree. Admission into the Autumn Semester 2016 is only for the B. Com. (Honours) module. Admission into the M. Com. module will begin from Autumn Semester 2017, subject to availability of seats)

Faculty and Areas of Interest

Professor	
Subhrangshu Sekhar Sarkar,* Ph.D. (TU)- HoD (i/c) and Dean-SoMS	*Accounting, Taxation, Social Development Issues*
Assistant Professors	
Reshma Kumari Tiwari, Ph.D (GU)	*Accounting, Financial Inclusion and Microfinance*
Rishabh Goswami, M. Com, (GU) (Ad Hoc)	*Accounting and Finance*

*** Recognized Supervisor**

LEGENDS: ***TU****-Tezpur University,* ***SoMS****-School of Management Sciences,* ***GU****-Gauhati University,* ***HoD****-Head of the Department.*

Facilities

ICT equipped classrooms and E-Coaching facility to enable students to pursue Professional courses, Personalised attention due to small batch size, Project based, immersion oriented classroom teaching pedagogy.

Research Activities

No. of paper published in the year 2014-2015: 03

Selected Publications

1. Tiwari, R. K. Fraud examination: investigators perspective, *Kangleipak Business Review,* VIII, 106—113, 2014.
2. Tiwari, R. K. Innovative learning pedagogy in business schools, *International Journal of Research In Commerce, Economics & Management*, 4(8), 44—47, 2014.
3. Tiwari, R. K., Das, D. and Debnath, J. Non-core assets and disclosure requirements, *The IUP Journal of Accounting Research & Audit Practices,* XIV(3), 29—37, 2015.

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	4

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 Group A or Group B)

Group A: Accounting and 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 and 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	Operations Research	4
IC 605	Management Information System	4
IC 606	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.

*** The course structure is subject to change.**

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

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 Department has been carrying out active research in the fields of computational theory, computer networks, network security, mobile computing, soft computing and data mining, natural language processing, workflow management, qualitative spatial reasoning, web services, rehabilitation robotics, pattern recognition, bio informatics, image processing algorithms, computational geometry, machine learning and remote sensing image analysis.

Programmes offered

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

Faculty and Areas of Interest

Professors	
Malay Ananda Dutta,* Ph.D. (IITK)	*Optimization, Computational Theory*
Dilip Kumar Saikia,* Ph.D. (IITKgp) -On lien as Director, NIT, Meghalaya	*Networks, Mobile Computing*
Dhruba Kumar Bhattacharyya,* Ph.D. (TU), Dean, Academic Affairs	*Data Mining, Network Security, Bio-informatics*
Smriti Kumar Sinha,* Ph.D. (TU)	*Workflow Automation, Web Theory*
Shyamanta Moni Hazarika,* Ph.D. (Leeds) -HoD	*Knowledge Representation and Reasoning, Rehabilitation Robotics*
Utpal Sharma,* Ph.D. (TU)	*Natural Language Processing*
Nityananda Sarma,* Ph.D. (IITG)	*Wireless Networks and Mobile Computing*
Associate Professors	
Sarat Saharia,* Ph.D. (TU)	*Pattern Recognition*
Bhogeswar Borah,* Ph.D. (TU)	*Data Mining, Image Processing*
Bhabesh Nath,* Ph.D. (TU)	*Data Mining*
Siddhartha Sankar Satapathy,$ Ph.D. (TU)	*Computational Biology and Bioinformatics, Wireless Sensor Network*
Assistant Professors	
Sarangthem Ibotombi Singh, MCA (MU)	*Service Oriented Systems, Trust and Reputation*
Loitongbam Basantakumar Singh, M. Tech. (TU)	*Object Recognition, Trust and Reputation*
Rosy Sarmah,* Ph.D. (TU)	*Data Mining, Bioinformatics, Image Processing*
Sanjib Kumar Deka, M. Tech. (TU)	*Cognitive Radio Network, Operating System*
Debojit Boro, M. Tech. (TU)	*Network Security*
Arindam Karmakar,* Ph.D. (ISI)	*Algorithms, Computational Geometry*
Sanghamitra Nath, M. Tech. (TU)	*Speech Processing*
Swarnajyoti Patra,* Ph.D. (JU)	*Pattern Recognition, Machine Learning, Remote Sensing, Image Analysis*
Zubin Bhuyan, M. Tech. (TU)	*Knowledge Representation and Reasoning*
Shobhanjana Kalita, M. Tech. (TU)	*Knowledge Representation and Reasoning*

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

LEGENDS: ***IITK****-Indian Institute of Technology Kanpur,* ***IITKgp****-Indian Institute of Technology Kharagpur,* ***NIT-****National Institute of Technology,* ***TU****-Tezpur University,* ***SoE****-School of Engineering,* ***Leeds****-University of Leeds, England,* ***IITG****-Indian Institute of Technology Guwahati,* ***MU****-Manipur University,* ***ISI****-Indian Statistical Institute, Kolkata,* ***JU****-Jadavpur University, Kolkata,* ***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 Activities

No. of Journal papers published in the year 2014-2015: 40
No. of ongoing research projects: 07
No. of current Ph.D. scholars: 44

Selected Publications

1. Bhuyan, M. H., Bhattacharyya, D. K. and Kalita, J. K. An empirical evaluation of information metrics for low-rate and high-rate DDoS attack detection, *Pattern Recognition Letters*, 51, 1—7, 2015.

2. Das, D., Sharma, S. and Bhattacharyya, D. K. Detection of cross-site scripting attack under multiple scenarios, *The Computer Journal*, 58(4), 808—822, 2015.

3. Hussain, I., Ahmed, Z. I., Sarma, N. and Saikia, D. K. A QoS-aware dynamic bandwidth allocation scheme for multi-hop WiFi-based long distance networks, *EURASIP Journal on Wireless Communications and Networking*, 160, 2015.

4. Kakoty, N. M., Saikia, A. and Hazarika, S. M. Exploring a family of wavelet transforms for EMG based grasp recognition, *Journal of Signal Image and Video Processing*, 9(3), 553—559, 2015.

5. Sarmah, A. K., Hazarika, S. M. and Sinha, S. K. Formal concept analysis: current trends and directions, *Artificial Intelligence Review,* 44(1), 47 — 86, 2015.

Courses offered in M. Tech. in Information Technology

First Semester

Course Code	Course Title	Cr.
CS 531	Object Oriented Programming and Design	5
IT 611	Distributed Systems	3
CS 634	Selected Topics in Computer Networks	4
-	Elective-I	3
-	CBCT	3

Second Semester

Course Code	Course Title	Cr.
CS 601	Design and Analysis of Algorithms	3
IT 610	Advanced Database System	4
-	Elective-II	3
-	Elective-III	3
-	CBCT	3

Third Semester

Course Code	Course Title	Cr.
IT 604	Term Project-I	8
-	Elective-IV	3
-	CBCT	3

Fourth Semester

Course Code	Course Title	Cr.
IT 605	Term Project-II	16

Elective Courses

Course Code	Course Title	Cr.
CS 424	Formal Language and Automata	3
CS 502	System Software	3
CO 503	Fuzzy Logic and Neural Networks	3
CO 504	Natural Language Processing	3
CS 505	Software Engineering	4
CS 507	Computer Networks	4
CS 508	Database Management Systems	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 529	Embedded Systems	4
CS 532	Compiler Design	4
CS 538	Computational Geometry	3
CS 602	Image Processing	3
CS 606	Computer Architecture and Parallel Processing	3

Course Code	Course Title	Cr.
CS 607	Optimization Technique	3
CS 610	Bioinformatics	3
CS 621	Mobile Computing	4
CS 625	Web Technology	4
CS 725	Knowledge Representation and Reasoning	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 517	Pattern Recognition	4
IT 518	Graph Theory	3
IT 523	Discrete Mathematics	3

Courses offered in Master of Computer Application

First Semester

Course Code	Course Title	Cr.
CS 404	Programming and Problem Solving	5
CS 405	Discrete Mathematics	3
CS 406	Digital Logic	4
CS 407	Information and Communication Technology	4
-	CBCT	3

Second Semester

Course Code	Course Title	Cr.
CS 403	File Structures	2
CS 408	Data Structures	5
CS 409	Computer Organization and Architecture	5
-	Elective	-
-	Elective	-
-	CBCT	3

Third Semester

Course Code	Course Title	Cr.
CS 502	System Software	3
CS 508	Database Management	5
CS 509	Data Communication	4
-	Elective	-
-	Elective	-
-	CBCT	3

Fourth Semester

Course Code	Course Title	Cr.
CS 504	Operating System	4
CS 505	Software Engineering	4
CS 507	Computer Networks	4
-	Elective	-
-	Elective / CBCT	-
-	CBCT	3

Fifth Semester

Course Code	Course Title	Cr.
CS 514	Minor Project	8
-	Elective	-
-	Elective	-
-	CBCT	3
-	CBCT	3

Sixth Semester

Course Code	Course Title	Cr.
CS 515	Major Project	16

Elective Courses

Course Code	Course Title	Cr.
CS 421	Graph Theory	3
CS 422	Numerical Methods	4
CS 424	Formal Language and Automata	3
CS 522	Computer Graphics	4
CS 523	Enterprise Resource Planning	3
CS 524	Theory of Computation	3

Course Code	Course Title	Cr.
CS 525	Artificial Intelligence	3
CS 526	Management Information Systems	3
CS 528	Digital Signal Processing	4
CS 529	Embedded Systems	4
CS 531	Object Oriented Programming and Design	5
CS 532	Compiler Design	4

Elective Courses

Course Code	Course Title	Cr.
CS 538	Computational Geometry	3
CS 601	Design and Analysis of Algorithms	3
CS 602	Image Processing	3
CS 605	Simulation and Modeling	4
CS 606	Computer Architecture and Parallel Processing	3
CS 609	Geographic Information Systems	3
CS 610	Bioinformatics	3
CS 621	Mobile Computing	4
CS 625	Web Technology	4
CS 725	Knowledge Representation and Reasoning	4

Course Code	Course Title	Cr.
CO 503	Fuzzy Logic and Neural Network	3
IT 504	E-Commerce	3
IT 507	Computer Security and Cryptography	3
IT 509	Data Mining and Data Warehousing	4
IT 517	Pattern Recognition	4
IT 611	Distributed Systems	3
BM 421	Accounting and Financial Management	3
BM 501	Foundation of Management	3
BM 504	Managerial Economics	2
MS 509	Probability and Statistics	4

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

CULTURAL STUDIES
(Year of Establishment: 1995)

Established in 1995, 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. The department is supported by UGC-SAP (DRS-I).

Programmes offered

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

Faculty and Areas of Interest

Professors	
Pradip Jyoti Mahanta,* Ph.D. (GU), Dean-HSS	*Cultural History, Old Assamese Literature, Performing Arts*
Sunil Kumar Dutta,* Ph.D. (VB)	*Folklore Studies, Assamese Language and Culture*
Debarshi Prasad Nath,* Ph.D. (RGU)-HoD	*Gender Studies, Comparative Literature, Translation, Critical Theory*
Assistant Professors	
Madhurima Goswami,# Ph.D. (TU)	*Sanskrit Poetics, Indian Classical Performing Arts*
Parasmoni Dutta,* Ph.D. (TU)	*Heritage Studies, Folklore Studies, New Museology*
Juri Gogoi Konwar,* Ph.D. (DU)	*Medical Anthropology, Anthropology of Food and Costume*
Jayanta Vishnu Das, Ph.D. (TU)	*Cultural Communication, Development Communication, Epistemology of Communication Studies*
Mandakini Baruah, Ph.D. (TU)	*Gender Studies, Folklore Studies, Paremiology*
Hashik, N.K, Ph.D. (UoHyd)	*Performance Studies, Community Studies, Research Methodology*

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

*LEGENDS: **GU**-Gauhati University, **HSS**-Humanities and Social Sciences, **VB**-Visva Bharati, Santiniketan, **RGU**-Rajiv Gandhi University, Itanagar, **TU**-Tezpur University, **DU**-Dibrugarh University, **UoHyd**-University of Hyderabad, **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 Activities
No. of papers published in the year 2014-15: 17
No. of ongoing research projects: 02
No. of current Ph.D. scholars: 23

Selected Publications

1. Baruah, M. The narrative construction of masculinity in Assamese folktales with reference to Lakshminath Bezbarua's Burhi Air Sadhu in North-East India, in *The Paradym of Historical, Socio-Economic and Cultural In teraction* , G. Pathak (Ed.), Jnananda Prakashan, New Delhi, 19—25, 2014.

2. Das, J. V. Documentaries as protests: Voices of unrest from Manipur, in *Media and Women: Emerging Perspectives*, G. P. Pandey (Ed.), Sunrise Publications, New Delhi, 2014.

3. Konwar, J. G. and Swargiari, D. Conflicting idea of 'Victim' and 'Perpetrator' in witch-hunting: A case study in the state of Assam, India, *International Journal of Humanities and Social Studies*, 3(5), 132—139, 2015.

4. Nath, D. P. Inequality of languages and the question of choice in translation, *Translation Today*, 9(1), 56—67, 2015.

5. Nath, D. P. and Liyanage, D. Intertextuality and localization in Srilankan advertisements: A contemporary analysis with special reference to telecommunication TV commercials, *Critical Arts,* 29(3), 367—381, 2015.

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/dtcf

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 Science. The first program offered by the Department of Education is Integrated B.Sc. B.Ed. and B.A. B.Ed. Programmes. These Four-Year Integrated programmes aim at producing prospective teachers with sound knowledge of the content, pedagogy and skills needed for the society. The department has also started post-graduate and doctoral programmes in Education from autumn semester, 2015.

Programmes offered

1. Two year B. Ed.
2. Integrated B.A. B.Ed.
3. Integrated B.Sc. B.Ed.
4. M.A. in Education
5. Ph. D.

Associate Professor	
Anjali Sharma, Ph.D. (DBRAU)-HoD	*Educational Administration, Planning and Financing, Curriculum Development, Special Education*
Assistant Professor	
Yeasmin Sultana, Ph.D. (AU)	*Language Education and Research Methodology*
R.D. Padmavathy, M.Ed. (PU)	*Mathematics Education, Educational Psychology, Educational Technology, e-content Development, Research Methodology and Statistics in Education, Guidance and Counselling, Environmental Education*
Hitesh Sharma, Ph.D. (DAV)	*Method of teaching physical science and biological science Educational Psychology, ICT in Education, Educational Administration, Guidance and counselling, Early Childhood Education*
Sashapra Chakrawarty, M.Ed. (RIE)	*Biological Science, Educational Psychology, Teacher Education, Elementary Education, Special Education, Guidance and counselling*
Dr. Pratima Pallai, 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,* ***HoD****-Head of the Department*

Facilities

The teaching support infrastructure includes a Psychological Laboratory and Education Technology Laboratory, Curriculum Laboratory, Art and Craft Resource Centre.

Research Activities

No. of paper published in the year 2014–15: 28
No. of current Ph.D. scholars: 01

Selected Publications

1. Chakrawarty, S. Effect of intervention programme on development of awareness on environmental pollution, *International Journal of Advanced Research*, 3(5), 1410—1419, 2015.

2. Padmavathy, R. D. Error as an opportunity tool: to enhance statistics and probability knowledge among high school students, *International Journal of Scientific Research*, 4(5), 3—4, 2015.

3. Pallai, P. A. Qualitative study on effectiveness of different modes of teacher orientation programme, *Education India Journal: A Quarterly Refereed Journal of Dialogues on Education*, 4(3), 25—27, 2015.

4. Sharma, A. Role of media in transforming society, *University News: A Weekly Journal of Higher Education*, 53(38), 11—16, 2015.

5. Sharma, H. Influence of personality and multimedia on achievement of B.Ed. students of Madhya Pradesh, *Edu cation India Journal: A Quarterly Refereed Journal of Dialogues on Education*, 4(3), 210—220, 2015.

