TEZPUR UNIVERSITY

PROSPECTUS

Autumn 2018

Tezpur University
Napaam, Sonitpur
Assam, INDIA 784028
www.tezu.ernet.in

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SECTION- I

General Information about the University

GENERAL INFORMATION ABOUT THE UNIVERSITY

1.1 : Introduction

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 serene and green University Campus of about 262 acres provides the best of the ambience including modern infrastructure conducive for learning and dedicated research. The academic programmes offered in the University have a distinct focus on science, technology, management, humanities, and social sciences, reflecting the objective of the University. At present, the University offers a number of Programmes on Under-Graduate Degree/Diploma/Certificate, Integrated Programmes, Post-Graduate Degree/Diploma and Doctor of Philosophy Degree in various Disciplines. The University offers Add-on courses on Yoga and Violin too.

During the last twenty four 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 with DG backup and a rich library having connectivity to several digital libraries. While students' accommodation is provided in 15 well-designed hostels (including transit hostels), sufficient number of residential quarters is available for the accommodation of teaching and non-teaching staff. Other basic amenities like central water supply, campus security, guest house, canteen, gymnasium, outdoor and indoor sports facilities, post office, banks with ATMs, schools, swimming pool etc., are also available to cater to the needs of the University community.

Being a Central University, it is privileged to receive funds from the Ministry of Human Resource Development, Government of India, through the University Grants Commission. Faculty members of different academic Departments have been able to receive a large number of research grants amounting to crores of rupees from different funding agencies/organizations. The University promotes industry-academy alliance. The existence of prestigious industry sponsored projects in the University bear testimony to this.

1.2: Awards/Accolades

The University, though established in the year 1994, and is celebrating its Silver Jubilee year, has succeeded in achieving a number of prestigious accolades and awards. The National Assessment and Accreditation Council (NAAC), an autonomous Institution of UGC, accredited the University with 'A' Grade for the next five years. The University was accorded the *Visitor's Best University Award* for the year 2016 by the President of India. The University was also ranked 30th among India's top 100 Universities in an assessment conducted by the Ministry of Human Resource Development (MHRD), Govt. of India, through the National Institutional Ranking Framework (NIRF) in 2017. Further, the University is placed in the top 601-800 Universities in the World University Rankings conducted by the Times Higher Education (THE) in 2017. The QS (Quacquarelli Symonds) BRICS University Rankings 2018 which feature 300 top Universities from

Brazil, Russia, India, China and South Africa (BRICS) placed Tezpur University in 171-180th rank. Tezpur University (TU) secures 100th rank in Times Higher Education (THE) Asia University Rankings 2018.

1.3: Facilities and Services

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

Central Library

Central Library is the focal point of all user community of Tezpur University. The Library caters to the educational and research needs of the academic community and its resources are consulted by scholars from all over the country. Central Library has been started functioning since 1994. At present, the library holds about 81736+ books, 10,000+ journals (print + online),online databases, CDs and 7848 back volumes of journals.

Library is a member of e-ShodhSindhu Consortium, DeLCON consortium and DELNET. Library users can access book database, journal database, e-journals, institutional repository, electronic thesis & dissertations and other e-resources from any terminal within the University campus. Library provides reading facility for 365 days in the year.

The library is continuously striving at to adopt the best practices in all endeavours of its activities. The library has fully computerized with the help Libsys software which is an integrated multi-user library management system that supports all in-house operations of the Library.

Computing Facilities

The University started using computers from its very inception both in its academic and administrative activities. The University has state-of-the-art central computing facilities, in addition to Departmental computer laboratories. Apart from a large number of PCs and servers, the University also has a High Performance Computing Centre (PARAM-TEZ) consisting of 12 TF HPC system with 50TB storage capacity and 3 C-DAC's indigenously built PARAM Shavak having computing capacity of around 3 TF each. All computing facilities are in a high speed campus LAN, which is connected to the Internet through 1-Gbps National Knowledge Network (NKN) optical fiber link.

Sophisticated Analytical Instrumentation Centre (SAIC)

The University established the Sophisticated Analytical Instrumentation Centre (SAIC) to cater to the need of various sophisticated equipment for advance 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 in different disciplines.

Centre for Innovation Incubation and Entrepreneurship (CIIE)

The Centre for Innovation Incubation and Entrepreneurship (CIIE) promotes specialized knowledge in the field of entrepreneurship development, innovation and creative ideas. The Centre strives to identify and motivate talented youths to implement new ideas for the fulfillment of the larger societal objectives. The CIIE also maintains an exhibition hall, called TUNOVATION that showcases various innovations made by students

and faculty members as part of their projects/ research works. It also displays collection of cultural antiques of the North East Region including musical instruments, masks and terracotta.

Health Services

The University has a Health Centre to provide health care services to students, faculty members, staff and their families with its own medical and paramedical staff. As of now the Health Centre has over 5000 beneficiaries including the people working at the University construction sites. It offers OPD services. One Medical Officer is always available for 24 hours on emergency duty. The cases requiring hospitalization are referred to the referral hospitals at Tezpur. Ambulance service is available round the clock. A stock of common medicines including lifesaving drugs are maintained and supplied free of cost. Routine laboratory investigations are also done free of cost.

Advanced equipment, such as Auto analyser (fully automatic), Hormone Analyser (Mini-Vidas), Ultrasound scanning, ECG and X-ray, required for laboratory investigations are made available at the Health Centre for the benefit of the University community. A set of appliances for person with disability are kept separately.

The University has engaged Specialists of different disciplines (Pediatrics, Obstetrics and Gynecology), who visit the Health Centre on different days of the week on regular basis for the benefit of the University community. Psychiatrist from LGBRIMH also visits the University regularly for offering counseling on stress related problems. One Sonologist visits the Health Centre once a week for ultrasound scanning. One Physiotherapist visits twice a week for physiotherapy of differently abled students. Besides, annual health checkup for employees, fogging in the campus, pulse polio immunization camps and blood donation camps are organized in the campus as per the directive of the University/Government.

All the students of the University are provided mediclaim coverage for their hospitalized expenditure. A nominal fee for payment of the premium is charged at the time of admission. The mediclaim policy for the students will be effective from the last week of August although the admission process begins quite early.

Student Accommodation

The University provides separate accommodation for men and women students and research scholars, having more than 3700 capacity. The University also has a married research scholar's hostel with capacity of accommodating more than 30 married research scholars. However hostel seats will be allotted on merit basis as per availability.

Scholarships

Students of Tezpur University can avail various scholarships offered by Govt. Organizations/ Agencies, such as:

1. Institutional fellowship for meritorious Ph.D. students.
2. UGC Merit Scholarship for SC/ST students pursuing PG level professional courses.
3. PG Indira Gandhi Scholarship for single Girl child.
4. UGC Merit scholarship for University rank holders.
5. Ishan Uday scholarship for the students (from NE States) of UG courses.
6. Inspire Scholarship.

7. Post Matric Scholarship for SC,ST and OBC students under different schemes of the Govt.
8. Merit cum-Means Based scholarship for professional and Technical courses (from Ministry of Minority Affairs).
9. Post Matric Scholarship from the Director of Welfare of Tea and Ex-tea garden.
10. AICTE scholarship for the GATE qualified students of M. Tech.
11. DBT scholarship.
12. NEC scholarship from Director of Technical Education.
13. Post Matric scholarship for students belonging to Minority communities.
14. Scholarship for differently abled students from National Handicapped Finance and Development Corporation and many more.

Students admitted on the basis of GATE score to the M Tech courses in (i) Bioelectronics, (ii) Electronics Design and Technology, (iii) Energy Technology, (iv) Food Engineering and Technology, (v) Information Technology, (vi) Mechanical Engineering, (vii) Polymer Science and Technology and (viii) Civil Engineering (subject to AICTE approval), are eligible to avail the AICTE's PG Scholarship for GATE Score holders directly from the AICTE as per norms. As per the records of recent past, there is a waiting time for the release of the first installment of the Scholarship, due to the time taken for official procedures which is beyond the control of the University.

Educational Loan

National Backward Classes Finance and Development Corporation (NBCFDC), a Government of India Undertaking under the Ministry of Social Justice and Empowerment, provides financial assistance at concessional rates to meritorious students of Backward Classes who have got admission on merit under non-payment seats in the colleges/Institutes. The educational loan will cover admission fee, annual fee, hostel charges, stationery, study material, laptop, computer, insurance, etc. Details are available at www. mhrd.gov.in

Culture & Sports

The University provides opportunities for students to excel in various cultural and sports activities. The University has basketball, badminton, volleyball and tennis courts; cricket and football grounds with flood light facilities. The University has a well-equipped multi gymnasium and training facilities for Archery. The University also promotes students to participate in various zonal, national and international levels cultural, literary and sports competitions organized by Association of Indian Universities (AIU), New Delhi.

Tezpur University Student Council (TUSC)

The University has a vibrant student council for the welfare of the students. The members of the councils are elected annually by students through secret ballots.

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 pool of resources for the student community in coordination with the well placed alumni.

Academic Calendar

The University adheres to a well-planned calendar specifying the schedule of academic activities. All events including examinations are held according to that 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 2018 is available in the University webpage.

1.4: Training and Placement Cell

Helping and guiding 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 of the University. They are also made aware of the corporate social responsibilities that serve catalyst to holistic growth.

The graduated 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 organizations that have recruited graduates of the University in the recent past include:

Private Sector Organizations – Aircel, Accenture, AGC Networks, Airtel (Bharti Telecom), American Embassy (New Delhi), Aricent, Asia Carbon Limited, Asian Paints, Axis Bank, Azim Premji Foundation, Berger Paints, Broadcom Corporation, Café Coffee Day, Calcom Cement, Catalyst Management Services, Channelply, Channel Look-East, Chembioteek Life Science, CG foods, Cipla Ltd., CNN-IBN, Colgate-Palmolive, Dabur India, Delphi, Diamond Fabcare (New Delhi), Disha (New Delhi), DSCL, Dyna Roof, ETV-Ramoji Film City, Genpact, GE Health Care, GLAXO-Smithline, Godrej and Boyce Manuf. Co. Ltd., Hindustan Coca-cola Ltd, Hindustan Lever Ltd., Housing Dev. Finance Co. (HDFC), Huawei Technologies, IBM, ICI Paints, ICICI Bank, Indian Express, Infosys, Intel, ITC Ltd., Jindal Steel and Power Ltd., Jungle Travels India, Jenson and Nicholson, Kotak Life, Mahindra Finance, LG Soft, L&T Infotech, Look East Channel, Nagaland Fruit and Veg. Prod. Unit, NDTV, Nestle India Ltd., NE Chronicle, NE TV, Newslive, Nokia, OCWEN, Oracle, Pantaloons, Perkin Elmer (India) Pvt Ltd., Philips, PRADAN, Press Trust of India, Q-Tech Nano Systems, Reliance, Reverie Language Technologies, RIMS, Samsung, SBI Life, SeSTA, Shalimar Paints, Shriram Transport Finance Company Ltd., Siemens Technology, Software AG, Sony India, SRD Nutrients (Mangaldoi), Star Cement, Sunrise Biscuits (Britannia), Symphony, Syntel, Tata Consultancy Service, TATA-ELEXI, TCI Tech Mahindra, The Shillong Times, Unisys Global Services, Vodafone, Wipro, WSP, XL Dynamics, Yes Bank, Zaloni Technologies, etc.

Public Sector Units – Allahabad Bank, Bank of Maharastra, Bharat Sansar Nigam Ltd. (BSNL), Bongaigaon Refineries and Petrochemicals, Brahmaputra Cracker and Polymer Ltd., Centre for Science and Environment (Delhi), DRDO, Export-Import Bank of India, Food Corporation of India, Food Safety and Standards Authority, Gas Authority of India Limited (GAIL), ICAR, Indian Army, Indian Oil Corporation Ltd. (IOCL), Industrial Development Bank of India, Intelligence Bureau, ISRO, NRHM, Govt. of Assam, National Thermal Power Corporation , Numaligarh Refinery Limited (NRL), Oil India Limited (OIL), ONGC, Powergrid Corporation of India, Reserve Bank of India, State Bank of India, United Bank of India, etc.

Institutions of Higher Learning – Assam Don Bosco University, Assam Engineering College, Assam University, Banaras Hindu University, Jadavpur University, Bareilly Engineering College, Bielefeld University (Germany), Central Institute of Post-Harvest Engg. and Tech., Dibrugarh Polytechnic, Dibrugarh University, Edinburgh University England, Epitome College (Diphu), Galgotia Institute of Technology (Noida), Gauhati University, Girijananda Choudhury Institute of M&T, Hyderabad University, IISC Bangalore, IIT Delhi, IIT Guwahati, IIT Kharagpur, IMPRS (Halle, Germany), Indian Academy of Science (Bangalore), Institute of Genomics and Integrative Biology, J.B. College (Jorhat), JNU (New Delhi), Jorhat Engineering College, Konkuk University (Korea), M.S University of Baroda, National Institute of Cholera and Enteric Diseases, National Centre for Genome Research, NCL (Pune), NIT Silchar, North Eastern Hill University (Shillong), Royal Group of Institutions, Sikkim Manipal Institute of Technology, Silchar Polytechnic, Sognag University (Korea), Sona College of Technology (Salem), St. Anthony's College (Shillong), University College of Cork (Ireland), Rajiv Gandhi University, University of Pune, etc.

1.5: List of Academic Programmes

UG Degree/Integrated/Diploma/Certificate Programmes

Sl. No.	Programme	Department/Centre	School
1	B.Tech§. in Civil Engineering	Civil Engineering	Engineering
2	B.Tech#§. in Computer Science and Engineering	Computer Science and Engineering	
3	B.Tech. in Electrical Engineering	Electrical Engineering	
4	B.Tech#§. in Electronics and Communication Engineering	Electronics and Communication Engineering	
5	B.Tech#. in Food Engineering and Technology	Food Engineering and Technology	
6	B.Tech#§. in Mechanical Engineering	Mechanical Engineering	
7	B.Ed.	Education	Humanities and Social Sciences

8	Certificate in Chinese	English and Foreign Languages	Humanities and Social Sciences
9	Integrated B.A.B.Ed. (English major)	English and Foreign Languages	
10	Integrated M.A. in English		
11	Integrated M.Com.	Commerce	Management Sciences
12	Integrated B. Sc. B.Ed. (Chemistry major)	Chemical Sciences	Sciences
13	Integrated M.Sc. in Chemistry		
14	Integrated B.Sc.B.Ed. (Mathematics major)	Mathematical Sciences	
15	Integrated M.Sc. in Mathematics		
16	Integrated M.Sc. in Bioscience and Bioinformatics	Molecular Biology and Biotechnology	
17	Integrated B.Sc. B.Ed. (Physics major)	Physics	
18	Integrated M.Sc. in Physics		

NBA accredited as Tier -I Programme §AICTE Approved

PG Degree/Diploma Programmes

Sl. No.	Programme	Department /Centre	School
19	Master of Computer Application (M.C.A.)	Computer Science and Engineering	Engineering
20	M.Tech§. in Information Technology		
21	M. Tech. in Civil Engineering	Civil Engineering	
22	M.Tech§. in Bioelectronics	Electronics and Communication Engineering	
23	M.Tech§. in Electronics Design and Technology		
24	M. Tech§. in Energy Technology	Energy	
25	M.Tech§. in Food Engineering and Technology	Food Engineering and Technology	
26	M.Tech§. in Mechanical Engineering	Mechanical Engineering	
27	M.A. in Cultural Studies	Cultural Studies	

28	M.A. in Education	Education	Humanities and Social Sciences
29	M.A. in English	English and Foreign Languages	
30	M.A. in Linguistics and Language Technology		
31	M.A. in Linguistics and Endangered Languages		
32	M.A. in Hindi	Hindi	
33	Post Graduate Diploma in Translation (Hindi)		
34	Master in Law (L.L.M)	Law	
35	M.A. in Mass Communication and Journalism	Mass Communication and Journalism	
36	M.A. in Communication for Development		
37	M.A. in Social Work	Social Work	
38	M.A. in Sociology	Sociology	
39	P.G. Diploma in Child Rights and Governance	Centre for Inclusive Development	
40	P.G. Diploma in Women's Studies	Chandraprabha Saikiani Centre for Women's Studies	
41	M.B.A.*	Business Administration	Management Sciences
42	Master of Tourism and Travel Management		
43	Certificate in NCCMP#		
44	M.Com	Commerce	
45	M.Sc. in Chemistry	Chemical Sciences	Sciences
46	M.Tech. in Polymer Science and Technology		
47	M.Sc. in Environmental Science	Environmental Science	
48	M.Sc. in Mathematics	Mathematical Sciences	
49	M.Sc. in Molecular Biology and Biotechnology	Molecular Biology and Biotechnology	
50	M.Sc. in Physics	Physics	
51	Diploma in Paralegal Practice#	Community College	

*Admission to M.B.A. is made on the basis of basis of CAT/ MAT/XAT/ATMA/GMAT/CMAT score.
§AICTE Approved. # Admision not through TUEE.

Ph.D. Programmes

Sl. No.	Programme	Department /Centre	School
52	Ph.D. in Civil Engineering	Civil Engineering	Engineering
53	Ph.D. in Computer Science and Engineering	Computer Science and Engineering	
54	Ph.D. in Electronics and Communication Technology	Electronics and Communication Engineering	
55	Ph.D. in Energy	Energy	
56	Ph.D. in Food Engineering and Technology	Food Engineering and Technology	
57	Ph.D. in Mechanical Engineering	Mechanical Engineering	
58	Ph.D. in Cultural Studies	Cultural Studies	Humanities and Social Sciences
59	Ph.D. in Education	Education	
60	Ph.D. in English and Foreign Languages	English and Foreign Languages	
61	Ph.D. in Hindi	Hindi	
62	Ph.D. in Mass Communication and Journalism	Mass Communication and Journalism	
63	Ph.D. in Sociology	Sociology	
64	Ph.D. in Assamese Studies	Centre for Assamese Studies	Humanities and Social Sciences
65	Ph.D. in Business Administration	Business Administration	Management Sciences
66	Ph.D. in Chemical Sciences	Chemical Sciences	Sciences
67	Ph.D. in Environmental Science	Environmental Science	
68	Ph.D. in Mathematical Sciences	Mathematical Sciences	
69	Ph.D. in Molecular Biology and Biotechnology	Molecular Biology and Biotechnology	
70	Ph.D. in Physics	Physics	

Centre for Open and Distance Learning (CODL)

SN	Programme*	Department	School
71	P.G. Diploma in Renewable Energy and Energy Management	Energy	Engineering
72	M.A. in Mass Communication	Mass Communication and Journalism	Humanities and Social Sciences
73	P.G. Diploma in Human Resource Management	Business Administration	Management Sciences
74	P.G. Diploma in Environmental and Disaster Management	1. Environmental Science	Sciences
		2. Centre for Disaster Management	Management Sciences

* Admission is made through the Centre for Open and Distance Learning.

1.6: Curricula

Each academic programme of the University is comprised of a set of Courses, some of which are core and others are elective. Flexibility is there for students to opt for elective Courses on their own choices from a pool. Students are also required to register for some inter-disciplinary Courses as open elective under the Choice Based Credit System. The Courses across the Departments are designed in such a way that multiple teaching pedagogies can be incorporated in delivering the contents of a Course.

The medium of instruction and examination at all the levels in the University is English, except for courses on languages such as Hindi, Assamese, Chinese, German, etc. In framing the courses, care is taken so that students are NOT burdened with formal lectures only. There is adequate provision for seminars, tutorials, case studies, guided field work, etc., whatever necessary, to promote the habit of independent thinking.

To relate theoretical knowledge to the practical field, proper measures are taken to conduct case studies and guided field works from real life problems. Group Discussion is also used as a teaching pedagogy to increase the analytical capability and creativity of the students.

1.7: Evaluation System

Students are evaluated through a relative grading system. The University follows a continuous comprehensive evaluation system, under which a student is evaluated through a number of tests and assignments spread over the entire semester. Finally, a Letter Grade is awarded against each Course based on these assessments.

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 Grades represents a Grade Point as tabulated 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

The letter Grades 'O' to 'P' are qualifying Grades, while 'F' and 'Ab' are disqualifying Grades. The 'Ab' Grade is awarded if a student remains absent in the evaluation components without any valid reason. The students, awarded with the 'F' or 'Ab' Grade in a Course are required to re-register the Course.

Additionally there are some other Grades followed in University as stated below:

Letter Grade	Status	Remarks/ Context
I	Incomplete	Some evaluation components remain incomplete due to an extraordinary situation faced by the student. This Grade should be converted to any of the regular Grades mentioned above by completing the left out component(s) within the first month of the next semester.
X	Extended Project	A project work remains incomplete and it is extended to the next semester.
S	Satisfactory	Successful completion of a Foundation/ Audit Course.
U	Unsatisfactory	Unsuccessful in completing a Foundation/ Audit Course.
W	Withdrawn	(i) The student withdraws the Course after the last date for withdrawal of Courses. (ii) Deficit in attendance.

1.8: Important Academic Rules

Course Registration

A student needs to register for some courses/research work(s) in each semester through a Registration Card. The course adviser appointed by the Head of a Department/Centre assists the students in selecting courses for a semester. The Registration Card contains four copies; one each for the Academic Section, Department, Hostel Warden and the student.

Attendance Requirement

All students must attend every lecture, tutorial and practical classes of each course registered by them. To account for late registration, sickness or such other contingencies, the minimum attendance requirement will be 75% of the classes. Students with shortage in attendance in a course will not be allowed to appear in the semester end examination and they will be awarded W (withdrawn) grade in the course.

Renewal of Admission

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

Requirement for the Award of Degree/Diploma/Certificate

A student shall be required to satisfy the following conditions for the award of Degree/Diploma/Certificate:

a) To obtain a qualifying Grade in each of the registered Courses.

b) To earn the minimum credit required for the award of Degree/Diploma/Certificate within the prescribed maximum duration of the programme (maximum credit load allowed per semester is 25).

c) To secure a minimum CGPA of 4.5.