Courses offered in two year B. Ed. programme in Education

First Semester

Course Code	Course Title	Cr.
BD 401	Human Growth and Development	5
BD 402	Contemporary Indian Education	5
BD 403	Language across the Curriculum	4
BD 404	Understanding Disciplines	4
BD 405	Reading and Reflecting on Texts	2
	CBCT I	3

Second Semester

Course Code	Course Title	Cr.
BD 501	Teaching Learning and Manage-ment	4
BD 502/ BD 503/ BD 504/ BD 505/ BD 506/ BD 507/ BD 508	Teaching of Assamese -Part I/ Teaching of English -Part I/ Teaching of Hindi -Part I/ Teaching of Social Science -Part I/ Teaching of Physical Science-PartI/ Teaching of Mathematics -Part I/ Teaching of Biological Sc. -Part I	4
BD 509	Knowledge and Curriculum -Part I	4
BD 510	Assessment and Evaluation	4
BD 511	Drama and Art in Education	2
	CBCT (Foundation Course)	3
	CBCT II	3

Third Semester

Course Code	Course Title	Cr.
BD 602/ BD 603/ BD 604/ BD 605 BD 606/ BD 607/ BD 608	Teaching of Assamese -Part II/ Teaching of English -Part II/ Teaching of Hindi -Part II/ Teaching of Social Science -Part II/ Teaching of Physical Science-PartII/ Teaching of Mathematics -Part II/Teaching of Biological Sc. -Part II	4
BD 601	School Internship	14
	CBCT III	3

Fourth Semester

Course Code	Course Title	Cr.
BD 701	Gender, School and Society	3
BD 702	Knowledge and Curriculum -Part II	4
BD 703	Creating an Inclusive School	3
BD704/ BD705/ BD706/	Guidance and Counselling / Peace Education/ Environmental Education	3
BD 707	Critical Understanding of ICT	4
BD 708	Understanding the Self	2
	CBCT IV	3

Courses offered in Four Year Integrated B.A. B.Ed. in Education

First Semester

Course Code	Course Title	Cr.
ED 104	Communicative English	3
ED 101	Education and Development I	3
ED 105	Basics in Computer Applications	3

Second Semester

Course Code	Course Title	Cr.
ED 102	Education and Development II	3
ED 103	Environmental Education	3
ED 106	N.S.S/ N.C.C	2

Third Semester

Course Code	Course Title	Cr.
ED 201	Education: An Evolutionary Perspective	3
ED 202	Learner and Learning	3

Fourth Semester

Course Code	Course Title	Cr.
ED 203	Contemporary issues in Education	3
ED 204	Assessment and evaluation	3

Fifth Semester

Course Code	Course Title	Cr.
ED 301	Teaching : Approaches and Strategies	3
ED 302	Classroom Organisation and Management	3

Sixth Semester

Course Code	Course Title	Cr.
ED 304/ 305	Pedagogy A:Language I (Assamese)/English	3
ED 306	Pedagogy B: Social Science I	3
ED 307	School Education in North East India	2

Seventh Semester

Course Code	Course Title	Cr.
ED 401/ 402	Pedagogy A:Language II (Assamese)/English	3
ED 306	Pedagogy B: Social Science II	3
ED 307	Initial School Experiences/School Internship-I (Four Weeks)	3

Eighth Semester

Course Code	Course Title	Cr.
ED 405	School Internship-II (Sixteen Weeks)	12

Courses offered in M. A in Education

First Semester

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

Second Semester

Course Code	Course Title	Cr.
MA 201	Sociology of Education	4
MA 202	Measurement and Evaluation in Education	4
MA 203	History and Contemporary Issues in Indian Education	4
MA 204/ MA 205	Education Administration, Planning and Financing/Education for special needs children	4
ED 113	Foundation Course: Professionalism in Teacher Education	3
-	CBCT - II	3

Third Semester

Course Code	Course Title	Cr.
MA 301	Curriculum Studies	4
MA 302	Statistics in Education	4
MA 303	Teacher Education	4
MA 304/ MA 305	Educational Guidance and Counselling / Open and Distance Learning	4
-	CBCT - III	3

Fourth Semester

Course Code	Course Title	Cr.
MA 401	Comparative Education: National and International Prospective	4
MA 402	Principles and Techniques of Teaching	4
MA 403	Practical Work	3
MA 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)

Established in 1997 , the Department of Electronics and Communication Engineering is one of the oldest departments in the University. Starting with M. Tech Programme in Electronics Design and Technology in 1997, the department has subsequently introduced another M. Tech. programme in Bioelectronics under the 'Teaching and Research in Interdisciplinary and Emerging Areas' scheme of the University Grants Commission. The department expanded its academic activities to undergraduate programmes, first with a B. Tech. programme in Electronics and Communication Engineering in 2006 followed by another B. Tech. programme in Electrical Engineering in 2014. The department also has an ongoing three year diploma programme in Advanced Diploma in Healthcare Informatics and Management under the career oriented scheme of the University Grants Commission. In addition, the department offers Ph.D. programme in different areas including Signal & Image Processing, Bioelectronics, Biosensors, Microwave Engineering, Communication Engineering and Microelectronics. At present, the department has a student strength of about 400 which is likely to increase to 600 in the next four years.

The department is supported by DST-FIST, DeitY - MIT and UGC-SAP (DRS-I).

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	
Manabendra Bhuyan,* Ph.D. (GU), Pro-VC	*Sensor Design, Image Processing, Machine Vision*
Partha Pratim Sahu,* Ph.D. (JU),	*Optical Networks and its Components, Wireless Communication*
Jiten Chandra Dutta,* Ph.D. (JU)	*Bio-electronics, Biosensors, Neuorobioengineering*
Satyajib Bhattacharyya,* Ph.D. (DU)-HoD	*Microwave Antennas*
Associate Professors	
Santanu Sharma,* Ph.D. (TU)	*Semiconductor, Bioelectronic Devices, Vehicular Electronics*
Soumik Roy,* Ph.D. (TU)	*Neuroengineering.*
Bhabesh Deka,* Ph.D. (IITG)	*Image Processing, Computer Vision, Compressive Sensing MRI*
Vijay Kumar Nath,* Ph.D. (IITG)	*Signal and Image Processing*
Nayan Moni Kakoty, Ph.D. (TU)	*Robotics*
Assistant Professors	
Riku Chutia, Ph. D. (TU)	*E-nose, Instrumentation and signal Processing*
Deepika Hazarika, M. Tech. (IITG)	*Signal Processing*
Ratul Kumar Baruah, Ph.D (IITG)	*VLSI*
Biplob Mondal, Ph.D. (JU)	*VLSI and MEMS Devices*
Durlav Sonowal, M. Tech. (TU)	*Sensors*
Ananya Bonjyotsna, M. Tech. (TU)	*Signal Processing*
Priyanka Kakoty, M. Tech. (TU)	*Intelligent Instrumentation*
Angshuman Sharma., ME (AEC) -Ad-hoc	*Power System Engineering*
Barnam Jyoti Saharia, M.Tech. (NIT)-Ad-hoc	*Power Electronics and Devices*
Munish Manas, M. Tech. (BV) - Ad-hoc	*Power System Engineering*

*** Recognized Supervisor**

*LEGENDS: **GU**-Gauhati University, **JU**-Jadavpur University, Kolkata, **DU-** Delhi University, **TU-**Tezpur University, **IITG**-Indian Institute of Technology Guwahati, **AEC**-Assam Engineering College, Guwahati, **NIT**-National Institute of Technology, Agartala, **BV**-Bharati Vidyapeeth,Pune, **HoD**-*

Facilities

Basic Electrical Engineering Laboratory: It is equipped with DC Motor-Generator sets, 30 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: It 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 & Circuits (AEDC), Integrated Circuits (IC), Electronic Devices and Circuits (EDC), Design of Digital Systems (DDS) are conducted in this lab.

Design and Prototyping Laboratory (Workshop): It is equipped with following machines**:** Lathe machine, drilling machine, milling machine, grinding machine, welding machine, bending machine, spot welding, wood planer, miter saw, hand grinder, power hack-saw, etc. Experiments on Physical and Industrial Design of Electronic 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: It is equipped with a number of computers equipped with software for computer simulation of different M. Tech. project works.

Software Simulation Laboratory: It is equipped with PCs connected to a LAN server and the internet**.** There are up-to-date Circuit Simulators 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), Device Modelling, 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 analyser, etc. Experiments on Principles of Communication (PC). Digital Communication (DC), Control System (CS) and Microprocessors are conducted in this lab.

DSP Laboratory: It is equipped with (i) Software - MATLAB, CCS for DSP, LabView, etc. (ii) Hardware - DSP and FPGA Boards, PCs. Experiments on digital signal processing applications are conducted in this lab.

Computer Vision and Image Processing Laboratory: It is equipped with PCs, digital camera, embedded FPGA Software and Hardware, MATLAB, OpenCV for computer vision and image processing experiments.

Instrumentation Laboratory: It 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, Function Generator, various trainer kits and measuring instruments. **(This lab is under MODROB, AICTE**.)

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

Neuroengineering Laboratory: It is equipped with a power lab system which includes instruments having capabilities of measuring and processing of ECG, EMG, EEG. It has a number of computers, sensors, Robotics setups and various motors.

Optical Fibre Laboratory: It is equipped with He-Ne Laser (630nm), fibre optic connectorization kit, optical fibre communication single channel, single phase lockin amplifier, optical bread-board, etc. This lab is under MODROB, AICTE.

HIM Laboratory: It is equipped with computers for the students of Advanced Diploma in Healthcare Informatics

Micro fabrication/MEMS Facility: Established in 2014, focuses on research and education in the broad area of Microelectronics and Nano Technology covering topics such as MEMS devices, materials, Bio Sensor, Chemical and Gas Sensor etc. Faculty, Research Scholars, M.Tech and B.Tech Students and Students/Research Scholar from other Institutes are engaged in the facility. The Facility has a state-of-the-art Clean Room (Class 1000 and Class

Major equipment are: RIE (Reactive Ion Etching), PECVD (Plasma Enhanced Chemical Vapour Deposition), Photolithography, Vacuum coating unit (Thermal evaporation and E-Beam Technology), Oxidation Furnace, Laminar Air Flow Unit, Spin coating unit, Prism Coupler Water De-ionizer etc.

Research Laboratories : In addition to the above facilities, there are a number of laboratories exclusively for research scholars. They are

1) Power Electronics Laboratory (Vehicular Electronics),
2) Microwave Engineering Laboratory,
3) Wireless Communication Engineering Laboratory,
4) E-nose Laboratory,
5) Computer Vision and Image Processing Laboratory.

Research Activities

No. of papers published in the year 2014-2015: 63
No. of ongoing research projects: 07
No. of current Ph. D scholars: 36

1. Barik, M. A., deka, R. and Dutta , J. C., Carbon nanotube based dual gated junction less field effect transistor for acetylcholine detection, IEEE Sensors Journal, 16 (2), 2016

2. Borah, P. and Bhattacharyya, S., Design of a dual band V-shaped patch Antenna using sorting posts, *Microwave and Optical Technical Letters*, 2(58), 376-378, 2016 .

3. Das, M. P., Bhuyan, M., Talukdar, C., Readour circuits for noise compensation in ISFET Sensory system, *Journal Sensing and Imaging*, 16 (1), 2015.

4. Deka, B., Handique, M. and Dutta, S., Sparse regularization method for detection and removal of random-valued, impulse noise, *Multimedia Tolls and Applications,* 2016.

5. Sahu, P. P., Compact component for Integrated quantum optic processing, *Scientific Reports, Nature* , 5:16276, 2015..

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

First Semester

Course Code	Course Title	Cr.
EL 517	Physical and Industrial Design of Electronics Systems	4
EL 521	Design and Technology of Electronic Devices	4
EL 523	Advanced Programming Language	5
EL 531	Design of Digital Systems	4
-	Elective- I	4
-	CBCT- I	3

Second Semester

Course Code	Course Title	Cr.
EL 516	Design of Fine Mechanics and Power Devices	4
EL 530	VLSI Design	4
EL 532	Intelligent Instrumentation	4
EL 538	Advanced Electronic Devices	3
-	CBCT-II	3
-	CBCT-III	3
-	Elective- II	4

Third and Fourth Semester

Course Code	Course Title	Cr.
EL 601	M. Tech. Dissertation	24

Elective –I
(Any one from the following Courses)

Course Code	Course Title	Cr.
EL 533	Data Communication and Networks	4
EL 535	Information System	4

Elective – II
(Any one from the following Courses)

Course Code	Course Title	Cr.
EL 534	Modeling and Simulation	4
EL 536	Application Software	4

Courses offered in M. Tech. in Bioelectronics

First Semester

Course Code	Course Title	Cr.
BE 509	Biomathematics	3
BE 511	Basic Bioelectronics Laboratory	4
BE 515	Basic Bioelectronics	3
BE 517	Biomedical Signal Processing	4
BE 519	Bioinspired Systems and Engineering	3
-	CBCT -I	3
-	Elective- I	4

Second semester

Course Code	Course Title	Cr.
BE 504	Neuroengineering	3
BE 506	Biomedical Image Processing	4
BE 518	Bioelectronics Systems and Controls	4
BE 524	Advanced Bioelectronics Devices	4
-	CBCT -II	3
-	CBCT -III	3
-	Elective- II	4

Third and Fourth Semester

Course Code	Course Title	Cr.
BE 601	M. Tech. Dissertation	24

Elective -I
(Any one from the following courses)

Course Code	Course Title	Cr.
BE 507	Bioinformatics	4
BE 513	Biomedical Electronics	4

Elective –II

Course Code	Course Title	Cr.
BE 508	BioMEMS and Nanotechnology	4

Courses offered in Advanced Diploma in Healthcare Informatics and Management

Course Code	Course Title	Cr.
HI 101	Introduction to Personal Computer	4
HI 102	Essentials of Information and Communication Technology	4
HI 103	Introduction to Database Design	4
HI 104	Introduction to Computer Networks	4
HI 201	Introduction to Healthcare Informatics	4
HI 202	Hospitals and Clinical Information Systems	4
HI 203	Legal, Ethical and Social Issues in Medical Informatics	3

Course Code	Course Title	Cr.
HI 204	Accounting and Financial Management in Healthcare	3
HI 205	Medical and Electronic Health Records	4
HI 206	Clinical Decision Support Systems and Knowledge Management	4
HI 301	Health Care Information System: Design, Implementation and Management	4
HI 302	Risk and Disaster Management in Healthcare	3
HI 303	Healthcare Technology: Assessment, Planning and Acquisition	3
HI 371	Major Project/ Internship	12

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 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. M. Tech. in Energy Technology
3. Ph. D.

Faculty and Areas of Interest

Professors	
Dhanapati Deka,* Ph.D. (TU) - HoD	*Biofuels, Biomass Assessment, Bioenergy and Environment*
Debendra Chandra Baruah,* Ph.D. (PAU), DSW	*Biomass Energy, Energy Management and Mathematical Modeling and Farm Mechanisation*
Associate Professor	
Rupam Kataki,* Ph.D. (TU)	*Energy and Environment, Biomass Energy*
Assistant Professors	
Sadhan Mahapatra, M.Tech. (JU)	*Biomass Gasification, Climate Responsive Buildings, Decentralized Energy Options, Energy Conservation*
Pradyumna Kumar Choudhury, M.Tech. (TU)	*Energy Conservation and Management, Integration of Renewable Energy Systems*
Biraj Kumar Kakati,* Ph.D. (IITG)	*Fuel Cell, Hydrogen Technology and Redox Flow Battery*
Nabin Sarmah,* Ph.D. (HWU)	*Solar Energy, Photovoltaic, Energy Systems*
Bibha Boro, M.Tech. (TU)	*Electrical Engineering*

***Recognized Supervisor**

LEGENDS: ***TU****-Tezpur University,* ***PAU****-Punjab Agriculture University,* ***DSW****-Dean, Student's Welfare,* ***JU****-Jadavpur University, Kolkata,* ***IITG****-Indian Institute of Technology Guwahati,* ***HWU****-Heriot Watt University, United Kingdom,* ***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 equipments, Wind speed direction measuring equipments, 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. MHRD 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. students of the Department.

Research Activities
No. of papers published in referred journals in 2014 - 2015: 44
No. of ongoing research projects: 06
No. of current Ph.D scholars: 20

Selected Publications

1. Hiloidhari, M. and Baruah, D. C. GIS mapping of rice straw residue for bioenergy purpose in a rural area of Assam, India, *Biomass and Bioenergy*, 71, 125—133, 2014.

2. Kakati, B. K. and Kucernak, A. R. J. Gas phase recovery of hydrogen sulfide contaminated polymer electrolyte membrane fuel cells, *Journal of Power Sources*, 252, 317—326, 2014.

3. Konwar, L. J., Mäki-Arvela, P., Begum, P., Kumar, N., Thakur, A. J., Mikkola, J-P., Deka, R. and Deka, D. Shape se lectivity and acidity effects in glycerol acetylation with acetic anhydride: Selective synthesis of triacetin over Y-zeolite and sulfonated mesoporous carbons, *Journal of Catalysis*, 329, 237—247, 2015.

4. Micheli, L., Sarmah, N., Luo, X., Reddy, K. S. and Mallick, T. K. Design, development and analysis of a densely packed 500× concentrating photovoltaic cell assembly on insulated metal substrate, *International Journal of Photoenergy*, Article ID 341032, 18 pp., 2015.