Termination of Candidature or Withdrawal of Awarded Degree/ Diploma/Certificate

The candidature of a student in a Programme may be terminated at any stage in future. Even an already awarded Degree/Diploma/Certificate may be withdrawn, under various circumstances, such as:

(a) Failing to complete successfully all the components of the Programme within the maximum period of completion specified for the Programme.

(b) Establishment of deliberate suppression of any previous fact in the application form or at the time of admission, which may determine the eligibility for admission.

(c) Production/submission of any false/tempered document at the time of application/admission.

(d) Serious violation of any clause of the Regulations on Maintenance of Discipline and Hostel Rules prescribed by the University.

(e) Indulging in ragging inside or outside the University campus. Students are advised to visit www.ugc.ac.in or www.tezu.ernet.in for UGC Regulations on curbing the menace of ragging in Higher Educational Institutions, 2009.

(f) During the study period in the University, involvement in any criminal/offensive activity, that may be punishable according to the Law of the country.

1.9: IMPORTANT RULES

(a) Motorized vehicles by students are not allowed on the campus. Students are advised to avoid vehicles, rather may use bicycles.

(b) During studentship of the University, students are governed by the disciplinary rules of the University, on and off the campus.

SECTION- II

Programmes, Intake & Eligibility Criteria for Admission

PROGRAMMES, INTAKE & ELIGIBILITY CRITERIA FOR ADMISSION

UG Degree/ Integrated/ Certificate Programmes				
Sl. No.	**Programme Names**	**Intake Capacity**		**Eligibility**
		Normal	**SSS$**	
1	**B. Tech. in Civil Engineering†**	50	04	10+2 or equivalent examination with **pass** marks in (1) Physics, (2) Mathematics, (3) Language, (4) any subject (Chemistry, Biology, Biotech, Technical vocational subjects), (5) Any other subject and with minimum 60% (55% in case of candidates belonging to reserved category) marks in above subjects taken together.
2	**B. Tech. in Computer Science and Engineering†**	52	04	
3	**B. Tech. in Electrical Engineering†**	30	-	
4	**B. Tech. in Electronics and Communication Engineering†**	52	04	
5	**B. Tech. in Food Engineering and Technology†**	30	04	
6	**B. Tech. in Mechanical Engineering†**	52	04	
7	**B.Ed.**	50	-	Minimum 55% marks in B.A./B.Sc./ B.Tech./ B.E.
8	**Certificate in Chinese**	39	-	10+2 with 45% of marks in aggregate.
9	**Integrated B.A. B.Ed. (English Major)**	10	02	First Division in the 10+2 Examinations
10	**Integrated M.A. in English**	20	02	
11	**Integrated M. Com.**	30	02	Minimum 60% aggregate marks in 10+2 Examination

12	**Integrated B.Sc. B.Ed. (Chemistry Major)**	10	01	First division in 10+2 Examination (Science)
13	**Integrated B.Sc. B.Ed. (Mathematics Major)**	10	01	
14	**Integrated B.Sc. B.Ed. (Physics Major)**	10	01	
15	**Integrated M.Sc. in Chemistry**	20	01	Minimum 60% aggregate marks in Physics, Chemistry and Mathematics at 10+2 examination with minimum pass marks in individual subjects and pass mark in English.
16	**Integrated M.Sc. in Mathematics**	20	01	Minimum 60% aggregate marks in Mathematics, Physics, Chemistry/Statistics in 10+2 examination with minimum pass marks in individual subjects and pass mark in English.
17	**Integrated M.Sc. in Physics**	20	01	Minimum 60% aggregate marks in Mathematics, Physics, Chemistry in 10+2 examination with minimum pass marks in individual subjects and pass mark in English
18	**Integrated M.Sc. in Bioscience and Bioinformatics**	20	01	Minimum 60% aggregate marks in Biology, Chemistry, Physics and/or Mathematics subjects in 10+2 examination with minimum pass marks in individual subjects and pass mark in English.
	Post Graduate Degree/ Diploma Programmes			
19	**M. A. in Cultural Studies**	46	3	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
20	**M. A. in Education**	30	5	Bachelor's Degree with at least 45% marks
21	**M.A. in English**	50	2	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
22	**M. A. in in Linguistics and Language Technology**	20	2	(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.
23	**M. A. in in Linguistics and Endangered Languages**	20	0	Bachelor's degree in any discipline with 45% marks in Major or 50% marks without Major.

24	**M. A. in Hindi**	25	2	Bachelor's Degree with Major/ Honours in Hindi from a recognized University or Bachelor's degree with Hindi as an elective subject having at least 50% of marks in aggregate.
25	**P. G. Diploma in Translation (Hindi)**	23	-	BA with Hindi Major/ Honours; B. A. with Elective Hindi; B.A/B.Com/B. Sc with Praveen/ Sahityratna. Candidates not having Major/Honours must have at least 50% marks in aggregate.
26	**M. A. in Mass Communication and Journalism**	35	2	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.
27	**M. A. in Communication for Development**	12	2	Bachelor's Degree in any discipline with at least 55% marks with or without Major/Honours.
28	**M. A. in Social Work**	15	0	Graduate in any discipline with 45% marks in Major.
29	**M. A. in Sociology**	30	5	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.
30	**Master of Law (LLM)**	20	-	Bachelor's degree in Law with a minimum of 50% marks.
31	**P. G. Diploma in Child Rights and Governance**	20	1	Bachelor's Degree in any discipline
32	**P. G. Diploma in Women's Studies**	20	-	
33	**M. Sc. in Chemistry**	20	1	Bachelor's degree with major/ honours in Chemistry subject with a minimum of 45% marks and having Physics and Mathematics as subsidiary subjects.
34	**M. Sc. in Environmental Science**	30	2	B.Sc. in Physical/Biological/ Earth and Environmental Sciences as major/ honours with minimum of 50% marks. Candidates not having major/honours must have at least 55% marks in aggregate. Or, B.Sc. (Agri.) with at least 6.0 CGPA in 10 point scale or equivalent. Or Bachelor's degree in

				Engineering /Medicine with 55% marks or equivalent grade points.
35	**M. Sc. in Mathematics**	42	1	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.
36	**M. Sc. in Molecular Biology and Biotechnology***	30	-	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.
37	**M. Sc. in Physics**	30	1	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
38	**Master of Computer Application (MCA)**	45	-	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 or 55% marks in aggregate in BCA. Passed in Mathematics at 10+2 Examination.
39	**M.Tech. in Civil Engineering**	9	-	B.Tech. in Civil Engineering
40	**M. Tech. in Polymer Science and Technology****	10	1	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.
41	**M. Tech. in Information Technology**	Through GATE- 18 Through TUEE -10	-	B.E. / B.Tech./AMIE/AMIETE in CSE/IT/ECE/allied subjects or MCA or its equivalent or M.Sc. in Computer Science / IT / Electronics / Mathematics / Statistics with a minimum of 55% marks in aggregate. Candidates selected under GATE must possess a valid GATE score in CS.
42	**M. Tech. in Electronics Design and Technology**	Through GATE- 18 Through TUEE-10	2	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

43	**M. Tech. in Bioelectronics**	Through GATE -12 Through TUEE -03	3	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
44	**M. Tech. in Energy Technology**	Through GATE- 18 Through TUEE- 10	-	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
45	**M. Tech. in Food Engineering and Technology*** **	Through GATE -15 Through TUEE- 03	-	B.E. /B. Tech. in Food Engineering and Technology/ Food Process Engineering/ Food Technology/ Agricultural Engineering/ Mechanical Engineering/ Chemical Engineering / Biotechnology/Dairy Engineering /Dairy Technology or food related fields with a minimum of 55% marks in aggregate. (Note: The B. Tech./ B.E. programme completed by the candidate should satisfy the AICTE requirements).
46	**M. Tech. in Mechanical Engineering (Specialization: Machine Design)**	Through GATE -15 Through TUEE- 03	-	BE/B.Tech. or equivalent Bachelor's degree in Mechanical, Aerospace Engineering, Automobile Engineering or in any allied disciplines in Mechanical Engineering with a minimum of 60% marks (or 6 CGPA in 10 point scale) in aggregate.
	M. Tech. in Mechanical Engineering (Specialization: Thermo Fluids Engineering)			BE/B.Tech. or equivalent Bachelor's degree in Mechanical, Energy and Power Engineering, Aerospace/ Aeronautical or any other relevant Engineering discipline.
47	**M. Com**	06	2	B. Com. with minimum of 50% marks in major/honours. Mathematics at degree level is desirable.
48	**Master of Tourism and Travel Management (MTTM)**	15	2	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
49	**Master of Business Administration (MBA)^**	46	4	Bachelor's Degree in any discipline with a minimum of 50% marks in major/honours subject or in aggregate. (Admission Process of 2018 is already over)

Ph. D. Programmes				
50	**Ph.D. in 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
51	**Ph.D. in Education**	-	-	Post Graduate in Education or in any allied discipline/ subjects with 55% marks.
52	**Ph.D. in English and Foreign Languages**	-	-	M.A. in English (specialization may be in Literature, English Language Teaching or Linguistics); M.A. in Linguistics
53	**Ph.D. in Hindi**	-	-	M.A. in Hindi
54	**Ph.D. in Mass Communication and Journalism**	-	-	M.A. in Mass Communication, Mass Communication & Journalism/ Communication. Master of mass Communication (MMC). Master of Journalism & Mass Communication (MJMC). Master of Science in Communication (M.S. Communication). M.Sc. Communication. Master of Journalism.
55	**Ph.D. in 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
56	**Ph.D. in 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.);
57	**Ph.D. in 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.
58	**Ph.D. in Mathematical Sciences**	-	-	M.A. / M.Sc. in Mathematics/ Statistics/ Physics/Computational Seismology/ Economics with requisite background in Mathematics.

59	**Ph.D. in Molecular Biology and Biotechnology**	-	-	Masters in any branches of Life Sciences/ Physical Sciences/ Chemical Sciences/ Mathematical Sciences/ Agricultural Sciences / Veterinary Sciences/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.
60	**Ph.D. 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.
61	**Ph.D. in Computer Science and Engineering**	-	-	M.Tech. in Computer Science/ I.T./Electronics. M.Sc. in Computer Science/ I.T./ MCA. B.E./B.Tech. with 75% marks in aggregate or equivalent CGPA with valid GATE Score and Minimum two recommendation Letters from the Institute/University from where B.E./B.Tech degree was obtained.
62	**Ph.D. in Civil Engineering**	-	-	(a) M.E./M.Tech. /M.Sc.(Engg.) in Civil Engg. or allied areas or (b) M.Sc. in relevant discipline with minimum 70% marks in aggregate or equivalent CGPA or (c) B.E. / B.Tech with 75% marks in aggregate or equivalent CGPA with a valid GATE Score. Minimum two recommendation Letters from the Institute/University from where B.E./B.Tech degree was obtained.
63	**Ph.D. in Electronics and Communication Technology**	-	-	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 75% marks in aggregate or equivalent CGPA with valid GATE score. Minimum two recommendation Letters from the Institute/University from where B.E./B.Tech degree was obtained.
64	**Ph.D. in Energy**	-	-	M.Sc. / M.E. / M.Tech. degree in Energy Technology/ Energy Management/Energy related Engineering and Technology/ Physics/ Chemistry/Agriculture Allied subjects.