5. Saikia, R., Chutia, R. S., Kataki, R. and Pant, K. K. Perennial grass (Arundo donaxL.) as a feedstock for thermochemical conversion to energy and materials, *Bioresource Technology*, 188, 265—272, 2015.

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-II	3
-	CBCT -III	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 Buildings	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

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

ENGLISH AND FOREIGN LANGUAGES
(Year of Establishment: 1994)

The Department was established in 1994 with 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. The Department of English and Foreign Language is a UGC-SAP Department

Programmes offered

1. Certificate Course in Chinese
2. Certificate Course in Language Documentation and Revitalization (Admission for this programme is not through TUEE.)
3. Integrated B.A. B.Ed. in English
4. Integrated M.A. in English
5. M.A. in English
6. M.A. in Linguistics and Language Technology
7. M. A. in Linguistics and Endangered Language (Modular). (*Students of 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.)*
8. Ph. D.

Faulty and Areas of Interest

Professors	
Madan Mohan Sarma,* Ph.D. (DU)	*Applied Linguistics, Literatures in English, ELT*
Bijay Kumar Danta,* Ph.D. (UU)	*American Literature, Critical Theory, Fiction Studies*
Farheena Danta,* Ph.D. (DU)	*American Literature, Cultural Studies, Modernist Poetics*
Prasanta Kumar Das,* Ph.D. (GU)	*American Literature, Indian Writing in English*
Madhumita Barbora,* Ph.D. (TU)-HoD	*Linguistics (Syntax, Psycholinguistics), Field Linguistics, Documentation*
Gautam Kumar Borah,* Ph.D. (NTNU)	*Linguistics, Cognitive Semantics, Philosophy of Language*
Associate Professors	
Debasish Mohapatra,* Ph.D. (EFLU, Hyderabad)	*Curriculum Development, Materials Production, Language Policy*
Sravani Biswas,* Ph.D. (NEHU)	*Critical Theory, Indian Writing in English*
Assistant Professors	
Hemjyoti Medhi, Ph.D. (DU^)	*Gender and Literature, New Literatures in English, Indian Vernacular Literature*
Rathijit Chakraborty, M.Phil. (Chinese), (JNU)	*Chinese Language and Literature*
Reetamoni Narzary, M.A. (NEHU)	*Women's Writing, Commonwealth Literature, Indian Writing in English*
Pallavi Jha, Ph.D. (UoHyd)	*Children's Literature, Popular Culture and Literature, Postcolonial Writing*
Sanjib Sahoo,* Ph.D. (TU)	*Indian Writing in English, Ecocriticism, Travel Writing*
Bashabi Gogoi, M. Phil. (EFLU, Shillong)	*Critical Theory, Indian Writing in English*
Arup Kumar Nath,$ Ph.D. (JNU)	*Language Typology, Morphology, Language Endangerment, Multilingualism, Sociolinguistics*
Bipasha Patgiri, M.Phil. (JNU)	*Phonology (Prosody, Dialectology, Language Typology and Syntax)*
Esther Daimari, M. Phil. (GU)	*South Asian Literature*
Pramod Kumar, Ph.D. (JNU)	*Language Description and Documentation, Endangered Languages and Lesser known Languages, Language, Typology, Field Linguistics, General Linguistics*

Nigshen Zingjarwon, M.Phil (Chinese) (JNU)	*Chinese Language and Literature*
Bidyum Medhi, M.Phil (German) (JNU)	*German Language and Literature*
Abhijit Debnath (UoHyd)	*Computational Linguistics, Construction Grammar*

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

LEGENDS: ***DU****-Dibrugarh University,* ***UU****-Utkal University, Odisha,* ***GU****-Gauhati University,* ***TU****-Tezpur University,* ***NTNU****-Norweign University of Science and Technology, Norway,* ***NEHU****- North Eastern Hill University, Shillong,* ***EFLU****- English and Foreign Language University,* ***DU^****-Delhi University,* ***JNU****- Jawaharlal Nehru University, New Delhi,* ***UoHyd****-University of Hyderabad ,* ***CU-****Calcutta University****, 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 Activities

No. of papers published in the year 2014-2015: 15
No. of ongoing projects : 02
No. of current Ph.D. scholars: 33

Selected Publications

1. Barbora, M. *Bugun Nyo Thau: Bugun Reader* (*A collection of Bugun folk tales,stories, proverbs, song, rituals and lexical items),* EBH Publishers (India), 2015.

2. Borah, G. K . *The Fox* or *Mr Fox?* (On Particularization of the Bare Noun), *Journal of Modern Languag*es, 24, 62—70, 2014.

3. Medhi, H. Diversity and Questions of Alliance, in *Gender and Diversity: India, Canada and Beyond,* M. Lal, M. E. Sharma, D. Narula and A. Basra (eds.), Rawat Publishers, Jaipur, 24—259. 2015.

4. Mohapatra, D. Higher Education: Global Challenge and Local Response, in *English Language Teaching in the Twenty First Century: Issues and Challenges,* T. Karunakaran (ed.), Kumaran Book House, Colombo, Sri Lanka., 129—137, 2014.

5. Sarkar, A. Speaking for the Mute: A Note on Translation and Endangerment, in *Studies in Literature and Translation,* S. K. Mishra and A. K. Mishra (eds.), Lakshmi Publication, New Delhi, 14—25, 2014.

Courses offered in M. A. in English

First Semester

Course Code	Course Title	Cr.
EG 442	Jacobean to Victorian Poetry	4
EG 443	18th and 19th Century Fiction	4
EG 445	ELT	4
EG 447	Structure of English	4
-	CBCT-I	3

Second Semester

Course Code	Course Title	Cr.
EG 441	Renaissance Drama	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	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
LG 429	Introduction to Computational Linguistics	3
-	CBCT	3

Third Semester

Course Code	Course Title	Cr.
LG 501	Language Universals and Language Typology	4
LG 502	Semantics	4
LG 503	Natural Language processing	4
-	Elective- I	4
-	CBCT	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	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 -I (mainly on Tibeto Burman Languages)	4
LG 507	Advanced Phonology -I	4
LG 515	Advanced Computational Linguistics-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-II (mainly on Tibeto Burman Languages)	4
LG 513	Advanced Phonology -II	4
LG 516	Advanced Computational Linguistics-II	4

* LG 514 Dissertation (Students will require to write a dissertation of 6000 words on a topic from his/her area of specialization)

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
HN 101	Madhyakalin aur Adhunik Kabya (in Hindi)	3
EG 106	Alternative English -I	3
OPTIONAL COURSES (ANY TWO)		
SO 102	Introduction to Sociology	2
CT 161	Basic Concepts in Cultural Studies -I	2
MC 101	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
NS 102	NSS/NCC	2
MIL (ANY ONE)		
AS 102	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 162	Introduction to Folklore Studies	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(Hindi)	2
OPTIONAL COURSES (ANY TWO)		
SO 201	Society in India	2
CT 163	Basic Concepts in Cultural Studies -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 164	Cultural Studies: Its Development and Trends	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. (Major English)

First Semester

Course Code	Course Title	Cr.
ED 104	Communicative English	3
ED 105	Basic in Computer Application	3
ED 106	Education: An Evolutionary Perspective	3
AS 101/ EG 111	MIL I/ Alternative English I	2
EC 101/ HS 101/ SO 101/ GE 101	Economics I / Sociology I/ History I / Geography I (Any two of the courses)	2+2
EG 102	Reading Literature	4

Second Semester

Course Code	Course Title	Cr.
ED 107	Education and Development	3
NS 106	N.ational Service Scheme/NCC	2
AS 102/ EG 112	MIL II/ Alternative English II	2
EC 102/ HS 102/ SO 102/ GE 102	Economics II / Sociology II History II / Geography II (Any two of the courses)	2+2
EG 103	Modern English Grammar	4
EG 107	Poetry from Chaucer to Dryden	3

Third Semester

Course Code	Course Title	Cr.
ED 202	Learner and Learning	3
ED 205	Environmental Education	3
AS 201/ EG 112	MIL III/ Alternative English III	2
EC 201 / HS 201/ SO 201/ GE 201	Economics III / Sociology III/ History III / Geography III (Any two of the courses)	2+2
EG 108	English Literary History I	3
EG 201	English Drama: Beginning to Shakespeare	4
-	CBCT - I	3

Fourth Semester

Course Code	Course Title	Cr.
ED 203	Contemporary Issues in Education	3
ED 204	Assessment and Evaluation	3
AS 202/ EG 211	MIL/Alt. English IV	2
EC 202 / HS 202/ SO 202/ GE 202	Economics IV /Sociology IV History IV / Geography IV (Any two of the courses)	2+2
EG 210	Fiction from Bunyan to Austen	3
EG 203	Phonetics of English and ELT	4
-	CBCT - II	3

Fifth Semester

Course Code	Course Title	Cr.
ED 301	Teaching: Approaches and Strategies	3
ED 302	Classroom Organization and Management	3
EG 204	Literary Criticism I	4
EG 205	English Literary History II	4
EG 206	Introductory Linguistics	4
-	CBCT - III	3

Sixth Semester

Course Code	Course Title	Cr.
ED 303	School Education in North East India	2
ED 304/ Ed 305	Pedagogy A: Lang. I(Assamese)/ Pedagogy A: Lang. I (English)	
ED 306	Pedagogy B: Social Science I	3
EG 301	Literary Criticism II	4
EG 305	Non-Fictional Prose	4
EG 307	Seminar	2
-	CBCT - IV	3

Seventh Semester

Course Code	Course Title	Cr.
ED 401/ ED 402	Pedagogy A: Lang. II (Assamese) Pedagogy A: Lang. II (English)	3
ED 403	Pedagogy B: Social Science II	3
ED 404	Initial School Experiences/ School Internship-I (Four Weeks)	3
EG 304	Drama: Seventeenth to Twentieth century	4
EG 303	Poetry: Pre-Romantic to Modern	4
-	CBCT- V	3

Eighth Semester

Course Code	Course Title	Cr.
ED 405	School Internship-II (16 Weeks)	12
EG 306	Fiction: Victorian and Modern	4
EG 308	Indian Writing in English	4
-	CBCT- VI	3

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 6000 words on a topic from his / her area of specialization.*

Note: In Modular MA course a student can discontinue on successful completion of two semesters of 38 credits and get awarded 'PG Diploma in Linguistics and Endangered Languages'.

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, Geomorphology, Climate, Atmospheric Processes, Vulnerability & Adaption, Hydrogeochemistry, Vermicomposting, Pollution Remediation, Biodiversity Conservation and Atmospheric System Modeling.

Programmes offered

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

Professors	
Kushal Kumar Baruah,* Ph.D. (PAU)	*Environmental Plant Physiology and Biochemistry*
Kali Prasad Sarma,* Ph.D. (NEHU)	*Water and Soil Pollution, Hydro-geochemistry, Remediation of Toxic Substances*
Associate Professors	
Raja Rafiqul Hoque,* Ph.D. (JNU)	*Air Pollution and Environmental Monitoring and Assessment*
Apurba Kumar Das,* Ph.D. (JNU)-HoD	*Geomorphology, Regional Climate*
Assistant Professors	
Ashalata Devi,* Ph.D. (NEHU)	*Forest Ecology, Wildlife and Biodiversity Conservation*
Nirmali Gogoi,* Ph.D. (DU)	*Stress Physiology and Biochemistry*
Satya Sundar Bhattacharya,* Ph.D. (VB)	*Vermiculture, Plant Nutrition and Soil Fertility Management*
Manish Kumar,* Ph.D. (UT)	*Hydro-geochemistry, Groundwater Modeling, Contaminant Transport, Heavy Metal Speciation, Isotope Fingerprinting, Soil and Water Pollution*
Sumi Handique, M.Sc. (JNU)	*Geochemistry*
Amit Prakash,* Ph.D. (JNU)	*Atmospheric Processes; Air and Noise Pollution Monitoring and Modelling Environmental System Modelling, Urban Climate*
Sudip Mitra,* Ph.D. (IARI)	*Environmental Science - Environmental Chemistry*

*** Recognized Supervisor**

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

Facilities

Besides laboratories for regular academic activities the department has specialized laboratories that facilitate research. Some of the instruments the laboratories of the department house includes 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 Activities

No. of papers published in the year 2014-15: 30
No. of ongoing research projects: 18, Completed: 05
No. of current Ph.D. scholars: 52

Selected Publications

1. Borah, L. and Baruah, K. K., Nitrous oxide emission and mitigation from wheat agriculture: association of physiological and anatomical characteristics of wheat genotypes, *Environmental Science and Pollution Research*, DOI: 10.1007/s11356-015-5299-4, 2015.
2. Deka, J.P., Baruah, B., Singh, S., Chaudhury, R., Prakash, A., Bhattacharyya, P., Selvan, M.T. and Kumar, M., Tracing phosphorous distributions in the surficial sediments of two eastern Himalayan high altitude lakes through sequential extraction, multivariate and HYSPLIT back trajectory analyses, *Environmental Earth Sciences*, DOI 10.1007/s12665-014-3931-0., 2015.
3. Devi, U., Hoque, R. R. and Sarma, K. P., Accumulation of trace metals in soil and trees by the highway passing through an ecological heritage area, *Journal of Environmental Research and Development,* 9(3), 2015.
4. Jo, S. H., Kim, K. H., Jeon, B. H., Lee M.H., Kim Y. H., Kim, B. W., Cho, S.B., Hwang, O. H. and Bhattacharya, S. S, , Odor characterization from barns and slurry treatment facilities at a commercial swine facility in South Korea. *Atmospheric Environment,* 119, 339-347, 2015.
5. Sah, R. and Das, A. K, Drainage skeletization from flow accumulated area without the use of threshold. Accepted for publication. *Geocarto International. Taylor and Francis*., 2015.

Courses offered in M. Sc. in Environmental Science

First Semester

Course Code	Course Title	Cr.
ES 551	Fundamentals of Environmental Science	2
ES 552	Statistical Methods in Environmental Application	3
ES 553	Ecology and Ecosystem Dynamics	3
ES 554	Earth Processes and Natural Hazards	3
ES 555	Environmental Chemistry and Toxicology	3
-	Open Elective/ Elective Foundation	3

Second Semester

Course Code	Course Title	Cr.
ES 556	Solid Waste Management and Technology	3
ES 557	Climatology and Meteorology	2
ES 558	Environmental Biology	2
ES 559	Environmental Physics	2
ES 560	GIS-Remote Sensing and Application	2
ES 561	Environmental Engineering	3
-	Open Elective/ Elective Foundation	6
-	Discipline Centric Elective	2

Third Semester

Course Code	Course Title	Cr.
ES 562	Analytical Methods	3
ES 564	Agriculture and Environmental Sustainability	2
ES 565	Environmental Pollution and Management	3
ES 566	Soil Science	2
ES 567	Environmental Plant Physiology and Biochemistry	3
ES 568	Hydrogeochemical Processes	2
ES 573	Environmental Extension and Feild Survey	1
-	Open Elective/ Elective Foundation	3
-	Discipline Centric Elective	2

Fourth Semester

Course Code	Course Title	Cr.
ES 569	Energy and Environment	2
ES 563	Environmental Impact Assessment	2
-	Discipline Centric Elective	2
ES 550	Project	10

Discipline centric elective Courses

Code	Course title	CR
ES545	Human Population, Social issues	2
ES546	Environmental biotechnology	2
ES547	Agro-Forestry and Forest Man-	2
ES548	Environmental Economics	2
ES570	Environmental Laws and Policies	2
ES571	Climate Change and Its Impacts	2
ES572	Natural Resource and Biodiversi-	2
ES574	Laboratory Safety	2
ES575	Atmospheric Chemistry	2

In addition to the above courses, students are to choose a total of 12 credits of CBCT courses offered by other departments, preferably to be finished within 3rd Semester.

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. Department is already recommended to be covered under UGC-SAP (DRS-I). AICTE has supported running AICTE approved courses at the department through the scheme of AICTE NEQIP GATE qualified M.Tech students receive PG Scholarship of MHRD. One of the bright B. Tech students is considered for fellowship under GE Foundation's Scholar leader programme. Students from the department have been benefited from MHRD's schemes for North-East under ISHAN UDAY, ISHAN VIKAS.

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 and Technology
2. M. Tech. in Food Engineering and Technology
3. Ph. D.