65	**Ph.D. in Food Engineering and Technology**	-	-	M.Tech. / M.E./Integrated M.Tech. in Food Engineering and Technology/ Food and Dairy related other programme/Mechanical Engineering/Chemical Engineering/Bio-process/Bio-chemical/ Biotechnology,or, M.Sc. and Integrated M.Sc. in Food processing Technology/Food and Dairy related other programme/applied Microbiology/ Microbiology/ Biochemistry/Chemistry/ Biotechnology/Bioscience and Informatics,or, B.E. / B.Tech.(in Food Engineering and Technology/ Food and Dairy related other programme) with 75% marks in aggregrate or equivalent CGPA with valid GATE score. Minimum two recommendation Letters from the Institute/University from where B.E./B.Tech degree was obtained.
66	**Ph.D. in Mechanical Engineering**	-	-	M.E. / M.Tech. / M.Sc. (Engg.) in Mechanical Engg. or allied areas. (i) B.E. / B.Tech. with 75% marks in aggregate or equivalent CGPA with a valid GATE Score (ii) Minimum two recommendation letters from the Institution/ University from where B.E./B.Tech. was obtained.
67	**Ph.D. in 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

§ Self Supported Scheme.

† Admission to all the B. Tech. programmes shall be made through the **JEE Main 2018** conducted by CBSE. Out of the total seats, 60% seats are reserved for permanent residents of any of the North East States (to be filled up through the Tezpur University Counselling) and remaining 40% seats are open for filling up through the Central Counselling conducted by CSAB/JoSA.

*10 seats are reserved for permanent residents of any of the North-East-States (filled up through the Tezpur University Entrance Examinations-2018) and 20 seats are filled up through "All India Combined Entrance Test" conducted 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 seats remaining vacant after accommodating candidates with valid GATE score will be filled up through TUEE-2018 merit list. 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 score (30% weightage).

^Admission to be MBA programme shall be made on the basis of CAT/ MAT /XAT /ATMA /GMAT/ CMAT score.

Important Note: *Students of any category seeking admission in open category seats should fulfil the requirement as needed for General category candidates.*

SECTION- III

Admission Procedure

ADMISSION PROCEDURE

Tezpur University offers a number of programmes on Under-Graduate Degree/Diploma/Certificate, Post-Graduate Degree/Diploma and Doctor of Philosophy Degree in various Disciplines. Admission to most of these programmes is held through entrance examinations conducted by the University in various centres across the country. Application process for the session 2018-2019 will be online, but examination will be offline.

The general admission procedures for various Academic Programmes are outlined below:

1. B. Tech. Programmes:

(i) Candidates seeking admission to the B. Tech. Programmes are required to appear in the **JEE (Main) - 2018** to be conducted by CBSE, New Delhi. All admission shall be based on **JEE (Main) - 2018** All India Ranking/CRL.

(ii)The Candidates who appear in the **JEE (Main) - 2018** have two channels for admission to the B. Tech. Programmes.

(a) 40% of the total seats shall be made through the central counselling i.e. Central Seat Allocation Board (CSAB) based on **JEE (Main)-2018.** The Candidates need to participate in "Central Counselling" conducted by CSAB/ JoSA (Online Choice filling process), to get admission in Tezpur University (TU) against these 40% seats.

(b) 60% of the total seats shall be made through the Tezpur University counselling. These seats are reserved for the permanent residents of North East (NE) States. The Candidates need to fill-up Tezpur University application form in addition to **JEE (Main) - 2018** application. The applicants desiring a seat under the NE quota must upload a PRC (Permanent Residence Certificate) issued by the competent authority of any of the North Eastern states along with the Tezpur University application form.

2. M. Tech. Programmes:

Candidates applying for M.Tech. Programmes may seek admission either based on valid GATE score on GATE category or based on the performance in the University entrance examinations.

3. M.Sc. Programme in Molecular Biology and Biotechnology:

Candidates in this Programme may seek admission either based on the performance in the University entrance examination or through the *All India Combined Entrance Test* conducted by Jawaharlal Nehru University, New Delhi, under the sponsorship of the Department of Biotechnology, Govt. of India (eligibility as decided by DBT, Govt. of India). For NE reserved seat PRC will be required.

4. **Master of Business Administration (MBA)**:

Candidates in the MBA Programme may seek admission on the basis of CAT/ MAT /XAT/ATMA/GMAT/CMAT score and the score of the Test should be valid till the day of Personal Interaction.

5. **All other Non Ph.D. Programmes**:

Applicants of other programmes, admission to which is made based on the performance in the University entrance examinations, shall have to appear in the University entrance examinations to be conducted this year.

6. **Ph. D Programmes**:

(i) General criteria as per UGC Guidelines for admission into Ph.D. Programmes:

- Master's degree or a professional degree declared equivalent to the Master's degree by the corresponding statutory regulatory body, with at least 55% marks in aggregate or its equivalent grade 'B' in the UGC 7-point scale (or an equivalent grade in a point scale wherever grading system is followed) or an equivalent degree from a foreign educational Institution accredited by an Assessment and Accreditation Agency which is approved, recognized or authorized by an authority, established or incorporated under a law in its home country or any other statutory authority in that country for the purpose of assessing, accrediting or assuring quality and standards of educational institutions.
- Candidates possessing a Degree considered equivalent to M.Phil. Degree of an Indian Institution, from a Foreign Educational Institution accredited by an Assessment and Accreditation Agency which is approved, recognized or authorized by an authority, established or incorporated under a law in its home country or any other statutory authority in that country for the purpose of assessing, accrediting or assuring quality and standards of educational institutions, shall be eligible for admission to Ph.D. programme.
- Relaxation of 5% of marks, from 55% to 50%, or an equivalent relaxation of grade, may be allowed for those belonging to SC/ST/OBC (non-creamy layer)/ Differently-Abled and other categories of candidates as per the decision of the Commission from time to time, or for those who had obtained their Master's degree prior to 19th September, 1991. The eligibility marks of 55% (or an equivalent grade in a point scale wherever grading system is followed) and the relaxation of 5% to the categories mentioned above are permissible based only on the qualifying marks without including the grace mark procedures.

(ii) Department-specific further requirement for admission into Ph.D. Programme in Tezpur University is given separately.

(iii) Ph.D. candidates shortlisted based on the performance in the University entrance examinations shall be called for personal interview in the respective Departments.

(iv) Candidate desiring full time Ph. D. will be given preference.

Entrance Examination Schedule

June 8, 2018 (10 AM to 12 Noon)	**June 8, 2018 (2 PM to 4 PM)**
1) Integrated M.Sc. in Mathematics/Integrated B.Sc. B.Ed. (Mathematics major) 2) M.A. in Social Work 3) P.G. Diploma in Translation (Hindi) 4) B.Ed. 5) M.A. in Linguistics and Endangered Languages 6) M.Tech. in Food Engineering and Technology 7) LLM 8) Ph.D. in Business Administration 9) Ph.D. in Chemical Sciences 10) Ph.D. in Civil Engineering	1) Integrated M.Sc. in Physics/Integrated B.Sc. B.Ed. (Physics major) 2) M.Tech. in Bioelectronics 3) Master of Tourism and Travel Management(MTTM) 4) M.Sc. in Chemistry 5) M.Sc. in Mathematics 6) M.A. in Sociology 7) Ph.D. in Cultural studies 8) Ph.D. in Environmental Science
June 9, 2018 (10 AM to 12 Noon)	**June 9, 2018 (2 PM to 4 PM)**
1) Integrated M.Sc. in Chemistry/Integrated B.Sc. B.Ed.(Chemistry major) 2) P.G. Diploma in Child Rights and Governance 3) M.Tech. in Mechanical Engineering 4) M.A. in Hindi 5) M.A. in Mass Communication and Journalism 6) Certificate in Chinese 7) M.Tech. in Electronics Design and Technology 8) Ph.D. in Education 9) Ph.D. in Physics 10) Ph.D. in Food Engineering & Technology	1) Integrated M.Sc. in Bioscience and Bioinformatics 2) M.Sc. in Environmental Science 3) M.Tech. in Polymer Science and Technology 4) MCom. 5) MTech. in Civil Engineering 6) M.A. in Cultural Studies 7) Ph.D. in Sociology 8) Ph.D. in Molecular Biology and Biotechnology 9) Ph.D. in Mathematical Sciences 10) Ph.D. in Mechanical Engineering
June 10, 2018 (10 AM to 12 Noon)	**June 10, 2018 (2 PM to 4 PM)**
1) Integrated M.A. in English / Integrated B.A. B.Ed. (English major) 2) M.A. in Linguistics and Language Technology 3) M.A. in Education 4) M.Tech. in Energy Technology 5) P.G. Diploma in Women's Studies 6) M.A. in Communication for Development 7) M.Sc. in Physics 8) Ph.D. in Electronics and Communication Technology 9) Ph.D. in English and Foreign Languages 10) Ph.D. in Mass Communication and Journalism	1) M.Tech. in Information Technology 2) Master of Computer Application (MCA) 3) M.Sc. in Molecular Biology and Biotechnology 4) Integrated M. Com. 5) M.A. in English 6) Ph.D. in Computer Science and Engineering 7) Ph.D. in Energy 8) Ph.D. in Hindi

List of the University Entrance Examinations Centres

Agartala	Goalpara	Kolkata
Aizwal	Guwahati	North Lakhimpur
Barpeta Road	Hyderabad	Patna
Bengaluru	Imphal	Pune
Bhubaneswar	Itanagar	Shillong
Chennai	Jorhat	Silchar
Delhi	Kanpur	Siliguri
Dibrugarh	Kohima	Tezpur
Diphu	Kokrajhar	

Application Procedure

Interested eligible candidates may APPLY ONLINE through the University website www.tezu.ernet.in/admission/ by paying a fee of Rs. **400/-** for **SC, ST** and **PWD** candidates, and Rs. **800/-** for other categories. Additional bank charges may apply.

The applicants should read the available instructions carefully while filling in the online Application Form. The following major points are also to be noted:

a) **Application Fee**: The payment of the Application fee is to be made online using credit card/debit card/net-banking. The transaction detail may be printed and preserved for later references. **The submission of an Application Form will remain incomplete until the required Application Fee is transferred successfully.**

b) **Multiple Programmes**: Candidates applying for multiple Programmes must apply separately with separate Application Fee for each Programme. However, there will be one entrance test per department for Integrated M.Sc. and Integrated B.Sc. B.Ed. programmes. Similarly there will be only one entrance test for Integrated M.A. and Integrated B.A. B.Ed. in English. Students applying for integrated programmes for the same department can apply in single application form. The candidates can give their preference either for a single programme or both the programmes. The one who applies for both the programmes will be considered as applying for two programmes and will have to pay two times the application fee.

c) **B. Tech. Programmes**: In the case of B. Tech. programmes, a candidate needs to apply in a single application form only. The selected candidates will opt for the Programme/ Department based on the availability of seats at the time of their turns during the admission process.

d) **Candidates yet to obtain the last qualifying Degree/Diploma/Certificate**: Candidates who have already finished their qualifying examinations or expect to finish all the components, including practical, viva-voce (if any), and backlog courses/ papers of earlier semesters before the date of admission may also apply.

e) **Admit Card for Entrance Examinations**: Candidates shortlisted for appearing University entrance examinations (not for B.Tech. Programmes) will be intimated separately through e-mail/SMS in their registered e-mail IDs/mobile numbers to download their admit cards.

f) **Documents (digital/scanned copy) to be uploaded**:

(i) Copy of the JEE (Main) 2018 admit card, if applying for the B. Tech. Programmes.

(ii) Copy of the Permanent Residence Certificate (PRC) issued by the competent authority of any North East State, if applying for the B.Tech. Programmes or M.Sc. Programme in Molecular Biology and Biotechnology under the North East quota.

(iii) Copy of the valid GATE score card, if applying for direct admission to any M.Tech. Programme.

(iv) Copy of the relevant certificate issued by the competent authority, if seeking admission under any reserved category as mentioned.

(v) Copy of the Sponsorship/No Objection Certificate issued by the employer, if the candidate is employed.

(vi) A passport size photograph.

(vii) Scanned copy of the signature.

Examination Pattern:

(i) Duration for the TUEE for all programmes is proposed to be of 2 hours.

(ii) The question will be of multiple choice types in general. All such questions will carry **1** mark for a correct answer and **-0.25** marks for a wrong answer.

(iii) For the Departments under the School of Humanities and Social Sciences, question papers will comprise of 60 multiple choice questions and descriptive questions of 40 marks.

(iv) In case of Ph.D. programmes under the School of Humanities and Social Sciences it will comprise of be 40 MCQ's and descriptive questions of 60 marks.

(v) MCQ part of the question paper will be divided into 4 sections; **I, II, III,** and **IV**.

Tie-Breaking Criteria:

If there is a tie, the ratio of positive marks to negative marks will be considered. Candidate having higher absolute value of the ratio will be given priority.

If tie is not resolved even after this, the following procedure will be followed

a) The candidate scoring higher marks in section **IV** will be given priority. In case of a tie even thereafter, section **III** will be considered and so on.

b) If there is a tie even after this criterion either graduation or 10+2 marks will be considered.

c) If the resolution is not possible after this criterion, candidates will be given equal priority.

Reservation Policy

(a) Seats are reserved for SC/ST/OBC (NCL) and Differently abled persons as per the Government of India rules. In the case of differently abled persons, a minimum of 40% permanent disabilities will only be considered.

(b) As per the Directives of the Govt. of India, Supernumerary Seats are available in the following categories:

1. Prime Minister's special scholarship scheme for candidates from Jammu and Kashmir.
2. Upto 5% of the approved seats are reserved for the widows/wards/wives of Armed Forces personnel and Ex-Servicemen as per the priorities set by Govt. of India:

Note:

Tezpur University has a provision for admission to some Academic Programmes under the **Self-Supported Scheme (SSS)**. The waitlisted candidates on merit basis shall be eligible for the admission under SSS with additional fees (see page 173). The candidates admitted under SSS will not be converted to any normal seat after completion of the admission process even though vacancy arises due to withdrawal of seats by some students.

Important Dates

(a)	Opening of the online application submission	: 20 February, 2018
(b)	Closing of the online application submission	: 06 April 2018
(c)	Online Admit Card Generation	: 23 April, 2018
(d)	University entrance examinations	: 08, 09, 10 June, 2018
(e)	Declaration of merit lists of provisionally selected candidates	: 25 June, 2018 (tentative)
(f)	Counselling/Admission of selected candidates	: 23-26 July, 2018 (tentative)
(g)	Commencement of classes of the Autumn Semester	: 27 July, 2018

Note:

(i) All communication with candidates will be made through their registered e-mail ID/mobile number or notification in the admission portal www.tezu.ernet.in/admission.

(ii) No separate letter will be issued for acceptance/rejection of application form, appearing entrance examinations (admit card), entrance examination schedule, selection for admission, etc.

(iii) Communication for any doubt/query may be made on tuee18@tezu.ernet.in

Admission

Admission of a candidate to a Programme is subject to the following conditions:

(a) Fulfilment of the eligibility criteria as specified in Eligibility Criteria for Admission

(b) Selection for admission to the Programme.

(c) Production of all the relevant documents such as pass certificates and marksheets of all earlier examinations with requisite percentage of marks in original and original copies of documents

uploaded at the time of submission of the application form.

(d) Submission of a set of self-attested copy of all pass certificate, marksheets and other the relevant documents.

(e) Submission of the character certificate from the Head of the Institution and Migration certificate (in original) from the Board/University last attended.

(f) Submission of a self-attested printout of the filled-in application form.

(g) Receipt of payment of admission fee in full.

Provisional Admission

(a) If the result of the qualifying examination of a student is awaited at the time of admission, he/she must produce/submit pass certificate/marksheet with requisite percentage of marks within 30th October, 2018 (other than Ph.D. Programme). Such a candidate must submit a proof of taking all the examinations including practical/lab/project/backlog courses of the qualifying Degree/Diploma/Certificate at the time of admission duly certified by the Head of the Institute last attended.

(b) If a candidate fails to produce/submit any document (such as the completion certificate and mark sheet/transcripts of the qualifying examinations, migration certificate from the Board/University last attended, etc.) at the time of admission, the same must be produced as early as possible but not later than 30th October, 2018. Candidates failing to produce marksheet or pass certificate with requisite percentage of marks within the specified period will not be allowed to continue her/his study.

Admission to Ph.D. Programmes:

(i) The candidates who have appeared in the qualifying examination but their results are yet to be declared may be selected provisionally for admission to Ph.D. programme. Such candidates must produce mark sheets of the qualifying examination fulfilling the eligibility criteria at the time of admission.

(ii) If a provisionally selected candidate fails to produce the mark sheet of the qualifying examination at the time of admission, the seat will be offered to the next eligible candidate from the merit list.

All admissions are provisional in nature. The admission of a student in a Programme may be cancelled under the following circumstances:

(i) Production/submission of any false/tempered information/document.

(ii) Failing to produce/submit any required pending document within 30th October, 2018.

(iii) If the required percentage of marks of the qualifying examination is not fulfilled or does not meet the requirement of the eligibility criterion.

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SECTION- IV

Departments / Centres

CIVIL ENGINEERING
(Year of Establishment: 2009)

The Department of Civil Engineering of Tezpur University was established in the year 2009 under the School of Engineering for offering B.Tech. Degree. Ph.D. Programme was initiated in spring, 2011. The M.Tech. programme of the department is going to be started from Autumn,2018. 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. M.Tech. in Civil Engineering (Specialization in Geotechnical Engineering)
3. Ph.D.

Faculty and Areas of Interest

Professor		
1.	Utpal Kumar Das,* Ph.D. (GU)- HoD and Dean, P&D	*Geotechnical Engineering*
Assistant Professors		
1.	Ankurjyoti Saikia, Ph.D. (TU)	*Geotechnical Engineering*
2.	Kamal Uddin Ahamad,* Ph.D. (IITG)	*Environmental Engineering*
3.	Binanda Khungur Narzary, M.Tech. (IITG)	*Transportation Engineering*
4.	Debaraj Bailung Sonowal, M.Tech. (IITR)	*Structural Engineering*
5.	Shailen Deka, Ph.D. (IITG)	*Geotechnical Engineering*
6.	Jayanta Deori Bharali, M.Tech. (IITG)	*Transportation Engineering*
8.	Rituraj Buragohain, M.Tech. (IITG)	*Water Resources Engineering*
9.	Karabi Bharadwaj, M.E. (NITS)	*Structural Engineering*
10.	Arunav Chakraborty, M.E. (AEC)	*Geotechnical Engineering*

Recognized Ph.D Supervisor** *LEGENDS:* ***GU*-Gauhati University,* ***P&D****– Planning and Development,* ***TU****-Tezpur University,* ***IITG****-Indian Institute of Technology Guwahati,* ***IITR****-Indian Institute of Technology Roorkee,* ***AEC****-Assam Engineering College Guwahati,* ***NITS****– National Institute of Technology Silchar,* ***HoD****- Head of the Department.*

Facilities

The Department has the following Laboratory facilities

Computational Laboratory Facilities

MatLab and Simulink R2011b	Civil FEM for Ansys, version 12.1	Plaxis 2D
ETABS Version 9	AutoCAD	

Core Departmental Laboratories

Geotechnical Laboratory-I	Environmental Engg. Laboratory -I	Water Resources Laboratory
Structural Engg. & NDT Laboratory	Transportation Laboratory	Surveying Laboratory
Geotechnical Laboratory-II	Environmental Engg. Laboratory-II	Computational Laboratory

Research Activities

- No. of papers published in the year 2017-2018: 06
- No of ongoing research projects**: 02**
- No. of current Ph.D. scholars : 06

Selected Publications

1. Saikia, A., Baruah, D., Das, K., Rabha, H.J., Dutta, A., and Saharia, A., Predicting compaction characteristics of fine-grained soils in terms of Atterberg limits, International Journal of Geosynthetics and Ground Engineering, 3(2), DOI 10.1007/s40891-017-0096-4, 2017.

2. Hussain, I.,Das, M., Ahamad, K.U. and Nath, P., Water salinity detectionusing a smartphone. Sensros and Actuators B: Chemical, 239, 1042-1050(Impact Factor: 4.58). DOI:http://dx.doi.org/10.1016/j.snb.2016.08.102

3. Hussain, I., Ahamad, K.U. and Nath, P., Low-cost, robust and field portable smartphone platform photometric sensor for fluoride leveldetection in drinking water. Analytical Chemistry, 89 (1), 767-775.(Impact Factor: 5.88) DOI: 10.1021/acs.analchem.6b03424, 2017.

4. Chakraborty, A. and Goswami, D., Prediction of slope stability using multiple linear regression (MLR) and artificial neural network (ANN , Arab J Geosci. 10:385 DOI 10.1007/s12517-017-3167-x , 2017.

5. Das, U.K., A case study on performance of JiaBharali river bank protection measure using geotextile bags, *International Journal of Geosynthetics and Ground Engineering*, 2(12), 2016.