Professors	
Charu Lata Mahanta,* Ph.D. (CFTRI)	*Rice Science and Technology, Product Development and Food Quality*
Sankar Chandra Deka,* Ph.D. (HAU)	*Food Biochemistry and Food Quality, Fermented Foods*
Associate Professors	
Manuj Kumar Hazarika,* Ph.D. (IITKgp)-HoD	*Food Process Modeling, Product Technology Development, Transport Processes in Food Engineering*
Brijesh Srivastava,* Ph.D. (IITKgp)	*Process and Food Engineering, Fruits and Vegetable Processing and Machineries, Drying and Dehydration, Unit Operations in Food Engineering*
Nandan Sit, Ph.D. (TU)	*Food Engineering, Biochemical Engineering, Oils and Fats, Food and Biotechnology*
Assistant Professors	
Poonam Mishra, Ph.D. (TU)	*Food Technology*
Laxmikant S. Badwaik, Ph.D. (TU)	*Food Engineering and Technology, Fermentation Technology, Cereals and Pulses Technology, Fruits and Vegetables Technology, Food Packaging, Food and Safety and Laws*
Dibyakanta Seth, M. Tech. (IITKgp)	*Dairy and Food Engineering, Dairy Technology, Unit Operations in Food Engineering, Emerging Trends in Food Process Engineering*

Raj Kumar Duary,* Ph.D. (NDRI)	*Isolation and Establishment of Probiotic Organism, Probiotic Food Formulation and Development, Fermentation, Human Cell Culturing*
Kshirod Kumar Dash,# Ph.D. (IITKgp)	*Food Process Modeling, Transfer process in Engineering, Optimization in Food Engineering*
Amit Baran Das, M.S. (IITKgp)	*Food Process Modeling, Optimization in Food Engineering, Product Technology Development*

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

LEGENDS: ***CFTRI****-Central Food Technological Research Institute, Mysore,* ***HAU****-Haryana Agricultural University, Hisar,* ***IITKgp****-Indian Institute of Technology, Kharagpur,* ***TU****-Tezpur University,* ***NDRI****- National Dairy Research Institute, Haryana,* ***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 Activities

No. of papers published in the year 2014-15: 50
No. of ongoing research projects: 11
No. of current Ph.D. scholars: 25

Selected Publications

1. Das, P. M., Dutta, G., Barthakur, A. and Mahanta, C. L. Tackling correlated responses during process optimization of rapeseed meal protein extraction, *Food Chemistry*, 170, 62—73, 2015.

2. Dutta, H., Mahanta, C. L., Singh, V., Das, B. B. and Rahman, N. Physical, physicochemical and nutritional character istics of Bhoja chaul, a traditional ready-to-eat dry heat parboiled rice product processed by an improvised labor atory soaking technique. *Food Chemistry* , 191(5), 152—162, 2015.

3. Khawas, P., Dash, K. K., Das, A. J. and Deka, S. C. Modeling and optimization of the process parameters in vacuum drying of culinary banana (Musa ABB) slices by application of artificial neural network and genetic algorithm. *Drying Technology*, DOI : 10.1080/07373937.2015.1060605, 2015.

4. Rafiq, A., Chowdhary, J., Hazarika, M. K. and Makroo, H. A. Temperature dependence on hydration kinetic model parameters during rehydration of parboiled rice, *Journal of Food Science and Technology*, DOI 10.1007/s13197-015-1790-7, 2015.

5. Sit, N., Deka, S. C. and Misra, S. Optimization of starch isolation from taro using combination of enzymes and comparison of properties of starches isolated by enzymatic and conventional methods. *Journal of Food Science and Technology*, 52(7), 4324—4332, 2015.

Courses offered in M. Tech. in Food Engineering and 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 519	Seminar	1
FT 601	Food Product Development	3
FT 602	Simulation and Modeling	3
-	Elective- IV	3
-	CBCT-II	3
-	CBCT-III	3

Third Semester

Course Code	Course Title	Cr.
FT 680	Project Seminar	6

Fourth Semester

Course Code	Course Title	Cr.
FT 682	Project	12

Elective Courses

Group-I

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

Group-II

Course Code	Course Title	Cr.
FT 525	Bioprocess Engineering	3
FT 526	Fermentation and Process Control	3
FT 527	Food Biotechnology	3
FT 528	Industrial Microbiology and Enzyme Technology	3
FT 529	Fermented and Non Fermented Beverages	3

Group-III

Course Code	Course Title	Cr.
FT 530	Food Process Design and Analysis	3
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

Group-IV

Course Code	Course Title	Cr.
FT 535	Specialty Foods: Nutraceuticals and Functional Foods	3
FT 536	Food Plant Hygiene and Sanitation	3
FT 537	Waste Management and Byproduct Utilization in Food Industries	3
FT 538	Industrial Safety and Hazards	3
FT 539	Food Rheology	3
FT 540	Operation Research	3

GROUP V

(Only for students from non-food technology back-ground)

Course Code	Course Title	Cr.
FT 201	Food Chemistry	4
FT 202	Basic and Food Microbiology	3
FT 205	Food Biochemistry and Nutrition	4
FT 206	Principles of Food Processing and Preservation	3

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. in Hindi
3. Ph.D.

Faculty and Areas of Interest

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

*** Recognized Supervisor**

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

Facilities

The Department has a small Departmental library.

Research Activities

No. of papers published in the year 2014-15 : 07
No. of current Ph.D. scholars: 10

Selected Publications

1. Anushabda, *Janchetana ke Vaitalik*: *Bhupen Hazarika aur Baba Nagarjun*, Alochana, 50, 118—124, July—Sept. 2013.
2. Anushabda, *Hindi Patrakarita: Rupak banam Mithak*, Vani Prakashan, New Delhi, 2014.
3. Nath, A. K., *Sandesh Rasak* (A book in Assamese), Bandhav, Guwahati, 2013.
4. Tripathi, S. K., *Shaili Vichar*: *Hindi Bhasha ka Sandarbha, Ananya,* 8, 48—53, December, 2014.
5. Tripathi, S. K., *Yugin Yatharth ka nirmal darpan*: *Bilesur bakariha*, *Samvad*, 10, 257—262, April, 2015.

Courses offered in PG Diploma in Translation (Hindi)

First Semester

Course Code	Course Title	Cr.
HN 411	प्रयोजनमूलक हिंदी, भाषा-प्रयुक्ति और अनुवाद	4
HN 412	हिंदी भाषा की संवैधानिक स्थिति और अनुवाद	4
HN 413	अनुवाद विज्ञान और उसका सिद्धांत	4
HN414	कार्यालयी हिंदी और अनुवाद	4

Second Semester

Course Code	Course Title	Cr.
HN 421	अनुवाद का व्यावहारिक पक्ष	4
HN 422	जनसंचार माध्यम और अनुवाद	4
HN 423	पारिभाषिक शब्दावली,कोश विज्ञान और अनुवाद	4
HN 424	परियोजना कार्य	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	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	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	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	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	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	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	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 laying emphasis on critical understanding of theory and practice. Students as part of their academic curriculum, regularly produce laboratory journals, audio programmes, web designs, brochures, TV news bulletins, corporate videos, documentary films and traditional communication programmes like puppet shows and street plays on a regular basis.

Programmes offered

1. M. A. in Mass Communication and Journalism
2. M. A. in Communication for Development
3. Ph. D.

Faculty and Areas of Interest

Professor	
Sunil Kanta Behera, Ph.D. (BU) Professor of Eminence	Communication Theory and Research, Gender and Media
Associate Professors	
Abhijit Bora,* Ph.D. (GU)- HoD	*Print Journalism, Community Radio, Development Communication, Analytical Journalism, Media Studies, Specialized Reporting, Science Communication*
Perumal Anbarasan, Ph.D. (JNU)	*Media Studies, Cultural and Subaltern Studies, International Communication, Film Studies*
Assistant Professors	
Joya Chakraborty,* Ph.D. (UoHyd)	*ICT for Development, Development Communication, Women and Media; Traditional Media*
Uttam Kumar Pegu,# Ph.D. (JMI)	*ICT Implications on Society, Science Communication, Film Studies, Media Analysis*
A Nagraj, Ph.D. (TU)	*Electronic Media Production, Documentary Filmmaking, Television Production and Advertising*
Anjuman Borah, M.A. (TU)	*Development Communication, Television and Traditional Media*
Perosh Jimmy Daimari, M.A. (TU)	*Film Studies, Development Communication, Photography, Television Production*
Kapou Malakar, M. A. (JMI)	*New Media, Multimedia Journalism, Political Communication, Online Journalism, Media Studies, Film Studies*

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

*LEGENDS: **BU**-Berhampur University, **GU**-Gauhati University, **JNU**-Jawaharlal Nehru University, New Delhi, **UoHyd**-University of Hyderabad, **JMI**-Jamia Millia Islamia, New Delhi, **TU**-Tezpur University, **HoD**-Head of the Department.*

Facilities

The Department has a spacious exclusive three-story building and is endowed with specialized high-end equipments 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 very good screening room with a 100-seat capacity is available for screening and discussion.

Research Activities
No. of papers published in the year 2014-15 : 10
No. of current Ph.D. scholars: 14

Selected Publications

1. Bora, A. India at 21st century: resurgent media versus freedom of expression, in *Transparency in public affairs: The role of the press* (Souvenir of the Press Council of India on National Press Day, Nov. 16), 41—43, 2014.

2. Anbarasan, P. and Ratnamala, V. Images of violence in northeast India and national press: a case study of Bodos and Bengali speaking Muslims ethnic conflict, *Contemporary Discourse*, 6(1), 5—17, 2015.

3. Pegu, U. The paradox of sustainable development: understanding the socio-cultural impact of dam-induced development in northeast India, *Hilarian Ray,* 3, 31—35, 2015.

4. Chakraborty, J., Borah, A. and Hazarika, M. From fractures to frames: conflict reporting in newspapers of Assam, *Global Media Journal*, 6(1), 2015.

5. Bora, A. Sampratik Sangbad Madhyam: Chapa Tatha Vaidyutin (Present Day Journalism : Print versus Electronic), *Gariyoshi*, XXII(12), 8—10, 2015.

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 and Public Relations	3
MC 494	Visual Communication and Photography	3
-	CBCT	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 and Ethics	3
MC 498	Broadcast Media : Radio	3
MC 499	Broadcast Media : Television	3
-	CBCT	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	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	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

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.

Courses offered in M.A. in Communication for Development

First Semester

Course Code	Course Title	Cr.
CD 400	Theories of Communication and Media	4
CD 401	Development Journalism	5
CD 402	Theories of Communication for Development	4
CD 403	Issues in Development	4
-	CBCT	3

Second Semester

Course Code	Course Title	Cr.
CD 404	Communication Research Methods	4
CD 405	Radio for Development	5
CD 406	Participatory Video Production	5
CD 407	Information and Communication Technology for Development	4
-	CBCT	3

Third Semester

Course Code	Course Title	Cr.
CD 408	Campaign Planning	5
CD 409	Folk and Community Media	5
CD 410	Message Design and Evaluation	4
CD 411	Internship	4
MC 493/ MC 494	Advertising and Public Relation/ Visual Communication and Photography	3
-	CBCT	3

Fourth Semester

Course Code	Course Title	Cr.
CD 412	Project *	12

* Students would be attached to different governmental/non-governmental development agencies to carry out a semester long communication campaign.

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 Analytic), 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 and DST-FIST grant .

Programmes offered

1. Integrated B.Sc.B.Ed. in Mathematics (Major - Mathematics)
2. Integrated M.Sc. in Mathematics
3. M.Sc. in Mathematics
4. Ph.D.

Faculty and Areas of Interest

Professors	
Munindra Borah,* Ph.D. (GU)	*Discrete Distribution, Combinational Optimization, Genetic Algorithms, Numerical Analysis*
Nayandeep Deka Baruah,* Ph.D. (TU)	*Number Theory, Ramanujan's Mathematics*
Debajit Hazarika,* Ph.D. (JMI)	*General Topology, Fuzzy Sets and Applications*
Munmun Hazarika,* Ph.D. (TU)	*Functional Analysis, Operator Theory*
Milan Nath,* Ph.D. (IITG)	*Ordinary Graph Spectra, Inverse Eigen Value Problem*
Associate Professors	
Bhim Prasad Sarmah., Ph.D. (GU)- HoD	*High Energy Astrophysics, Relativity*
Bhupen Deka,* Ph.D. (IITG) (on lien)	*Numerical Functional Analysis*
Santanu Dutta,* Ph.D. (TU)	*Statistics (Non-parametric)*
Dhiren Kumar Basnet,* Ph.D. (DU)	*Algebra*
Shuvam Sen,* Ph.D. (IITG)	*Computational Fluid Dynamics*
Assistant Professors	
Rajib Haloi,* Ph.D. (IITK)	*Abstract Differential Equations*
Bipul Kumar Sarmah, Ph.D. (TU)	*Theory of Partitions, Ramanujan's Mathematics*
Rajat Kanti Nath,* Ph.D. (NEHU)	*Theory of Finite Groups*
Debajit Kalita,* Ph.D. (IITG)	*Algebraic Graph Theory*
Deepjyoti Goswami, Ph.D. (IITB)	*Finite Element Method*
Pankaj Kumar Das, M.Sc. (DU^)	*Coding Theory*
Somnath Paul, Ph.D. (TU)-Ad-hoc	*Spectral Graph Theory*
Surya Sekhar Bose, M.Sc. (AU)-Ad-hoc	*Spectral Graph Theory*

*** Recognized Supervisor**

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

Facilities

The Department has a computer laboratory established with financial assistance from the DST and UGC. Various Mathematical softwares are available in the laboratory. The laboratory is fully networked and 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 Activities
No. of papers published in the year 2014-2015: 34
No. of ongoing research projects: 03
No. of current Ph.D. scholars: 21

Selected Publications

1. Baruah, N. D. and Sarmah, B. K. Generalized Frobenius partitions with 6 colors, *The Ramanujan Journal*, 38, 361—382, 2015.

2. Dutta, S. Local smoothing for kernel distribution function estimation. *Communications in Statistics- Simulation and Computation,* 44(4), 878—891, 2015.

3. Kalita, D. Properties of first eigenvectors and first eigenvalues of nonsingular weighted directed graphs. *Electronic Journal Linear Algebra*, 30, 227—242, 2015.

4. Nath, M. and Paul, S. On the spectra of graphs with edge-pockets, *Linear and Multilinear Algebra***,** 63, 509—522, 2015.

5. Sen, S. and Kalita, J. C. A 4OEC scheme for the biharmonic steady Navier-Stokes equations in non-rectangular domains. *Computer Physics Communication,* 196, 113—133, 2015.

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 to be offered from the following units

Course Code	Course Title	Cr.
MS 538	Theory of Partial Differential Equation	4
MS 539	Advanced Numerical Analysis	4
MS 540	Mathematical Methods in Finance	4
MS 541	Fluid Mechanics	4
MS 542	Electrodynamics	4
MS 543	Relativity	4
MS 544	Operation Research	4
MS 545	Elliptic Curves	4
MS 546	Algebraic Number Theory	4
MS 547	Numerical Linear Algebra	4
MS 548	Mathematical Logic	4
MS 549	Graph Theory	4
MS 550	Discrete Mathematics	4
MS 551	Introduction to Category Theory	4
MS 552	Operator Theory-I	4
MS 553	Number Theory-I	4
MS 554	Advanced Algebra-I	4
MS 556	Quantum Mechanics-I	4
MS 557	Mathematical Modeling-I	4
MS 558	General Theory of Relativity	4
MS 559	Magneto Hydrodynamics and Plasma	4
MS 560	Sampling Techniques-I	4
MS 561	Stochastic Processes-I	4
MS 562	Statistical Quality Control	4
MS 563	Advanced Analysis-I	4
MS 564	Multivariate Analysis-I	4
MS 565	Fuzzy Sets and Applications-I	4
MS 566	Fourier Analysis	4

Course Code	Course Title	Cr.
MS 567	Continuum Mechanics	4
MS 568	Theory of Distribution and Sobolev Spaces	4
MS 572	Operator Theory -II	4
MS 573	Number Theory-II	4
MS 574	Advanced Algebra-II	4
MS 576	Quantum Mechanics -II	4
MS 577	Mathematical Modeling-II	4
MS 578	High Energy Astrophysics	4
MS 579	Magneto Hydrodynamics and Plasma Physics-II	4
MS 580	Sampling Techniques-II	4
MS 581	Stochastic Processes -II	4
MS 582	Reliability Theory	4
MS 583	Advanced Analysis-II	4
MS 584	Multivariate Analysis-II	4
MS 585	Fuzzy Sets and Applications-II	4
MS 586	Parallel Numerical Algorithms	4
MS 587	Finite Element Method	4
MS 588	Applied Matrix Theory	4
MS 591	Computational Fluid Dynamics	4
MS 592	An Introduction to Fourier Theory	4
MS 593	Wavelets and Applications	4
MS 594	Advanced Topology-I	4
MS 595	Numerical Solutions of ODE	4
MS 596	Advanced Topology-II	4
MS 597	Numerical Solutions of PDE	4
MS 598	Algebraic Geometry	4
MS 599	Probability Theory	4

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 -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
NS 102	National Service Scheme	2
-	CBCT -III	3
-	CBCT -IV	3

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 -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 -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 -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 403	Measure Theory	3
MI 504	Mathematical Programming	3
-	CBCT-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	3
MI 411	Partial Differential Equations	4
-	CBCT -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 -X	3

Ninth Semester

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

Tenth Semester

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

+ *Course for which there is a separate practical unit assigned as Computer Laboratory*

Note: 1. CBCT -I to CBCT -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
EG 102	Communicative English-II	3
SC 102	Basic Sociology	3
ES 102	Elementary Environmental Science	3
ES 542	Laboratory Guidance and Safety	3
BM 101	Elementary Economics	3

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

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

3. A student has to choose a minimum of three courses from the list of electives offered by the Department of Mathematical Sciences. The other elective course may be chosen from the Departments under the School of Sciences and the School of Engineering.

Electives to be offered from the following courses

Course Code	Course Title	Cr.
MI 540	Mathematical Methods in Finance	4
MI 537	Stochastic Processes-I	4
MI 538	Theory of Partial Differential Equation	4
MI 539	Advanced Numerical Analysis	4
MI 541	Fluid Mechanics	4
MI 542	Electrodynamics	4
MI 543	Relativity	4
MI 544	Operation Research	4
MI 545	Elliptic Curves	4
MI 546	Algebraic Number Theory	4
MI 547	Numerical Linear Algebra	4
MI 548	Mathematical Logic	4
MI 549	Graph Theory	4
MI 550	Discrete Mathematics	4
MI 551	Introduction to Category Theory	4
MI 552	Operator Theory-I	4
MI 554	Advanced Algebra-I	4
MI 556	Quantum Mechanics-I	4
MI 557	Mathematical Modeling-I	4
MI 558	General Theory of Relativity	4
MI 560	Sampling Techniques-I	4
MI 562	Statistical Quality Control	4
MI 564	Multivariate Analysis-I	4
MI 565	Fuzzy Sets and Applications-I	4

Course Code	Course Title	Cr.
MI 566	Fourier Analysis	4
MI 567	Continuum Mechanics	4
MI 568	Theory of Distribution and Sobolev Spaces	4
MI 572	Operator Theory -II	4
MI 573	Analytic Number Theory	4
MI 574	Advanced Algebra-II	4
MI 576	Quantum Mechanics -II	4
MI 577	Mathematical Modeling-II	4
MI 580	Sampling Techniques-II	4
MI 581	Stochastic Processes -II	4
MI 582	Reliability Theory	4
MI 584	Multivariate Analysis-II	4
MI 585	Fuzzy Sets and Applications-II	4
MI 586	Parallel Numerical Algorithms	4
MI 587	Finite Element Method	4
MI 588	Applied Matrix Theory	4
MI 591	Computational Fluid Dynamics	4
MI 593	Wavelets and Applications	4
MI 594	Advanced Topology-I	4
MI 595	Numerical Solutions of ODE	4
MI 596	Advanced Topology-II	4
MI 597	Numerical Solutions of PDE	4
MI 598	Algebraic Geometry	4

Courses Offered in Integrated B. Sc-B.Ed. in Mathematics

First Semester

Course Code	Course Title	Cr.
PD 101	Physics-I	3
CD 101	Chemistry-I	4
BD 101	Biology-I	3
MD 101	Mathematics-I	3
ED 104	Communicative English	3
ED 105	Basics in Computer Application	3
ED 106	Education: An Evolutionary Perspective	3

Second Semester

Course Code	Course Title	Cr.
PD 102	Physics-II	3
CD102	Chemistry-II	4
BD102	Biology-II	3
MD 102	Mathematics-II	3
NS 106	National Service Scheme/NCC	2
ED 107	Education and Development	3
-	CBCT Elective	3

Third Semester

Course Code	Course Title	Cr.
PD 211	Quantum Physics	3
MD 213	Set theory and Mathematical Logic	3
MD 215	Classical Algebra	3
ED 202	Learner and Learning	3
ED 205	Environmental Education	3
MD211	Numerical Methods and Integrals	3
-	CBCT Elective -V	3

Fourth Semester

Course Code	Course Title	Cr.
MD 210	Elementary Abstract Algebra	3
MD 212	Introductory Statistics	3
MD 214	Linear Space and Linear Programming	
MD 216	Elementary Real Analysis	3
ED 203	Contemporary Issues in Education	3
ED 204	Assessment and Evaluation	3
PD216/ BD 224	Thermodynamics and Optics/ Ecology and Environmental Biology	3/ 3

Fifth Semester

Course Code	Course Title	Cr.
ED 301	Teaching Approaches and Learning Resources	3
ED 302	Classroom Organization and Management	3
MD 207	Coordinate Geometry	3
MD 209	Statics and Dynamics	3
MD 301	Computer Programming+	4
	CBCT Elective	3
MD 309	Computer Laboratory	2

Sixth Semester

Course Code	Course Title	Cr.
MD 307	Elementary Number Theory	4
MD 308	Theory of Ordinary Differential Equations	4
MD 312	Elementary Complex Analysis	3
ED308	Pedagogy A: Physical Science I	3
ED 307 / ED 309	Pedagogy B: Mathematics I / Biological Science I	3
ED 303	School Education in North East India	2
	CBCT Elective	3

Seventh Semester

Course Code	Course Title	Cr.
MD 208	Linear Algebra	4
MD 303	Real Analysis	4
ED 408	Pedagogy A : Physical Science II	3
ED 407/ ED 409	Pedagogy B: Mathematics II/ Pedagogy B: Biological Science II	3
ED 404	Initial School Experience / School Internship I	3
	CBCT Elective	3

Eight Semester

Course Code	Course Title	Cr.
MD 410	Measure Theory	3
ED 405	School Internship II (16 weeks)	12
	CBCT Elective	3

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 degree 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 conducting cutting-edge research. Both the B.Tech and M. Tech (Mechanical Engineering) programmes are approved by AICTE

Programmes offered

1. B. Tech in Mechanical Engineering
2. M. Tech in Mechanical Engineering
3. Ph.D.

Associate Professors	
Dilip Datta,* Ph.D.(IITK)	*Design, Optimization and Operational Research*
Tapan Kumar Gogoi,* Ph.D. (TU)- HoD	*Thermal, Energy and Environment Engineering*
Partha Pratim Dutta, Ph.D. (TU)	*Energy and Thermal Engineering*
Assistant Professors	
Paragmoni Kalita, M. Tech. (BHU)	*Computational Fluid Dynamics , High speed flows*
Polash Pratim Dutta, ME (BIT)	*CAD, Laser Forming, Mechatronics, Soft Computing*
Sushen Kirtania, M. Tech (IITG)	*Composite Materials, Carbon Nanotubes, Carbon Nanotubes Based Composites, Finite Element Method, Fracture Mechanics*
Prabin Haloi, ME (GU)	*Fluid and Thermal Engineering*
Sanjib Banerjee,* Ph. D. (IITG)	*Materials and Manufacturing*
Monoj Bardalai, ME(GU)	*Thermal Engineering, Renewal Energy Conversion*
Satadru Kashyap, M.Sc. (Engg.) (UA)	*Manufacturing and Materials Science*
Zahnupriya Kalita, ME (AIT)	*Mechatronics*
Rakesh Bhadra, ME (BESUS)	*Manufacturing, Production Engineering*
Barnali Chowdhury, ME (AEC)	*Thermal Engineering*

***Recognized Supervisor**

*LEGENDS: **IITK**-Indian Institute of Technology Kanpur, **TU**-Tezpur University, **BHU**-Banaras Hindu University, Uttar Pradesh, **BIT**- Birla Institute of Technology, Jharkhand, **IITG**-Indian Institute of Technology Guwahati, **GU**-Gauhati University, **UA**-University of Alberta, Canada, **AIT**- Asian Institute of Technology, Bangkok, **BESUS**-Bengal Engineering and Science University , West Bengal, **AEC**- Assam Engineering College, Guwahati, **IITM**-Indian Institute of Technology Madras, **HoD**- Head of the Department.*

Facilities

CAD Laboratory

This laboratory is equipped with computers having server based installed software such as ANSYS -FLUENT combo, FLUENT 6.3 teaching version and Pro-E Wildfire 3.0 version. At present the laboratory has two servers and 25 computers for use of both students 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, apparatus for influence of inertia upon velocity and acceleration, and gyroscope apparatus.

Strength of Materials Laboratory
This laboratory is equipped with Rockwell hardness tester, Brinell hardness tester, Vickers hardness tester, impact testing machine, 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 laboratory is equipped with metal melting furnace, metallographic cutting machine, metallographic sample mounting machine, metallographic automatic polishing machine, injection molding machine, optical microscope, muffle furnace, and hot air oven.

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 of different mechanisms, like 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, micromanometer, 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 Activities
No. of paper published in the year 2014-2015: 28
No. of ongoing research projects: 04
No. of current Ph.D. scholars: 08

Selected Publications

1. Gogoi, T. K., Estimation of operating parameters of a water-LiBr vapour absorption refrigeration system through inverse analysis, *ASMEJ of Energy Resources Technology,* 138(2), 022002, 2016.

2. Kirtania S. and Chakraborty, D. Failure analysis of carbon nanotube/epoxy composites having a broken carbon nanotube, *Journal of Reinforced Plastics and Composites*, 34(13), 1639—1647, 2015.

3. Pathak, H., Das, S., Doley, R., and Kashyap, S. Optimization of cutting parameters for AISI H13 Tool steel by Taguchi method and artificial neural network, *International Journal of Materials Forming and Machining Processes,* 2(2), 47—65, 2015.

4. Steiner, M. T. A., Datta, D., Neto, P. J. S., Scarpin, C. T. and Figueeira, J R. Multi-objective optimization in partitioning the healthcare system of Parana State in Brazil, *Science Omega - The International Journal of Management Science,* 52, 53—64, 2015.

5. Talukdar, K., Gogoi, T. K., Energy analysis of a combined vapour power cycle and boiler fuel gas driven double effect water-LiBr absorption refrigeration system, *Energy Conversion & Management*, 110, 468—477, 2016.

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	3/4
-	Elective-II	3/4

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	3/4
	Elective -IV	3/4

Third and Fourth Semester

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

Elective Courses

Course Code	Course Title	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 and Shells	3
ME 508	Continuum Mechanics	3
ME 521	Robotics	3
ME 522	Quality Engineering	3
ME 523	Non-Conventional Energy	3
ME 524	Operations Management	3
ME 525	Tribology	3
ME 526	Modern Control System	3
ME 527	CAD-CAM	3
ME 528	Energy Conservation and Waste Heat Recovery	3
ME 529	Artificial Intelligence in Engineering	3
ME 531	Project Management	3
ME 532	Power Plant Engineering	3
ME 533	Energy Management	3

Course Code	Course Title	Cr.
ME 534	Mechatronics	3
ME 535	Advanced Engineering Thermodynamics	3
ME 537	Applied Computational Methods	4
ME 538	Computer Aided Design in Engineering	4
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
ME 601	Automobile Engineering	3
ME 602	Computational Fluid Dynamics and Heat Transfer	3
ME 603	Hybrid Electric Vehicles	3
ME 622	Communication Skills for Scientists and Engineers	3
ME 701	Advance Heat Transfer	3

***** The department is also planning to offer a new specialization in Thermo-fluids Engineering under the M.Tech. Mechanical Engineering programme from Autumn, 2016 subject to the approval of the Academic council.

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 establishment 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 area of modern biotechnology. The Department has close linkage with the industry and academic institute of the country.

The current research activities in 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.

The Department of MBBT is supported by UGC-SAP (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.

Programmes offered

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

Professors	
Bolin Kumar Konwar,* Ph.D. (IC), On-lien as V.C. of NU	*Petroleum Biotechnology, Plant Biotechnology, Genetic Engineering and Metagenomics, Bioenergy*
Alak Kumar Buragohain,* Ph.D. (IC) On-lien as V.C. of DU	*Drug Discovery from Medicinal Plants, Diatom Nanotechnology, Plant Biotechnology, Evolutionary Genomics, Petroleum Biotechnology*
Ashis Kumar Mukherjee,* Ph.D. (BU)	*Snake Venom Biochemistry and Microbial Biotechnology*
Sashi Baruah,* Ph.D. (PGIMER)	*Innate Immunity and Immunogenetics ((Heterogeneity and Evolution of Immune Responses)*
Associate Professors	
Suvendra Kumar Ray,* Ph. D. (CCMB)- HoD	*Molecular Plant -Microbe Interactions, Molecular Evolution*
Manabendra Mandal,* Ph.D. (IGIB)	*Probiotics and Nutrition, Microbial Biofilm, Bioenergy*
Anand Ramteke,* Ph.D. (JNU)	*Cancer Genetics and Chemoprevention*
Robin Doley,* Ph.D. (TU)	*Anti-haemostatic Proteins from Snake Venom and Hematophagus Insect*
Assistant Professors	
Tapas Medhi,* Ph.D. (IITKgp)	*Enzymology and Bioprocess Engineering*
Eshan Kalita,* Ph.D. (NIPGR-GU)	*Nanobiotechnology and Plant Functional Biology*
Surya Prakash G. Ponnam,*Ph.D. (LVPEI-UoHyd)	*Molecular Genetics and Disease Biology of Various Human Diseases/ Disorders*
Anupam Nath Jha,* Ph.D. (IISc)	*Computational Biophysics, Bioinformatics*
Rupak Mukhopadhya,* Ph.D. (IACS-JU)	*Cellular and Molecular Biology (Sub Areas: Inflammation, Cardiovascular Disease), Microbial Biotechnology*
Sougata Saha,* Ph.D. (IISc)	*Cellular and Molecular Biology (Protein Arginylation and its Role in Cellular Function, Obesity)*
Nima D. Namsa,$ Ph.D. (IISc)	*Molecular Biology of Rotavirus*
Suman Dasgupta,* Ph.D. (VB)	*Insulin Resistance and Type 2 Diabetes*
Mattaparthi V. Satish Kumar,* Ph.D. (IITG)	*Computational Biotechnology and Bioinformatics*
Jyoti Prasad Saikia, Ph. D (TU)- Ad-hoc	*Plant Biotechnology*

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

*LEGENDS: **IC**-Imperial College, London, **NU**-Nagaland University, **DU**-Dibrugarh University, **BU**-Burdwan University, West Bengal, **PGIMER**-Post Graduate Institute of Medical Education and Research, Chandigarh, **CCMB**-Centre for Cellular and Molecular Biology, Hyderabad, **IGIB-**Institute of Genomics and Integrated Biology, Delhi, **JNU**-Jawaharlal Nehru University, New Delhi, **TU**-Tezpur University, **IITKgp**-Indian Institute of Technology Kharagpur, **NIPGR**-National Institute of Plant Genome Research, New Delhi, **GU**-Gauhati University, **LVPEI-**L.V. Prasad Eye Institute, Hyderabad, **UoHyd-**University of Hyderabad, **IISc**-Indian Institute of Science, Bangalore , **IACS**-Indian Association for the Cultivation of Science, Kolkata, **JU**-Jadavpur University, Kolkata, **VB**-Visva Bharati, Santiniketan, **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 these individual; faculty research laboratories are well equipped to carry out advance research.

Research Activities

No. of papers published in the year 2014-2015 : 139
No. of ongoing research projects: 22
No. of current Ph.D. scholars: 55

Selected Publications

1. Deka, B., Mandal, M., Kumar, M. V. S., Doley, R., Naglot, A., Baruah, I., Veer, V. and Namsa, N. D. Green synthesis, characterization and antibacterial activity of silver nanoparticles using aqueous leaf extract of Artemisia annua L, *International Journal of Nanomedicine*, in press, 2015.

2. Dutta, M. and Kumar, M. V. S. Inhibition of amyloid fibrils formation as well as disassembly of amyloid fibrils in Alzheimer's disease using the poly-ion, single stranded nucleotide sequence: an in silico study, *Journal of Proteins and Proteomics* (Special issue on Biophysics in India), 6(1), 2015.

3. Dutta, A., Saikia, N., Phukan, J., Baruah, M. N. and Baruah, S. Negative regulation of natural killer cell in tumour tissue and peripheral blood of oral squamous cell carcinoma, *Cytokine*, doi:10.1016/j.cyto.2015.09.006, 2015.

4. Majumdar, S., Dutta, S., Das, T., Chattopadhyay, P. and Mukherjee, A. K . Antiplatelet and antithrombotic activity of a fibrin(ogen)olytic protease from Bacillus cereus strain FF01, *International Journal of Biological Macromolecules,* 79, 477—489, 2015.