Courses offered in B. Tech. in Civil Engineering

First Semester				Second Semester		
Course Code	**Course Title**	**Cr.**		**Course Code**	**Course Title**	**Cr.**
MS 101	Mathematics -I	4		MS 103	Mathematics -II	4
PH 101	Physics -I	4		PH 102	Physics -II	4
CH 101	Chemistry	4		ME 102	Engineering Mechanics	4
EL 101	Basic Electrical Engineering	4		EL 102	Basic Electronics	5
ME 101	Engineering Graphics	3		CO 101	Introductory Computing	3
ME 103	Workshop Practice	2		CO 102	Computing Laboratory	2
Humanities Elective				**Science Elective**		
EG101/ SO101/ BM 101	Communicative English/ Sociology/Elementary Economics	3		BT 101/ES 101/ CH 102	Elements of Modern Biology/ Environmental Science/ Introductory Material Science	4

Third Semester				Fourth Semester		
Course Code	**Course Title**	**Cr.**		**Course Code**	**Course Title**	**Cr.**
MS 201	Mathematics-III	3		MS 203	Numerical Analysis	3
CE 215	Fluid Mechanics	4		CE 216	Building Construction and Drawing	4
CE 202	Surveying	4		CE 217	Hydraulics	3
CE 203	Building Materials and Technology	3		CE 208	Structural Analysis-I	4
CE 204	Engineering Geology	3		CE 209	Geotechnical Engineering-I	4
CE 205	Surveying Practical	2		CE 210	Transportation Engineering-I	3
CE 213	Concrete and Structure Laboratory	2				
CE 214	Solid Mechanics	4		CE 212	Geotechnical Engineering Laboratory	2

Fifth Semester				Sixth Semester		
Course Code	**Course Title**	**Cr.**		**Course Code**	**Course Title**	**Cr.**
BM 321	Fundamentals of Management	3		BM 322	Social Responsibility and Professional Ethics in Engineering	3
CE 301	Structural Design-I	4		CE 307	Structural Design-II	4
CE 302	Water Resources Engineering	3		CE 308	Environmental Engineering-II	3
CE 303	Structural Analysis-II	4		CE 314	Estimating, Costing and Valuation	3
CE 304	Geotechnical Engineering-II	3		-	CE Elective-I	3
CE 305	Environmental Engineering-I	3		-	Open Elective-I	3
CE 306	Environmental Engineering Laboratory	2				
CE 311	Transportation Engineering Laboratory	1				

Seventh Semester				Eight Semester		
Course Code	**Course Title**	**Cr.**		**Course Code**	**Course Title**	**Cr.**
CE 401	Transportation Engineering-II	3		CE 482	Project-II	12

CE 402	Construction Management	3		-	Open Elective-III	3
CE 471	Industrial Summer Training#	2		-	CE Elective-IV	3
CE 481	Project-I	6				
-	Open Elective-II	3				
-	CE Elective-II	3				
-	CE Elective-III	3				

Elective Courses					
Course Code	**Course Title**	**Cr.**	**Course Code**	**Course Title**	**Cr.**
CE 421	Advanced Reinforced Concrete Design	3	CE 432	Hydraulic Machines	3
CE 422	Dynamics of Structures	3	CE 433	Groundwater Hydrology and Management	3
CE 423	Pre-stressed Concrete and Industrial Structures	3	CE 434	Air Pollution and Industrial Waste Management	3
CE 424	Bridge Engineering	3	CE 435	Solid Waste Engineering	3
CE 425	Soil Dynamics and Foundation Engineering	3	CE 436	Environmental Impact Assessment	3
CE 426	Ground Improvement Methods	3	CE 437	Remote Sensing and GIS	3
CE 427	Earth Retaining Structures	3	CE 438	Pavement Design	3
CE 428	Applied Geotechnical Engineering	3	CE 439	Pavements Materials	3
CE 429	Environmental Geo-techniques	3	CE 440	Geometric Design of Road Transportation System	3
CE 430	Open Channel Flow	3	CE 441	Design and Construction of Rural Roads	3
CE 431	Hydraulic Structures	3	CE442	Analysis and design of foundations	3

Courses offered in M. Tech. in Civil Engineering

Specialization: Geotechnical Engineering

First Semester			Second Semester		
Course Code	**Course Title**	**Cr.**	**Course Code**	**Course Title**	**Cr.**
CE 501	Engineering Behaviour of Soil	4	CE 504	Advanced Foundation Engineering	4
CE 502	Geotechnical Exploration and Testing	5	CE 505	Ground Improvement Methods	3
CE 503	Strength and Compressibility of Soils	3	CE 590	Term Paper	2
CE 5xx	Elective I	3	CE 5xx	Elective III	3
CE 101	Elective II	3	CE 5xx	Elective IV	3
XX xxx	Open Elective I	3	CE 5xx	Elective V	3
			XX xxx	Open Elective II	3

Third Semester			Fourth Semester		
Course Code	**Course Title**	**Cr.**	**Course Code**	**Course Title**	**Cr.**
CE 598	MTech Project (MTP) Phase-I	12	CE 599	MTech Project (MTP) Phase-II	12

Elective Courses					
Semester - I				**Semester - II**	
Course Code	**Course Title**	**Cr.**	**Course Code**	**Course Title**	**Cr.**
CE 521	Unsaturated Soil Mechanics	3	CE 527	Slope stability and Retaining Structures	3
CE 522	Reinforced Earth and Geosynthetics	3	CE 528	Soil Dynamics and Foundation Engineering	3
CE 523	Rock Mechanics	3	CE 529	Earth and Rockfill Dams	3
CE 524	Groundwater Hydrology	3	CE 530	Geotechnical Aspects of Waste Disposal	3
CE 525	Numerical Methods in Engineering	3	CE 531	Environmental Geotechnology	3
CE 526	Analysis and Design of Pavements	3	CE 532	Earthquake Engineering	3

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

COMPUTER SCIENCE AND ENGINEERING
(Year of Establishment: 1994)

The Department of Computer Science and Engineering was established in 1994 and it 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 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 also been recognized as ISEA member, MeitY, GoI and BRICS-NU Member. 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, bioinformatics, image processing algorithms, speech processing, 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		
1.	Dilip Kumar Saikia,* Ph.D. (IITKgp)	*Networks, Mobile Computing*
2.	Dhruba Kumar Bhattacharyya,* Ph.D. (TU), Dean, Academic Affairs	*Data Mining, Network Security, Bio-informatics*
3.	Smriti Kumar Sinha,* Ph.D. (TU)	*Workflow Automation, Web Theory*
4.	Shyamanta Moni Hazarika,* Ph.D. (Leeds)- On Lien	*Knowledge Representation and Reasoning, Rehabilitation Robotics*
5.	Utpal Sharma,* Ph.D. (TU)	*Natural Language Processing*
6.	Nityananda Sarma,* Ph.D. (IITG)- HoD	*Wireless Networks and Mobile Computing*
7.	Bhogeswar Borah,* Ph.D. (TU)	*Data Mining, Image Processing*

Associate Professors		
1.	Sarat Saharia,* Ph.D. (TU)	*Pattern Recognition*
2.	Bhabesh Nath,* Ph.D. (TU)	*Data Mining*
3.	Siddhartha Sankar Satapathy,* Ph.D. (TU)	*Computational Biology and Bioinformatics, Wireless Sensor Network*
Assistant Professors		
1.	Sarangthem Ibotombi Singh, MCA (MU)	*Service Oriented Systems, Trust and Reputation*
2.	Loitongbam Basantakumar Singh, M.Tech. (TU)	*Object Recognition, Trust and Reputation*
3.	Rosy Sarmah,* Ph.D. (TU)	*Data Mining, Bioinformatics, Image Processing*
4.	Sanjib Kumar Deka,$ Ph.D. (TU)	*Cognitive Radio Network, Operating System*
5.	Debojit Boro, Ph.D. (TU)	*Network Security*
6.	Arindam Karmakar,* Ph.D. (ISI)	*Algorithms, Computational Geometry*
7.	Sanghamitra Nath, M.Tech. (TU)	*Speech Processing*
8.	Swarnajyoti Patra,* Ph.D. (JU)	*Pattern Recognition, Machine Learning, Remote Sensing, Image Analysis*
9.	Shobhanjana Kalita, M.Tech. (TU)	*Knowledge Representation and Reasoning*
10.	Nabajyoti Medhi, M.Tech. (TU)	*Software Defined Networking, Wireless Networks, Network Security, Cloud Computing, Web Technologies*

*** Recognized Supervisor $ Recognized Associate Supervisor**

LEGENDS: ***IITKgp****-Indian Institute of Technology Kharagpur,* ***TU****-Tezpur University,* ***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
* High Performance Computing (23 TFlops speed and 50TB storage) centre
* IoT Laboratory

The Department houses the following Research / Special Computing Facilities:

* Network/Information 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 papers published in the year 2017-2018: 46 (Journals: 19, Conferences: 23, Books: 04)
- No. of ongoing research projects: 08
- No. of current Ph.D. scholars: 43

Selected Publications:

1. Pooja Sharma, D K Bhattacharyya and J K Kalita, Disease biomarker identification from gene network modules for metastasized breast cancer, *Scientific Reports 7*, Nature Publishing Group, Article number: 1072, April, 2017.

2. N. Medhi, D. K. Saikia, OpenFlow-Based Scalable Routing With Hybrid Addressing in Data Center Networks, *IEEE Communication Letters*, Vol.-21, No.5, pp 1047-1050, 2017.

3. S. Deka and N Sarma, Opportunity Prdeiction at MAC-layer Sensing for Ad-hoc Cognitive Radio Networks, *Journal of Network and Computer Applications (Elsevier)*, vol. 82, issue C, pp.140- 151, March 2017.

4. Rajib Goswami, D K Bhattacharyya and M Dutta, Materialized view selection using evolutionary algorithm for speeding up big data query processing, *Journal of Intelligent Information Systems*, Springer, pp 1-27, March, 2017 [DoI:10.1007/s10844-017-0455-6].

5. Singla, A. and Patra, S., A Fast Automatic Optimal Threshold Selection Technique for Image Segmentation, *Signal, Image and Video Processing*, 11(2), 243 - 250, 2017.

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

First Semester				Second Semester		
Course Code	**Course Title**	**Cr.**		**Course Code**	**Course Title**	**Cr.**
MS 101	Mathematics -I	4		MS 103	Mathematics -II	4
PH 101	Physics -I	4		PH 102	Physics -II	4
CH 101	Chemistry	4		ME 102	Engineering Mechanics	4
EL 101	Basic Electrical Engineering	4		EL 102	Basic Electronics	5

ME 101	Engineering Graphics	3	CO 101	Introductory Computing	3
ME 103	Workshop Practice	2	CO 102	Computing Laboratory	2
Humanities Elective			**Science Elective**		
EG101/ SO101/ BM 101	Communicative English/ Sociology/Elementary Economics	3	BT 101/ ES 101/ CH 102	Elements of Modern Biology/ Environmental Science/ Introductory Material Science	4

Third Semester			**Fourth Semester**		
Course Code	**Course Title**	**Cr.**	**Course Code**	**Course Title**	**Cr.**
MS 201	Mathematics -III	3	CO 205	Formal Language and Automata	3
CO 201	Discrete Structures	4	CO 206	Design and Analysis of Algorithms	4
CO 202	Digital Logic Design	4	CO 207	System Programming	3
CO 203	Data Structures	5	CO 208	Object Oriented Programming	4
CO 212	Computer Architecture and Organization	5	CO 213	Data Communication	4
EL 204	Signals and Systems	3	EL 221	Electronic Devices and Circuits	4

Fifth Semester			**Sixth Semester**		
Course Code	**Course Title**	**Cr.**	**Course Code**	**Course Title**	**Cr.**
CO 301	Operating Systems	4	CO 306	Embedded Systems	4
CO 302	Database Systems	5	CO 307	Software Engineering	4
CO 303	Computer Graphics	4	CO 308	Compiler Design	4
CO 304	Principles of Programming Languages	3	BM 322	Social Responsibility and Professional Ethics in Engineering	3
CO 305	Computer Networks	4	-	CS Elective- I	3
BM 321	Fundamentals of Management	3	-	**Open Elective - I***	3