5. Sharma, M., Krishnamurthy, I. J., Kini, R. M. and Doley, R. Unveiling the complexities of *Daboia russelii* venom, a medically important snake of India, by tandem mass spectrometry, *Toxicon,* doi:10.1016/j.toxicon.2015.06.027, 2015.

Courses offered in M. Sc. in Molecular Biology and 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	Laboratory-I: Biochemistry and Analytical Techniques	3
BT 408	Laboratory-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 413	Genetic Engineering	4
BT 414	Genetics	3
BT 415	Genomics and Proteomics	3
BT 416	Seminar / Journal Club / Assignment	1
BT 417	Laboratory-III: Immunology	2
BT 418	Laboratory-IV: Microbiology	2
BT 419	Laboratory-V: Genetic Engineering	2

Third Semester

Course Code	Course Title	Cr.
BT 420	Bioprocess Engineering and Technology	3
BT 421	Immunotechnology	2
BT 422	Molecular Virology	2
BT 423	IPR and Biosafety Genetics	3
BT 424	Laboratory-VI: Bioprocess Engineering and Technology	3
BT 425	Project Proposal Presentation	1
-	Elective- I	3
-	Elective- II	3

Fourth Semester

Course Code	Course Title	Cr.
BT 426	Bioentrepreneurship	3
BT 427	Project Work	12

Electives Courses offered by the department

Course Code	Course Title	Cr.
BT 429	Microbial Technology	3
BT 433	Animal Biotechnology	3
BT 435	Plant Biotechnology	3

Course Code	Course Title	Cr.
BT 437	Environmental Biotechnology	3
BT 439	Nanobiotechnology	3

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

First Semester

Course Code	Course Title	Cr.
BI 101	Biology-I	3
PI 101	Physics-I	3
CI 101	Chemistry-I	4
MI 101	Mathematics-I	3
CS 101	Introduction to Scientific Computing	3
EG 101	Communicative English	3

Second Semester

Course Code	Course Title	Cr.
BI 102	Biology-II	3
PI 102	Physics-II	4
CI 102	Chemistry-II	3
MI 102	Mathematics-II	3
ES 102	Elementary Environmental Science	3
SC 102/ EG 102	Basic Sociology/Communicative English-II	3
NS 102	NSS	2

Third Semester

Course Code	Course Title	Cr.
BI 223	Cell Biology	3
BI 231	Biochemistry - I	3
BI 227	Laboratory for Biochemistry and Cell Biology	2
BI 229	Animal Physiology	3
MI 211	Numerical Methods and Integrals	3
CI 201	Chemistry - III	3
-	CBCT	3

Fourth Semester

Course Code	Course Title	Cr.
MI 212	Introductory Statistics	3
BI 222	Microbiology	3
BI 226	Basic in Biocomputing	3
BI 228	Laboratory in Microbiology	2
BI 230	Plant Physiology	3
CI 202	Chemistry - IV	3
-	CBCT	3

Fifth Semester

Course Code	Course Title	Cr.
BI 321	Molecular Biology	3
BI 323	Developmental Biology	3
BI 325	Analytical Techniques	3
BI 327	Bioprogramming and Biostatistics	3
BI 335	Biochemistry - II	2
BI 331	Laboratory on Enzymology	2
BI 333	Laboratory on Molecular Biology	2

Sixth Semester

Course Code	Course Title	Cr.
BI 322	Molecular Genetics	3
BI 324	Genetic Engineering	3
BI 326	Immunology	3
BI 328	Biological Database Management System	2
BI 330	Computational Biology	3
BI 338	Seminar - I	1
BI 334	Laboratory on Immunology	2
BI 336	Laboratory 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	Bioinformatics Software and Algorithms	2
BI 427/429/431/433	Elective - I : Animal Biotechnology / Microbial Biotechnology / Plant Biotechnology / Nano Biotechnology	3
BI 435	Fermentation and Bioprocess Engineering	2
BI 437	Laboratory on Cell and Tissue Culture	2
BI 439	Laboratory on Bioprocess Engineering	2
	CBCT	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/ Toxinology/Pharamcogenomics/ Evolutionary Genomics	3
BI 434	Virology	2
BI 442	Seminar - II	2
BI 438	Laboratory on Applied Bioinformatics	3
BI 440	Laboratory on Gnomics and Proteomics	3
	CBCT	3

Ninth Semester **3**

Course Code	Course Title	Cr.
BI 521	Project -I	16
BI 525	Seminar - III	1
-	CBCT	3

Tenth Semester

Course Code	Course Title	Cr.
BI 522	Project -II	**16**
BI 526	Seminar - IV (Project Outcome)	2

For more information one can 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 of Physics is a UGC-SAP, DST-FIST and ISRO supported Department.

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. in Physics (Major-Physics)
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	
Rajpal S. Sirohi, Ph.D. (IITD), Bharat Ratna Lokapriya Gopinath Bordoloi Chair Professor	*Optics, Optical Instrumentation, Laser Application, Optical Metrology*
Ashok Kumar,* Ph.D. (IITK)	*Condensed Matter Physics, Solid State Ionics*
Jayanta Kumar Sarma,* Ph.D. (GU)	*Theoretical High Energy Physics, Particle Physics*
Nidhi Saxena Bhattacharyya,* Ph.D. (DU^)	*Microwave Devices, Antennas and EMI Materials*
Nilakshi Das,* Ph.D. (GU)	*Plasma Physics*
Associate Professors	
Gazi Ameen Ahmed,* Ph.D. (GU)- HoD	*Laser Physics, Optoelectronics*
Dambarudhar Mohanta,* Ph.D. (TU)	*Condensed Matter Physics, Nanoscience*
Pritam Deb,* Ph.D. (JU)	*Nanoscience and Nano Technology, Physics of Materials*
Pralay Kumar Karmakar,* Ph.D. (GU)	*Plasma Physics, Astrophysics, Nonlinear Dynamics*
Mrinal Kumar Das,* Ph.D. (GU)	*Theoretical High Energy Physics, Nuclear Physics*
Pabitra Nath,* Ph.D. (GU)	*Photonics*
Assistant Professors	
Ng K. Francis, Ph.D. (GU)	*Particle Physics Phenomenology and Particle Cosmology*
Rajib Biswas,# Ph.D. (DU)	*Fiber Optic Instrumentation, PCFs; Geophysical Instrumentation*
Amit Pathak,* Ph.D. (GU^)	*Molecular Astrophysics of Polycyclic Aromatic Hydrocarbons (PAHs), Interstellar Dust (Cosmic Dust), UV Astronomy*
Rupjyoti Gogoi,* Ph.D. (GU)	*Astrophysics*
Shyamal Kumar Das,* Ph.D. (IISc)	*Material Science*
Ritupan Sarmah, Ph.D. (IISc) -Ad-hoc	*Computational Material Science*
DST Inspire Faculty	
Arup Jyoti Choudhury, Ph.D. (GU)	*Low Temperature Plasma Processing*

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

LEGENDS: ***IITD****-Indian Institute of Technology Delhi,* ***OU-****Oxford University,* ***IITK****-Indian Institute of Technology Kanpur,* ***GU****-Gauhati University,* ***DU^-****Delhi University,* ***TU****-Tezpur University,* ***JU-****Jadavpur University, West Bengal,* ***DU-****Dibrugarh University,* ***GU^****-Gorakhpur University, Uttar Pradesh,* ***IISc*** *-Indian Institute of Science, Bangalore,* ***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 a 25 MW pulsed, NdYAG laser, high vacuum coating unit, X-band Microwave Bench, Electrochemical Workstation, LCR HiTester Meter, AFM, PPMS, SEM, XRD, Double Distilled water treatment plant, hot air oven, material developing facilities, semiconductor characterization set-up, UV-VIS spectrophotometer, Millipore water purification system, LB film deposition unit, FT-IR, spectrophotometer, vector network analyzer, spin wave instability characterization system, antenna parameter measurement facility, hydraulic press, CNC Milling Machine and other systems. 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 other departments within the University.

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

Research Activities

No. of papers published in the year 2014-2015 : 90
No. of ongoing research projects: 18
No. of current Ph.D. scholars: 46

Selected Publications

1. Boruah, R., Mohanta, D., Choudhury, A. and Ahmed, G. A. Inverse surface plasmon resonance based effective hydrogen sensing using nanoscale palladium films, *Optical Materials*, 39, 273—277, 2015.

2. Borah, D. and Dasgupta, A. Galactic center gamma ray excess in a radiative neutrino mass model, *Physics Letters B*, 741, 103—110, 2015.

3. Gogoi, M. and Deb, P. Magneto-fluorescent hybrid of dye and SPION with ordered and radially distributed porous structures, *Applied Surface Science*, 298, 130—136, 2014.

4. Sarma, R., Tripathi, S., Misra, R., Dewangan, G., Pathak, A. and Sarma, J. K. Relationship between X-ray spectral index and X-ray Eddington ratio for Mrk 335 and Ark 364, *Monthly Notices of the Royal Astronomical Society*, 448 (2), 1541—1550, 2015.

5. Upadhyay, J., Kumar, A., Gogoi, B. and Buragohain, A. K. Antibacterial and hemolysis activity of polypyrrole nanotubes decorated with silver nanoparticles by an in-situ reduction process, *Material Science and Engineering C*, 54 (1), 8—13, 2015.

Courses Offered in M. Sc. in Physics

First Semester

Course Code	Course Title	Cr.
PH 400	Physics and Computational Laboratory	4
PH 408	Electromagnetic Theory	3
PH 416	Condensed Matter Physics and Material Science-I	3
PH 417	Advanced Classical Mechanics	3
PH 418	Quantum Mechanics-I	3
PH 498	Physics Laboratory-I	4
-	CBCT Elective VII	3

Second Semester

Course Code	Course Title	Cr.
PH 411	Statistical Physics	3
PH 412	Digital Electronics and Microprocessor	4
PH 415	Nuclear Theory and particle Physics	3
PH 419	Advanced Mathematical Physics	3
PH 455	Seminar	2
PH 499	Physics Laboratory-II	4
-	CBCT Elective-VIII	3

Third Semester

Course Code	Course Title	Cr.
PH 551	Advanced Electomagnetic Theory	3
PH 500	Project -I	5
-	Elective -I	3
-	Elective- II	3
-	CBCT Elective -IX	3

Fourth Semester

Course Code	Course Title	Cr.
PH 553	Atomic and Molecular Spectroscopy	3
PH 599	Project - II	10
-	Elective- III	3
-	Elective - IV	3

Electives Courses offered by the Department in Semester III and Semester IV

Course Code	Course Title	Cr.
PH 510	Fiber Optics and Optoelectronics	3
PH 557	Photonic	3
PH 514	Superconductivity and Critical Phenomena	3
PH 517	Physics of Solid State Devices	3
PH 519	Quantum Field Theory	3
PH 555	Particle Physics-I	3
PH 556	Particle Physics-II	3
PI 517	Microwave systems and Antenna Propagation	3
PH 522	Communication Systems	3
PH 554	Soft Condensed Matter Physics	3
PH 524	Digital Signal Processing	3
PH 525	Microprocessors and Digital Signal Processing Based Systems	3
PH 532	Quantum Electrodynamics	3
PH 533	General Theory of Relativity	3

Course Code	Course Title	Cr.
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
PI 542	Fundamentals of Plasma Physics	3
PI 543	Plasma Generation and Diagnostics	3
PH 558	Quantum Electronics	3
PI 559	Nanophotonics	3
PI 546	Fourier Optics and Holography	3
PH 560	Optical Metrology	3

Courses Offered in M. Sc. in Nanoscience and Technology

First Semester

Course Code	Course Title	Cr.
NS 415	Mathematical Methods	3
NS 416	Electrodynamics	3
NS 418	Quantum Mechanics - I	3
NS 408	Condensed Matter Physics	3
NS 404	Basic Polymer Science	3
NS 400	Laboratory - I	5
-	CBCT	3

Second Semester

Course Code	Course Title	Cr.
NS 402	Electronics	3
NS 410	Nanostructures	3
NS 421	Statistical Physics	3
NS 453	Atomic and Molecular Spectroscopy	3
NS 455	Seminar	2
NS 498	Laboratory - II	5
-	CBCT	3

Third Semester

Course Code	Course Title	Cr.
NS 500	Project Work - I	**6**
NS 501	Surface Science	**3**
NS 553	Biophysics and Nanobiotechnology	**3**
NS 554	Computational and Modeling Techniques	**4**
NS 552	Quantum Mechanics - II	**3**
-	CBCT	3

Fourth Semester

Course Code	Course Title	Cr.
NS 559	Nanophotonics	3
NS 558	Nanomagnetism	3
NS 599	Project Work - II	12

Courses Offered in Integrated M. Sc. in Physics

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
NS 102	National Service Scheme	2
-	CBCT -III	3
-	CBCT -IV	3

Third Semester

Course Code	Course Title	Cr.
PI 211	Quantum Physics	3
PI 207	Physics Laboratory -I	4
PI 217	Mathematical Physics -I	3
PI 203	Classical Mechanics	3
PI 218	Modern Physics	3
MI 211	Numerical Methods and Integrals	3
-	CBCT Elective -V	3

Fourth Semester

Course Code	Course Title	Cr.
PI 205	Electromagnetism	3
PI 214	Electronics	3
PI 216	Thermodynamics and Optics	3
PI 208	Physics Laboratory-III	4
PI 325	Thermodynamics and Statistical Physics	3
MI 212	Introductory Statistics	3
-	CBCT -VI	3

Fifth Semester

Course Code	Course Title	Cr.
PI 315	Mathematical Physics -II	3
PI 202	Introductory Quantum Mechanics	3
PI 204	Atomic and Nuclear Physics	3
PI 316	Introduction to Photonics	3
PI 303	Physical and Geometrical Optics	3
PI 399	Physics Laboratory- V	4

Sixth Semester

Course Code	Course Title	Cr.
PI 307	Basic Material Science	3
PI 317	Basic Computation Techniques	3
PI 308	Laser Physics	3
PI 311	Wave and Acoustics	3
PI 300	Project	4

Seventh Semester

Course Code	Course Title	Cr.
PI 403	Electrodynamics	3
PI 413	Advanced Classical Mechanics	3
PI 414	Quantum Mechanics	3
PI 416	Condensed Mater Physics & Material Science - I	3
PI 499	Physics and Computational	4
PI 400	Physics Laboratory - VII	4
-	CBCT -VII	3

Eighth Semester

Course Code	Course Title	Cr.
PI 302	Digital Electronics and Microprocessor	3
PI 310	Statistical Physics	3
PI 402	Nuclear and particle Physics	3
PI 417	Advanced mathematical Physics	3
PI 498	Physics Laboratory-VIII	4
PI 450	Seminar	2
-	CBCT Elective-VIII	3

Ninth Semester

Course Code	Course Title	Cr.
PI 599	Project-I	6
PI 551	Advanced Electrodynamics	3
PI 552	Quantum Mechanics II	3
-	Elective -I	3
-	Elective- II	3
-	CBCT Elective -IX	3

Tenth Semester

Course Code	Course Title	Cr.
PI 500	Project-II	10
PI 553	Atomic and Molecular Spectroscopy	3
-	Elective- III	3
-	Elective- IV	3

Elective Courses offered by the Department in Semester IX and X

Course Code	Course Title	Cr.
PI 501	Quantum Field Theory	3
PI 502	Quantum Electrodynamics	3
PI 555	Particle Physics - I	3
PI 556	Particle Physics - II	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 557	Photonics	3
PI 554	Soft Condensed Matter Physics	3

Course Code	Course Title	Cr.
PI 513	Physics of Thin Films	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 546	Fourier Optics and Holography	3
PI 558	Quantum Electronics	3
PI 559	Nanophotonics	3
PI 560	Optical Metrology	3
PI 412	Plasma and Astrophysics	3

Courses Offered in Integrated B. Sc-B.Ed. in Physics

First Semester

Course Code	Course Title	Cr.
PD 101	Physics-I	3
CD 101	Chemistry-I	4
BD 101	Biology-I	3
MD 101	Mathematics-I	3
ED 104	Communicative English	3
ED 105	Basics in Computer Application	3
ED 106	Education: An Evolutionary Perspective	3

Second Semester

Course Code	Course Title	Cr.
PD 102	Physics-II	3
CD102	Chemistry-II	4
BD102	Biology-II	3
MD 102	Mathematics-II	3
NS 106	National Service Scheme/NCC	2
ED 107	Education and Development	3
-	CBCT Elective	3

Third Semester

Course Code	Course Title	Cr.
PD 211	Quantum Physics	3
PD297	Laboratory -I	4
PD 301	Mathematical Physics -I	3
PD 203	Classical Mechanics	3
ED 202	Learner and Learning	3
ED 205	Environmental Education	3
MD211	Numerical Methods and Integrals	3
-	CBCT Elective -V	3

Fourth Semester

Course Code	Course Title	Cr.
PD 205	Electromagnetism	3
PD214	Electronics	3
PD216	Thermodynamics and Optics	3
PD 311	Waves and Acoustics	3
PD 298	Laboratory-II	4
ED 203	Contemporary Issues in Education	3
ED 204	Assessment and Evaluation	3
MD 212	Introductory Statistics	3

Fifth Semester

Course Code	Course Title	Cr.
ED 301	Teaching Approaches and Learning Resources	3
ED 302	Classroom Organization and Management	3
PD 202	Introductory Quantum Mechanics	3
PD 303	Physical and Geometrical Optics	3
PI 398	Laboratory-III	4
	CBCT Elective III	3

Sixth Semester

Course Code	Course Title	Cr.
PD 307	Basic Material Science	3
PD308	Laser Physics	3
PD 305	Thermodynamics and Statistical Physics	3
PD 314	Measurement Physics	3
ED 303	School Education in North East India	2
ED308	Pedagogy A: Physical Science I	3
ED 307/ ED 309	Pedagogy B: Mathematics I / Pedagogy B: Biological Science I	3
	CBCT Elective	3

Courses Offered in Integrated B. Sc.B.Ed. in Physics

Seventh Semester

Course Code	Course Title	Cr.
PD 315	Mathematical Physics II	3
PD 204	Atomic and Nuclear Physics	3
ED 408	Pedagogy A : Physical Science II	3
ED 407/ ED 409	Pedagogy B: Mathematics II/ Pedagogy B: Biological Science II	3
ED 404	Initial School Experiences/ School Internship I	3
PD 495	Laboratory IV	3
	CBCT Elective	3

Eight Semester

Course Code	Course Title	Cr.
PD 497	Laboratory V	4
ED 405	School Internship II (16 weeks)	12
	CBCT Elective	3

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 was started in 2014 with the following objectives:

To create a just and equal society which ensures freedom from all forms of oppression and exploitation.