Seventh Semester$			**Eight Semester**		
Course Code	**Course Title**	**Cr.**	**Course Code**	**Course Title**	**Cr.**
CO 401	Artificial Intelligence	3	CO 482	Project- II	12
CO 471	Industrial Summer Training#	2	-	CS Elective -IV	3
CO 481	Project -I	6	-	**Open Elective –III***	3
-	CS Elective -II	3			
-	CS Elective- III	3			
-	**Open Elective –II***	3			

Elective Courses					
Course Code	**Course Title**	**Cr.**	**Course Code**	**Course Title**	**Cr.**
CO 421	Graph Theory	3	CO 435	Mobile Computing	3
CO 422	Theory of Computation	3	CO 436	Wireless Communication	3
CO 423	Web Technology	5	CO 501	Network Management and Security	3
CO 424	E-Commerce	5	CO 502	Data Compression	3
CO 425	VLSI Design	5	CO 503	Fuzzy Logic and Neural Networks	3
CO 426	Advanced Computer Architecture	3	CO 504	Natural Language Processing	3
CO 427	Modeling and Simulation	5	CO 505	Advanced Database Management System	3
CO 428	Computer Peripherals and	5	CO 506	Advanced Software Engineering	3

	Interfacing					
CO 429	Computer Systems Performance Evaluation	3		CO 507	Advanced Embedded Systems	3
CO 430	Management Information System	3		CO 508	Grid Computing	3
CO 431	System Analysis and Design	3		CO 509	Computer Vision	3
CO 432	Information Theory and Coding	3		CO 510	Robotics	3
CO 433	Digital Signal Processing	3		CO 511	Ubiquitous and Pervasive Computing	3
CO 434	Image Processing	3		CS 538	Computational Geometry	3

*Open Elective: Any course offered as open elective 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

Courses offered in Master of Computer Application

First Semester				Second Semester		
Course Code	**Course Title**	**Cr.**		**Course Code**	**Course Title**	**Cr.**
CS 404	Programming and Problem Solving	5		CS 403	File Structures	2
CS 405	Discrete Mathematics	3		CS 408	Data Structures	5
CS 406	Digital Logic	4		CS 409	Computer Organization and Architecture	5
CS 407	Information and Communication Technology	4		-	Elective	-
-	Elective	3		-	Elective	-
				-	**Open Elective-I**	3

Third Semester				Fourth Semester		
Course Code	**Course Title**	**Cr.**		**Course Code**	**Course Title**	**Cr.**
CS 502	System Software	3		CS 504	Operating System	4
CS 508	Database Management	5		CS 505	Software Engineering	4
CS 509	Data Communication	4		CS 507	Computer Networks	4
-	Elective	-		-	Elective	-
-	Elective	-		-	Elective	-
-	**Open Elective-II**	3		-	Elective/**Open Elective-III**	3

Fifth Semester				Sixth Semester		
Course Code	**Course Title**	**Cr.**		**Course Code**	**Course Title**	**Cr.**
CS 514	Minor Project	8		CS 515	Major Project	16
-	Elective	-				
-	Elective	-				
-	Elective	-				
-	Elective/**Open Elective-III**(if three Open Electives not yet	-				

	taken)			

Elective Courses					
Course Code	**Course Title**	**Cr.**	**Course Code**	**Course Title**	**Cr.**
CS 421	Graph Theory	3	CS 525	Artificial Intelligence	3
CS 422	Numerical Methods	4	CO 504	Natural Language Processing	3
CS 424	Formal Language and Automata	3	CS 529	Embedded Systems	4
CS 522	Computer Graphics	4			
CS 523	Enterprise Resource Planning	3	CS 531	Object Oriented Programming and Design	5
CS 524	Theory of Computation	3	CS 532	Compiler Design	4
CS 538	Computational Geometry	3	CO 503	Fuzzy Logic and Neural Network	3
CS 601	Design and Analysis of Algorithms	3	IT 504	E-Commerce	3
CS 602	Image Processing	3	IT 507	Computer Security and Cryptography	3
CS 606	Computer Architecture and Parallel Processing	3	IT 509	Data Mining and Data Warehousing	4
			IT 517	Pattern Recognition	4
CS 609	Geographic Information Systems	3	IT 611	Distributed Systems	3
CS 610	Bioinformatics	3	BM 421	Accounting and Financial Management	3
CS 621	Mobile Computing	4	BM 501	Foundation of Management	3
CS 625	Web Technology	4	BM 504	Managerial Economics	2
CS 725	Knowledge Representation and Reasoning	4	MS 509	Probability and Statistics	4

Courses offered in M.Tech. in Information Technology

First Semester			Second Semester		
Course Code	**Course Title**	**Cr.**	**Course Code**	**Course Title**	**Cr.**
CS 531	Object Oriented Programming and Design	5	CS 601	Design and Analysis of Algorithms	3
CS 634	Selected Topics in Computer Networks	4	IT 610	Advanced Database System	4
IT 611	Distributed Systems	3	-	Elective-II	3
-	Elective-I	3	-	Elective-III	3
-	**Open Elective -I**	3	-	**Open Elective-II**	3

Third Semester			Fourth Semester		
Course Code	**Course Title**	**Cr.**	**Course Code**	**Course Title**	**Cr.**
IT 604	Term Project-I	8	IT 605	Term Project-II	16
-	Elective-IV	3			
-	Elective-V	3			

Elective Courses					
Course Code	**Course Title**	**Cr.**	**Course Code**	**Course Title**	**Cr.**
CS 424	Formal Language and Automata	3	CS 607	Optimization Technique	3
CS 502	System Software	3	CS 610	Bioinformatics	3
CO 503	Fuzzy Logic and Neural Networks	3	CS 621	Mobile Computing	4
CO 504	Natural Language Processing	3	CS 625	Web Technology	4
CS 505	Software Engineering	4	CS 725	Knowledge Representation and Reasoning	4

CS 507	Computer Networks	4		CS 731	Data Mining in Security	4
CS 508	Database Management Systems	5		IT 503	Multimedia Systems	4
CS 509	Data Communication	4		IT 504	E-Commerce	3
CS 522	Computer Graphics	4		IT 506	Logic Programming	3
CS 523	Enterprise Resource Planning	3		IT 507	Computer Security and Cryptography	3
CS 524	Theory of Computation	3		IT 509	Data Mining and Data Warehousing	4
CS 525	Artificial Intelligence	3		IT 510	Advanced Operating Systems	4
CS 529	Embedded Systems	4		IT 517	Pattern Recognition	4
CS 532	Compiler Design	4		IT 518	Graph Theory	3
CS 538	Computational Geometry	3		IT 523	Discrete Mathematics	3
CS 602	Image Processing	3		CO 501	Network Management and Security	3
CS 606	Computer Architecture and Parallel Processing	3		CS637	Topics on Cognitive Radio and Networks	4

Additional Elective Courses (from SWAYAM MOOCs courses of UGC)						
Course Code	**Course Title**	**Cr.**		**Course Code**	**Course Title**	**Cr.**
CS 650	Introduction to Machine Learning	2		CS 652	Privacy and Security in Online Social Media	2
CS 651	AI: Search Methods for Problem Solving	3		CS 653	Introduction to Internet of Things	2

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

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 an 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.(currently under the department of Electrical Engineering since October, 2016). The department also carried out implementation of a three year diploma programme in Advanced Diploma in Healthcare Informatics and Management under the career oriented scheme of the University Grants Commission (2012-2017). In addition, the department offers Ph.D. programme in different areas including Signal and Image Processing, Bioelectronics, Biosensors, Microwave Engineering, Communication Engineering and Microelectronics.

The department is supported by:

- DST-FIST
- DeitY - MIT
- UGC-SAP (DRS-I)

Programmes offered

1. B. Tech. in Electronics and Communication Engineering
2. M.Tech. in Electronics Design and Technology
3. M.Tech. in Bioelectronics
4. Ph.D.

Faculty and Areas of Interest

Professors	
Manabendra Bhuyan,* Ph.D. (GU)	*Sensor Design, Intelligent Instrumentation, Signal Processing*
Partha Pratim Sahu,* Ph.D. (JU)	*Optical Networks and its Components, Clinical Instrumentation, Micro-fabrication*
Jiten Chandra Dutta,* Ph.D. (JU)	*Biosensors and Bio-electronics, Neuoro bioengineering,*
Satyajib Bhattacharyya,* Ph.D. (DU)-HoD	*Microwave Antennas, Absorbing Materials*
Associate Professors	

Santanu Sharma,* Ph.D. (TU)	*Semiconductor Devices, Bio electronic Devices, Vehicular Electronics, Power Electronics*
Soumik Roy,* Ph.D. (TU)	*Neuro engineering.*
Bhabesh Deka,* Ph.D. (IITG)	*Image Processing, Computer Vision, Compressive Sensing MRI, Biomedical Signal Processing*
Vijay Kumar Nath,* Ph.D. (IITG)	*Image and Video Processing*
Nayan Moni Kakoty,* Ph.D. (TU)	*Robotics, Biomedical Signal Processing*
Assistant Professors	
Riku Chutia, Ph.D. (TU)	*E-nose, Instrumentation and Signal Processing,Embedded System*
Deepika Hazarika, Ph.D. (TU)	*Image Processing*
Ratul Kumar Baruah Ph.D. (IITG)	*Nanoelectronics, VLSI, MEMS*
Biplob Mondal, Ph.D. (JU)	*VLSI and MEMS Devices*
Durlav Sonowal, Ph.D. (TU)	*Sensors, Signal Processing*
Ananya Bonjyotsna, M. Tech. (TU)	*Audio Processing*
Priyanka Kakoty, M. Tech. (TU)	*Intelligent Instrumentation*
Santanu Maity, Ph.D. (NITY)	*Semiconductor devices, Nano Technology, RF-MEMS switch and Antenna, Photo-voltaic cell*

*** Recognized Ph. D. Supervisor**

*LEGENDS: **GU**-Gauhati University, Guwahati; **JU**-Jadavpur University, Jadavpur; **DU**- University of Delhi, Delhi; **TU**-Tezpur University, Tezpur **IITG**-Indian Institute of Technology Guwahati, **AEC**-Assam Engineering College Guwahati, **NITY**– National Institute of Technology, Yupia Arunachal Pradesh, **HoD**-Head of theDepartment*

Facilities

(a) 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.

(b) Basic Electronics Laboratory: Itis 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.

(c) Design and Prototyping Laboratory: 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.

(d) M.Tech. Project Laboratory: It is equipped with anumber of computers equipped with software for computer simulation of different M.Tech. project works.

(e) Software Simulation Laboratory: It is equipped with PCs connected to a LAN server and the internet**.** There are up-to-date Circuit Simulators like PCB layout, XILINX. Experiments on Data and Computer Networks (DCN), VLSI, Modelling and Simulation (MS), Device Modelling, and Advanced Programming Language (APL) are conducted in this lab.