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.

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.

To help students develop knowledge, skills, attitudes and values appropriate to the practices of social work profession.

To enable students to develop critical thinking and the ability to apply theory to field experience.

To evolve an interdisciplinary perspective to enhance understanding of social problems and development issues.

Programme offered

1. M.A. in Social Work

Faculty and Areas of Interest

Professors	
Sunil Kumar Dutta,* Ph.D. (VB)- HoD	*Folklore Studies, Assamese Language and Culture*
Mohammed Abdul Kalam, Ph.D. (UM)	*Minorities, Ethnicity, Migrations*
Assistant Professors	
Veda Yumnam, M.Phil. (JNU)	*Health Systems Research, Epidemiology of HIV / AIDS and Social Determinants of Health*
Rajesh Kalarivayil, M.Phil. (JNU)	*Biomedical Governance, Innovation Studies, Science and Technology in Rural Development*
Apurba Saha, Ph.D. (NIMHANS)	*Social Work and Mental Health, Psychosocial Care in Disaster Management, Street Children and Application of Social Work Methods*

* **Recognized Supervisor**

LEGENDS: ***VB****-Visva Bharati, Santiniketan,* ***UM****-University of Madras ,* ***JNU****-Jawaharlal Nehru University, New Delhi,* ***NIMHANS****-National Institute of Mental Health and Neurosciences, Bangalore,* ***HoD****-Head of the Department.*

Research Activities

No. of papers published in the year 2014-15 : 04

Selected Publications

1. Dasgupta, R. and Yumnam, V. Social and behavioural sciences in health, in *Text book of Preventive and Social Medicine*, O.P. Ghai and P. Gupta (eds.), Cbs Publishers and Distributors, 2015.

2. Deuri, S. P. and Saha, A. Adolescent mental health and suicide, in *C.A.R.E: Child and Adolescent's Responsive Education: Manual for Parents, Teachers, and Caregivers*, M. Hazarika and B. M. Suresh (eds.), Pathan Hazarika Charitable Trust, 90—102, 2014.

3. Yumnam, V. and Dasgupta, R. Conceptual issues of conflict as a social determinants of health: explorations from Manipur, in *The Art of the Possible: Understanding and Acting on the Social Determinants of Health in India,* D. Nambiar, A. Mularidharan and P. Ganeshan (eds.), Orient Blackswan, 2015.

Courses offered in M. A in Social Work

First Semester

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

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

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
SW 450	Fieldwork	8
-	CBCT	3
-	Elective -III	2
-	Elective -IV	2

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 and IV: Any two to be chosen from the following courses

Course Code	Course Title	Cr.
SW 441	Gender, Women and Development	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
SW 549	Dissertation	2
SW 550	Fieldwork	8
-	CBCT	3
-	Elective- A/B/C	2+2
-	Elective- D	2

Fourth Semester

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

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 of Tezpur University was established in 2006 with a Masters programme. Subsequently, it launched a Ph.D. programme in 2008. The Department is dedicated toward nurturing competent and socially sensitive graduates through rigorous teaching and research 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, etc. 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 class-room but are also encouraged to participate in short field visits during vacations as part of their mandatory research projects. The Department also makes an effort 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. The Department is currently supported by UGC-SAP (DRS-I).

Programmes offered

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

Faculty and Areas of Interest

Professors	
Mohammed Abdul Kalam, Ph.D. (UM)	*Migration, Identity Politics, Ethnicity, Environment and Society*
Chandan Kumar Sharma,* Ph.D. (DU^)	*Social Development, Culture and Media Studies, Environmental Sociology Nationalism*
Associate Professors	
Rabin Deka,* Ph.D. (DU)	*Sociological Theories, Sociology of Movement, Agrarian Sociology*
Kedilezo Kikhi,* Ph.D. (NEHU)-HoD	*Research Methodology, Gender and Society, Sociology of Northeast India, Tribal Studies*
Assistant Professors	
Amiya Kumar Das, 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*
Nirmali Goswami,* Ph.D. (IITK)	*Sociology of Education, Identity of Politics, Multiculturalism*
Sarmistha Das, M.Phil. (JNU)	*Gender Studies, Sociology of North East India*
Subhadeepta Ray, M.Phil. (DU^)	*Sociology of Science and Sociology of India*
A. S. Shimreiwung, Ph.D. (JNU)	*Sociology of Religion, Environmental Sociology, Sociology of Music*

*** Recognized Supervisor**

*LEGENDS: **UM**-University of Madras, **DU^**-Delhi University, **DU**-Dibrugarh University, **NEHU**-North Eastern Hill University, Shillong, **TU**-Tezpur University, **UK**-University of Kerala, **IITK**-Indian Institute of Technology Kanpur, **JNU**-Jawaharlal Nehru University, New Delhi, **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 Activities

No. of papers published in the year 2014-15: Journal-10, Book Chapters-14
No. of ongoing research projects: 04
No. of current Ph.D. scholars: 22

Selected Publications

1. Das, A. K. Developing inter-sectoral synergies: re-defining state NGO relations in the field of education, *Jamia Journal of Education,* 1(2), 12—21, 2014.

2. Das, A. K., Nigam and Padhi, R. Undermining Adivasi interests, *Economic and Political Weekly,* 50(1), 22—26, 2015.

3. Goswami, N. Costs, security and discipline: gendering the debate on school choice in India, *Indian Journal of Gender and Society,* 22(2), 159—169, 2015.

4. Kikhi, K. and Choudhury, N. Understanding schizophrenic behaviour from a cultural perspective, *Man and Society,* XII, 83—99, 2015.

5. Kikhi, K. and Ghosh, J. Identity and tribal land alienation in northeast India: A sociological viewpoint on changing land relations with reference to Nagaland, *International Journal of Northeast Indian Cultures,* II(2), 24—32, 2015.

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	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	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	3

Fourth Semester

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

Elective courses offered by the Department

Course Code	Course Title	Cr.
SC 431	Fieldwork Practicum	3
SC 432	Social Statistics	3
SC 433	Population and Society	3
SC 550	Gender and Society	3
SC 551	Industrial Sociology	3
SC 552	Sociology of Health and Illness	3

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
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

SECTION SIX

Vocational Programme (B. Voc.)

BACHELOR OF VOCATION (B.VOC.)

The University Grants commission (UGC) has launched a scheme on Skills Development based Higher Education as a part of University education, leading to the three years Bachelor of Vocation (B.Voc.) degree. As per the guidelines of the National Skills Qualification Framework (NSQF), the programme facilitates multiple exit points viz., (i) Diploma (after the completion of first two semester), (ii) Advanced Diploma (after the completion of first four semester), and (iii) B. Voc. Degree (after the completion of all six semesters).

The curriculum for the programme is a suitable mix of general education and skill development components. The general education component adheres to the normal University standards and constitutes 40% of the total curriculum, whereas skill development component constitutes 60%. The focus of the skill development component is to equip students with appropriate knowledge, practice and attitude, so as to make them ready as per the skill requirements for industrial jobs.

Considering the need of the region and the reported National Occupational Standards (NOS) by the respective Sector Skill Councils and with the approval of the UGC, Tezpur University has introduced B Voc. programme in following two vocational trades:
(a) B. Voc. in Renewable Energy Management
(b) B. Voc. in Food Processing

These programmes are being offered w.e.f. the academic year 2015-16 with the board objectives of providing judicious mix of skills relating to selected trades and appropriate content of general education, enhancing employability of the graduates and to meet industry requirements by integration of NSQF within conventional education.

Facilities: Students enrolled in B. Voc. Programme will be eligible to avail various facilities of the University. However, hostel accommodation will be provided based on availability.

Examination and Assessment
The assessment will be done as per prevailing standards and procedures of the University.

Faculty for B.Voc. programme
Faculty will be drawn from the existing Departments of the University in addition to some appointed on contractual basis as well as guest faculty as per provision of UGC.

Courses offered in B. Voc. in Renewable Energy Management

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

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.

Courses offered in B. Voc. in Food Processing

Year-I:: NSQF Level-V

First Semester (L_5_Sem_I)

Course Code	Course Title	Cr.
GC 111	English -I	4
GC 112	Mathematics -I	4
GC 113	Chemistry -I	4
VC 111	Engineering Drawing	3
VC 112/ VC 113/ VC 114	Introductory Microbiology/ Industrial Microbiology/ Environmental Microbiology	3
VF 112#	Workshop Practice (FP) - I	3
VF 113#	Floor Practice-I	4
VF 114#	Food Products Technology -I	5

Second Semester (L_5_Sem_II)

Course Code	Course Title	Cr.
GC 121	Introductory Computing	5
GC 122	Physics – I	4
VC 121	Basic Electrical Systems	3
VC 122/ VC 123/ VC 124	Biomolecules/ Enzyme Technology / Microbial Technology	3
	CBCT 1#	3
VF 122#	Floor Practice-II	3
VF 123#	Agro Processing Operations	4
VF 124#	Agro Food Processing Technology	5

Year-II:: NSQF Level-VI

Third Semester (L_6_Sem_I)

Course Code	Course Title	Cr.
GC 211	Communication skill - I	4
GC 212	Sociology	4
GC 213	Mathematics - II	4
VC 211	Applied Mechanics	3
VF 212#	Floor Practice-III	3
VF 213#	Food Processing Methods	4
VF 214#	Food Products Technology-II	5
VF 215/ VF 216/ VF 217/ VF 218	Introductory Food Engineering/ Basic Thermodynamics/ Electro Technology/ Instrumentation and Process Control in Food Processing	3

Fourth Semester (L_6_Sem_2)

Course Code	Course Title	Cr.
GC 221	Chemistry-II	5
GC 222	Physics - II	4
	CBCT 2	3
VF 221	Food Processing Plant Utilities	3
VF 222#	Floor Practice-IV	3
VF 223#	Food Processing Machines	4
VF 224#	Food Products Technology-III	5
VF 225/ VF 226/ VF 227/ VF 228/ VF 229	Food Packaging, Material Handling and Storage/ Cereal, Pulses and Oilseed Process Technology/ Milling Technology/ Advanced Food Processing Methods/ Fermented and Non Fermented Beverages	3

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.
GC 311	Communication skill - II	4
GC 312	Environmental Studies	4
GC 313	Mathematics-III	4
GC 314	Computational Laboratory	5
GC 315	Economics & Industrial Statistics	4
VF 311#	Food Safety Standard and Regulations	3
VF 312#	Floor Practice-V	3
VF 313/ VF 314/ VF 315/ VF 316	Extrusion Technology/ Refrigeration systems/ Instrumental methods of Food Analysis/ Drying Systems	3

Sixth Semester (L_7_Sem_II)

Course Code	Course Title	Cr.
GC 321	Technical Communication and Reporting	3
VF 322#	Mini project/Industrial Training	5
VF 323#	Case study and project	22

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

For more information one can visit the respective departmental websites http://www.tezu.ernet.in/dner and http://www.tezu.ernet.in/dfpt

SECTION SEVEN

ANNEXURES

ANNEXURE I

IMPORTANT DATES

1	**Online portal remains open for B. Tech. Programme**	**February 29 to 6th May, 2016**
2	Online application remains open for other Programmes	February 29 to April 25, 2016
3	Release of the list of eligible candidates and online availability of admit cards	May 2, 2016
4	Entrance Examination Schedule	June 3 to June 5, 2016
5	Announcement of results except Ph.D. programme	June 20, 2016
6	Personal Interview for Ph. D programme	June 15 and 16, 2016
7	Announcement of results for Ph. D. programme	June 29, 2016
8	Commencement of New Session	July 25, 2016

ANNEXURE II

SCHEDULE OF ENTRANCE EXAMINATIONS

June 3, 2016 (10 AM to 12 Noon)	June 3, 2016 (2 PM to 4 PM)
• Integrated M.A. in English / Integrated B.A.B.Ed. in English • Integrated M.Sc. in Mathematics/Integrated B.Sc.B.Ed. in Mathematics • M.A. in Social Work • P.G. Diploma in Translation (Hindi) • 2 year B.Ed.	• M.Tech. in Bioelectronics • Master of Tourism and Travel Management (MTTM) • Integrated M.Sc. in Physics/Integrated B.Sc.B.Ed. in Physics • M.Tech. in Mechanical Engineering • M.A. in Cultural Studies • M.Sc. in Chemistry • M.Sc. in Mathematics
June 4, 2016 (10 AM to 12 Noon)	**June 4, 2016 (2 PM to 4 PM)**
• Integrated M.Sc. in Chemistry/Integrated B.Sc.B.Ed. in Chemistry • M.A. in Sociology • M.Sc. in Environmental Science • M.Sc. in Nanoscience and Technology • M.A. in Linguistics and Endangered Language • P.G. Diploma in Child Rights and Governance • Ph.D. in all Science and Engineering Departments	• M.Tech. in Electronics Design and Technology • M.A. in Mass Communication and Journalism • M.Tech. in Polymer Science and Technology • Integrated M.Sc. in Bioscience and Bioinformatics • Certificate in Chinese • M.A. in Hindi • Ph.D. in Business Administration and all Humanities and Social Sciences Departments
June 5, 2016 (10 AM to 12 Noon)	**June 5, 2016 (2 PM to 4 PM)**
• M.Tech. in Food Engineering and Technology • M.A. in Linguistics and Language Technology • Master of Computer Application (MCA) • M.Tech. in Energy Technology • P.G. Diploma in Women's Studies • B.Voc. in (Renewable Energy Management/Food Processing) • M.A. in Communication for Development	• M.Tech. in Information Technology • M.Sc. in Physics • M.A. in English • M.Sc. in Molecular Biology and Biotechnology (for NE domicile) • M.A. in Education • Integrated M. Com

ANNEXURE III

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.	32203.00	23903.00	23903.00	23903.00	23903.00	23903.00	23903.00	23903.00	-	-	6500.00
Certificate in Chinese	16603.00	8803.00	-	-	-	-	-	-	-	-	6500.00
Integrated M.A. Intgd. M.Com. / Intgd. B.A.B.Ed	18303.00	10003.00	10003.00	10003.00	10003.00	10003.00	10003.00	10003.00	10003.00	10003.00	6500.00
Integrated M.Sc./ B.Sc.B.Ed / B. Voc.	21203.00	12403.00	12403.00	12403.00	12403.00	12403.00	12403.00	12403.00	12403.00	12403.00	7000.00
M.A	18303.00	10003.00	10003.00	10003.00	-	-	-	-	-	-	6500.00
M.Tech.	28803.00	20503.00	20503.00	20503.00					-	-	6500.00
MCA	23803.00	15503.00	15503.00	15503.00	15503.00	15503.00	-	-	-	-	6500.00
M.A. in MCJ	28803.00	19503.00	19503.00	19503.00	-	-	-	-	-	-	6500.00
M. Sc.	19003.00	10703.00	10703.00	10703.00	-	-	-	-	-	-	6500.00
PGD in Translation (Hindi)	16803.00	9003.00	-	-	-	-	-	-	-	-	6500.00
Master of Tourism & Travel Management	22803.00	14503.00	14503.00	14503.00	-	-	-	-	-	-	6500.00
PGD in Women's Studies	22803.00	14503.00	-	-	-	-	-	-	-	-	6500.00
PGD in Child Rights and Gov-ernance	22803.00	14503.00	-	-	-	-	-	-	-	-	6500.00
Two Year B.Ed.	(To be declared soon)										

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

1. **B. Tech. in Food Engineering and Technology**
2. **Integrated M. Sc. / Integrated B.Sc. B.Ed. in Chemistry**
3. **Integrated M. Sc. Bioscience and Bioinformatics**
4. **M. Tech. in Food Engineering and Technology**
5. **M. Tech. in Energy Technology**
6. **M. Tech. in Polymer Science and Technology**
7. **M. Sc. in Chemistry**
8. **M. Sc. in Molecular Biology and Biotechnology**
9. **M. Sc. in Nanoscience and Technology**
10. **M. Sc. in Environmental Science**

ANNEXURE IV

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.	82503.00	73603.00	73603.00	73603.00	73603.00	73603.00	73603.00	73603.00	-	-	6500.00
Certificate in Chinese	26753.00	18353.00	-	-	-	-	-	-	-	-	6500.00
Integrated M.A. Intgd. M.Com./ Intgd. B.A. B.Ed	32753.00	23853.00	23853.00	23853.00	23853.00	23853.00	23853.00	23853.00	23853.00	23853.00	6500.00
Integrated M.Sc./ B.Sc.B.Ed/ B.Voc	46753.00	37353.00	37353.00	37353.00	37353.00	37353.00	37353.00	37353.00	37353.00	37353.00	7000.00
M. Tech.	39253.00	30353.00	30353.00	30353.00					-	-	6500.00
M.A	32753.00	23853.00	23853.00	23853.00	-	-	-	-	-	-	6500.00
MCA	39253.00	30353.00	30353.00	30353.00	30353.00	30353.00	-	-	-	-	6500.00
M. A. in MCJ	59003.00	49103.00	49103.00	49103.00	-	-	-	-	-	-	6500.00
M. Sc.	35253.00	26353.00	26353.00	26353.00	-	-	-	-	-	-	6500.00
Master of Tourism & Travel Management	37753.00	28853.00	28853.00	28853.00							6500.00
PGD in Women's Studies	37753.00	28853.00	-	-	-	-	-	-	-	-	6500.00
PGD in Child Rights and Gov-ernance	37753.00	28853.00	-	-	-	-	-	-	-	-	6500.00

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

1. **B. Tech. in Food Engineering and Technology**
2. **Integrated M. Sc. / Integrated B.Sc. B.Ed. in Chemistry**
3. **Integrated M. Sc. Bioscience and Bioinformatics**
4. **M. Tech. in Food Engineering and Technology**
5. **M. Tech. in Energy Technology**
6. **M. Tech. in Polymer Science and Technology**
7. **M. Sc. in Chemistry**
8. **M. Sc. in Molecular Biology and Biotechnology**
9. **M. Sc. in Nanoscience and Technology**
10. **M. Sc. in Environmental Science**

ANNEXURE V

FEE STRUCTURE FOR PH.D PROGRAMME

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. 2nd 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. Sc., 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 VI

Prescribed Format of OBC(NCL) 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……..……..
in the……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 in Column 3 of the Schedules 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) The term ordinarily used here will have the same meaning as in Section 20 of Representation of the People Act. 1950.
(b) The authorities competent to issue Caste Certificates are indicated below:
(i) District Magistrate/Additional Magistrate/Collector/Deputy Commissioner/Additional Deputy Commissioner/ Deputy Collector/1stClass Stipendiary Magistrate/Sub Divisional Magistrate/Taluka Magistrate/Executive Magistrate/Extra Assistant Commissioner (not below the rank of 1stClass Stipendiary Magistrate)
(ii) Chief Presidency Magistrate/Additional Chief Presidency Magistrate/Presidency Magistrate.
(iii) Revenue Officer not below the rank of Tehsil darand
(iv) Sub- Divisional Officer of the area where the candidate and/or his family resides.

ANNEXURE VII

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 VIII

Prescribed Format of Sponsorship / No Objection Certificate

(*Format for Sponsorship / No Objection Certificate*)

(The letter should be typed on the Official Letter-Head of the Sponsoring Organization / Employer / Principal Investigator and signed by the Head of the Institution / Principal Investigator)

To

The Controller of Examinations
Tezpur University

Sub: Sponsorship / No objection Certification of Mr./Ms. _____
For Ph.D. /M. Tech. programme at Tezpur University.

Dear Sir / Madam,

Mr./Ms. _____ has been working in this organization/ Project as _____ since _____

This organization has no objection to his / her being admitted to the Ph.D. / M. Tech. programme at Tezpur University from the session starting from _____ as a part time / full time candidate.

Mr./Ms. _____ is hereby sponsored for carrying out the Ph.D. / M. Tech. Programme (only for sponsored candidate).

The employee will be relieved from his/her duties in the organization to join in the Ph.D./ M. Tech. Programme (not applicable to project fellow).

Date: Signature_____

Place: Name_____

Designation_____

Seal of the Sponsoring authority / employer

1. Verified by : Signature …….. Date……..

Name:…….. Designation……..

2. Recommended / Not Recommended

Signature: ……

Name: ……

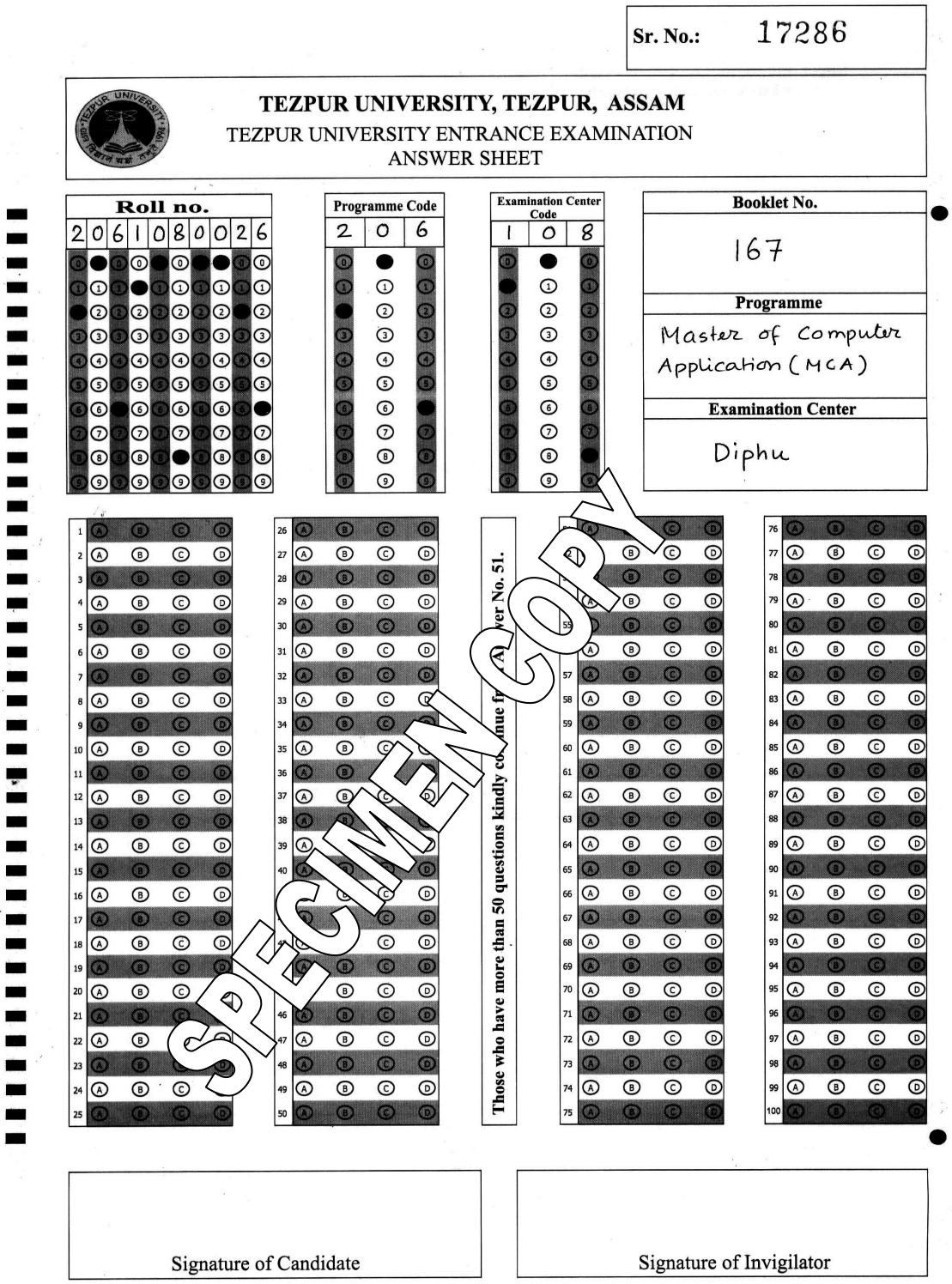
Chairperson, Selection Committee

Head, Department of ……..

Date……..

ANNEXURE IX

OMR ANSWER SHEET AND INSTRUCTIONS



Sr. No.: 17286

TEZPUR UNIVERSITY, TEZPUR, ASSAM

TEZPUR UNIVERSITY ENTRANCE EXAMINATION

ANSWER SHEET

Roll no.	Programme Code	Examination Center Code	Booklet No.
2 0 6 1 0 8 0 0 2 6	2 0 6	1 0 8	167

Programme

Master of Computer Application (MCA)

Examination Center

Diphu

Those who have more than 50 questions kindly co[illegible]nue fr[illegible]A[illegible]ver No. 51.

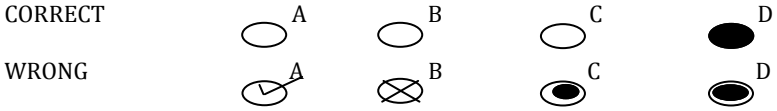
SPECIMEN COPY

Signature of Candidate

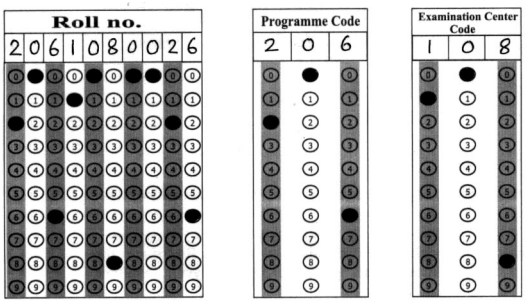
Signature of Invigilator

INSTRUCTION FOR USING THE OMR 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 given example of correct way of making entries).*
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. Choose 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.



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



ANNEXURE X

CENTRE CODES

Centre	Code	Centre	Code	Centre	Code
Agartala	101	Goalpara	109	Lucknow	117
Barpeta Road	102	Guwahati	110	Mumbai	118
Bengaluru	103	Hyderabad	111	North Lakhimpur	119
Bhubaneswar	104	Imphal	112	Patna	120
Chennai	105	Itanagar	113	Shillong	121
Delhi	106	Jorhat	114	Silchar	122
Dibrugarh	107	Kokrajhar	115	Siliguri	123
Diphu	108	Kolkata	116	Tezpur	124

ANNEXURE XI

PROGRAMME CODES

Master of Tourism and Travel Management (MTTM)	201	M.A. in Mass Communication and Journalism	221
Integrated M.Com.	202	M.A. in Communication for Development	222
M.Sc. in Chemistry	203	M.Sc. in Mathematics	223
Integrated M.Sc. in Chemistry/ Integrated B.Sc.B.Ed. in Chemistry	204	Integrated M.Sc. in Mathematics/ Integrated B.Sc.B.Ed. in Mathematics.	224
Integrated M.Sc. in Chemistry	502	Integrated M.Sc. in Mathematics	240
Integrated B.Sc.B.Ed. in Chemistry	503	Integrated B.Sc.B.Ed. in Mathematics.	241
M. Tech. in Polymer Science and Technology	205	M.Tech. in Mechanical Engineering	225
Master of Computer Applications (MCA)	206	M.Sc. in Molecular Biology and Biotechnology	226
M.Tech. in Information Technology	207	Integrated M.Sc. in Bioscience and Bioinformatics	227
M.A. in Cultural Studies	208	M.Sc. in Physics	228
M.Tech. in Electronics Design and Technology	209	M.Sc. in Nanoscience and Technology	229
M.Tech. in Bioelectronics	210	Integrated M.Sc. in Physics/Integrated B.Sc.B.Ed. in Physics	230
M.Tech. in Energy	211	Integrated M.Sc. in Physics	242
M.A. in English	212	Integrated B.Sc.B.Ed. in Physics	243
M.A. in Linguistics and Endangered Language	213	M.A. in Social Work	231
M. A. in Linguistics and Language Technology	214	M.A. in Sociology	232
Integrated M.A. in English/ Integrated B.A.B.Ed. in English	215	B. Voc. in Renewable Energy Management	233
Integrated M.A. in English	504	B. Voc. in Food Processing	234
Integrated B.A.B.Ed. in English	239	M. A. in Education	235
Certificate in Chinese	216	P.G. Diploma in Women's Studies	236
M.Sc. in Environmental Science	217	P.G. Diploma in Child Rights and Governance	237
M.Tech. in Food Engineering and Technology	218	Two year B.Ed.	238
M.A. in Hindi	219	B.Tech	250
P.G. Diploma in Translation (Hindi)	220		

PROGRAMME CODES FOR Ph.D. PROGRAMMES

Ph.D. in Business Administration	301	Ph.D. in Environmental Science	310
Ph.D. in Civil Engineering	302	Ph.D. in Food Processing Technology	311
Ph.D. in Chemical Sciences	303	Ph.D. in Mathematical Sciences	314
Ph.D. in Computer Science and Engineering	304	Ph.D. in Mechanical Engineering	315
Ph.D. in Cultural Studies	305	Ph.D. in Molecular Biology and Biotechnology	316
Ph.D. in Electronics and Communication Engineering	307	Ph.D. in Physics	317
Ph.D. in Energy	308	Ph.D. in Sociology	319
Ph.D. in English (ELT/Linguistics/ Literature)	309		

ANNEXURE XII
CONTACT DETAILS

All enquiries about academic programmes and requisite qualification should be directed to the office of the Department concerned.

Department/Office	Office number (03712)	Mobile number * (HoDs)	e-mail
Business Administration	275000	94350-15074	hod_ba@tezu.ernet.in
Centre for Inclusive Development	273252	99544-49475	rkdoley@tezu.ernet.in
Chemical Sciences	275050	99571-84354	hod_chem@tezu.ernet.in
Civil Engineering	275950	94354-09732	hod_civil@tezu.ernet.in
Commerce	273290	94350-81446	hod_com@tezu.ernet.in
Computer Science and Engineering	275100	94350-84468	hod_cse@tezu.ernet.in
Cultural Studies	275150	99544-49460	hod_cul@tezu.ernet.in
Chandraprabha Saikiani Centre for Women's Studies	273136	98542-64780	mgs@tezu.ernet.in
Education	275650	94353-55351	hod_edu@tezu.ernet.in
Electronics and Communication Engineering	275250	94353-81270	hod_ece@tezu.ernet.in
Energy	275300	99571-84356	hod_ene@tezu.ernet.in
English and Foreign Languages	275200	94350-82112	hod_efl@tezu.ernet.in
Environmental Science	275600	94354-90582	hod_env@tezu.ernet.in
Food Engineering and Technology	275700	94357-00993	hod_fet@tezu.ernet.in
Hindi	275750	94353-84799	hod_hin@tezu.ernet.in
Mass Communication and Journalism	275450	98640-72390	hod_mcj@tezu.ernet.in
Mathematical Sciences	275500	99571-91527	hod_ms@tezu.ernet.in
Mechanical Engineering	275850	94354-71300	hod_mech@tezu.ernet.in
Molecular Biology and Biotechnology	275400	99544-72151	hod_mbbt@tezu.ernet.in
Physics	275550	94350-14377	hod_phy@tezu.ernet.in
Social Work	275830	94351-85424	hod_sw@tezu.ernet.in
Sociology	275800	99544-49471	hod_soc@tezu.ernet.in

Mobile Numbers should be used during office hours and only in case of emergency.