(f) 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.

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

(h) 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.

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

(j) 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.(**Supported by AICTE under MODROB**).

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

(l) Neuro engineering 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.

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

(n) 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 10000) to enable the development of cutting edge technologies for various applications.

o) 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, thickness measurement instrument, stero-microscope etc. 8486630432

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

- Power Electronics Laboratory (Vehicular Electronics)
- Microwave Engineering Laboratory
- Wireless Communication Engineering Laboratory
- E-nose Laboratory
- Computer Vision and Image Processing Laboratory

Research Activities

- No. of papers published in the year 2017-2018: 60
- No. of ongoing research projects: 08
- No. of current Ph. D scholars: 35

Selected Publications

1. S. Chakraborty, N. S. Bhattacharyya and S. Bhattacharyya, Effect of Co substitution on absorption properties of SrCoxFe12-xO19 hexagonal ferrites based nanocomposites in X-band, Journal of Magnetism and Magnetic Materials, 443, pp. 244-251, December 2017.

2. Lachit Dutta, Champak Talukdar, Anil Hazarika, and Manabendra Bhuyan. "A Novel Low Cost Hand-Held Tea Flavor Estimation System." IEEE Transactions on Industrial Electronics (2017), 10.1109/TIE.2017.2772184, IEEE.

3. Sumit Datta and Bhabesh Deka, "Magnetic Resonance Image Reconstruction using Fast Interpolated Compressed Sensing", *Journal of Optics*, Springer, 2017.

4. Dutta, J. C., & Thakur, H. R. (2017). Sensitivity Determination of CNT-Based ISFETs for Different High-Dielectric Materials. IEEE Sensors Letters, 1(2), 1-4. https://doi.org/10.1109/LSENS.2017.2695648

5. S. Maity, D Muchahary, P.P. Sahu, "Enhancing Responsivity and Detectevity of Si-ZnO Photodetector With Growth of Densely Packed and Aligned Hexagonal Nano rods" IEEE Transactions on Nanotechnology, 16 (6), 939-945,2017.

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

First Semester				Second Semester		
Course Code	**Course Title**	**Cr.**		**Course Code**	**Course Title**	**Cr.**
MS 101	Mathematics -I	4		MS 103	Mathematics -II	4
PH 101	Physics -I	4		PH 102	Physics -II	4
CH 101	Chemistry	4		ME 102	Engineering Mechanics	4
EL 101	Basic Electrical Engineering	4		EL 102	Basic Electronics	5
CE 101	Engineering Graphics	3		CO 101	Introductory Computing	3
ME 103	Workshop Practice	2		CO 102	Computing Laboratory	2

Humanities Elective				Science Elective		
EG101/ SO101/ BM 101	Communicative English/ Sociology/Elementary Economics	3		BT 101/ ES 103/ CH 102	Elements of Modern Biology/ Environmental Science/ Introductory Material Science	4

Third Semester				Fourth Semester		
Course Code	**Course Title**	**Cr.**		**Course Code**	**Course Title**	**Cr.**
MS 201	Mathematics-III	3		EL 205	Integrated Circuit	4
EL 201	Switching Circuits and Digital Logic	4		EL 206	Principles of Communication	4
EL 202	Electrical Technology	4		EL 207	Instrumentation	4
EL 203	Analog Electronics Device and Circuit	4		EL 208	Engineering Electromagnetic	3
EL 204	Signals and Systems	3		CO 221	Data Structures and Object Oriented Programming	4
CO 212	Computer Architecture and Organization	5		CO 222	System Software and Operating Systems	4

Fifth Semester				Sixth Semester		
Course Code	**Course Title**	**Cr.**		**Course Code**	**Course Title**	**Cr.**
EL 301	Digital Communication	4		EL 306	Communication Networks	4
EL 302	Microprocessors and Interfacing	4		EL 307	Device Modeling and Simulation	4
EL 303	Digital Signal Processing	4		EL 308	VLSI Design	4
EL 304	Control System Engineering	4		BM 322	Social Responsibility and Professional Ethics in Engineering	3
EL 305	Microwave Engineering	4		-	ECE Elective - I	3
BM 321	Fundamentals of Management	3		-	Open Elective - I*	3

Seventh Semester$				Eight Semester		
Course Code	**Course Title**	**Cr.**		**Course Code**	**Course Title**	**Cr.**
EL 401	Digital Systems Design and VHDL	4		EL 482	Project -II	12
EL 471	Industrial Summer Training #	2		-	ECE Elective - IV	3
EL 481	Project- I	6		-	Open Elective - III*	3
-	ECE Elective - II	3				
-	ECE Elective - III	3				
-	Open Elective - II*	3				

Elective Courses						
Course Code	**Course Title**	**Cr.**		**Course Code**	**Course Title**	**Cr.**
EL 421	Image Processing	3		EL 431	MEMS and Microsystems Technology	3
EL 422	Electronic Design Automation	3		EL 432	Advance Semiconductor Devices	3
EL 423	Medical Electronics	3		EL 433	Biomedical Signal Processing	3
EL 424	Fiber Optic Communication	3		EL 434	Bioneuro Engineering	3
EL 425	Mobile Communication	3		EL 435	Nanoelectronics	3
EL 426	Fuzzy Logic and Neural Networks	3		EL 436	Intelligent Instrumentation	3

EL 427	Satellite Communication Systems	3	EL 437	Wireless Communication	3
EL 428	Information and Coding Theory	3	EL 438	Digital Signal Processor	3
EL 429	Graph Theory	3	EL 439	Power Electronics	3
EL 430	Computer Vision	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.

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

First Semester			Second Semester		
Course Code	**Course Title**	**Cr.**	**Course Code**	**Course Title**	**Cr.**
EL 517	Physical and Industrial Design of Electronics Systems	4	EL 516	Design of Fine Mechanics and Power Devices	4
EL 531	Design of Digital Systems	4	EL 530	VLSI Design	4
EL521	Design and Technology of Electronic Devices	4	EL 538	Advanced Electronic Devices	3
EL537	Advanced Programming Language	4	EL540	Intelligent Instrumentation	4
	Open Elective I	3	BE 528	MEMs and Nanotechnology	3
	Elective I	4		Open Elective II	3
				Elective II	4

Third semester and Fourth Semester		
Course Code	**Course Title**	**Cr.**
EL601	M. Tech. Dissertation	24

Elective I (Any one from the following courses)			Elective II (Any one from the following courses)		
Course Code	**Course Title**	**Cr.**	**Course Code**	**Course Title**	**Cr.**

EL 533	Data Communication & Networks	4		EL 534	Modeling and Simulation	4
EL 535	Information Systems	4		EL 536	Application Software	4

Courses offered in M. Tech. in Bioelectronics

First Semester				Second Semester		
Course Code	**Course Title**	**Cr.**		**Course Code**	**Course Title**	Cr.
BE 515	Basic Bioelectronics	3		BE 524	Advanced Bioelectronic Devices	4
BE 517	Biomedical Signal Processing	4		BE 504	Neuroengineering	3
BE 519	Bioinspired Systems and Engineering	3		BE 506	Biomedical Image Processing	4
BE 509	Biomathematics	3		BE518	Bioelectronic Systems and Controls	4
BE 511	Basic Bioelectronics Laboratory	4		EL 540	Intelligent Instrumentation	4
	Open Elective I	3			Open Elective II	3
	Elective I	4			Elective – II	3

Third semester and Fourth Semester		
Course Code	**Course Title**	**Cr.**
BE 601	M. Tech. Dissertation	24

Elective I (Any one from the following courses)				Elective II (Any one from the following courses)		
Course Code	**Course Title**	**Cr.**		**Course Code**	**Course Title**	**Cr.**
BE 507	Bioinformatics	4		BE 528	MEMs and Nanotechnology	3
BE 513	Biomedical Electronics	4				

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

ELECTRICAL ENGINEERING
(Year of Establishment: 2016)

The Electrical Engineering Department was established in 2016 under the School of Engineering for offering B.Tech. programme in Electrical Engineering (this B.Tech. Programme was originally started in the year 2014 under the Department of Electronics and Communication Engineering). The prime motive of the department is to impart quality education, training and research at the undergraduate level in forefront areas of Electrical Engineering and its allied technologies. The Department currently offers B.Tech. in Electrical Engineering. This programme aims at producing engineers with sound basic and applied knowledge in electrical engineering. Department plans to expand its teaching and research infrastructure, enhance its industrial and research collaboration, and implement modern techniques for training to realize the above goal. The key areas of faculty expertise of the department include Power System Engineering, Power Electronics, Nonlinear Analysis-Theory, Methods and Applications, Control Systems, Fractional Order Chaotic Systems, Converter and Inverter Topologies, Sensor Technologies, Smart Grid Technologies and Policy Design, Distributed Generation Based System Optimization, Renewable Energy Management, Bio-electronics and Neuro Engineering.

Programme offered

1. B.Tech. in Electrical Engineering

Faculty and Areas of Interest

Professor		
1.	Jiten Chandra Dutta* Ph.D. (JU)- HoD	*Biosensors and Bioelectronics*
Assistant Professors		
1.	Rahat Mahboob, PhD (JMI)	*Sensors and Sensing Technology; Electronics Instrumentation; Wireless Sensor*
2.	Manashita Borah, M.Tech. (NITS)	*Control Systems, Non-linear Control, Chaos and Fractional Order Systems*
3.	Angshuman Sharma, M.Tech. (AEC)	*Multilevel Inverters, Vehicle-to-Grid Interconnection, Bidirectional DC-Dc Converters, Hybrid Electric Vehicles*
4.	Barnam Jyoti Saharia, M.Tech.(NITA)	*Power Electronic Converters for Renewable Energy Applications, Hybrid PV-Wind Energy System Modeling and Optimization, Fuzzy and Neural Network Applications in Power Point Tracking of PV Systems, 5Optimization in Power Electronic Converters Design, Artificial Intelligence in Renewable Energy Applications*

*** Recognized Supervisor**

LEGENDS: ***JU–*** *Jadavpur University West Bengal,* ***JMI****-Jamia Milia Islamia,* ***NITS–*** *National Institute of Technology Silchar,* ***AEC–*** *Assam Engineering*

Facilities

(a) Basic Electrical Engineering Laboratory: Laboratory experiments conducted in this lab are based on fundamentals of electrical engineering, Kirchoff's law's, Thevenin's theorem, Nortons theorem, maximum power transfer theorem, superposition theorem, calibration experiments, power factor measurement. The lab is all the necessary equipment's for successful completion of the experiments.

(b) Network Laboratory: Laboratory experiments conducted in this lab are based upon Realization of Current Source and Voltage Source, study application of Thevenin's Theorem, Norton's Theorem, Superposition Theorem, Maximum Power Transfer Theorem, the step response of RL, RC & RLC circuits., Calculation and Verification of Z, Y, ABCD parameters of a Two-port Network., Design and frequency response of Passive Filter circuit., Ladders and Bridges, Multi DC Mesh Analysis. The lab is equipped with number DMM, analog voltmeters and ammeters, DSO, CRO, Function generator and various trainer kits.

c) Measurement and Instrumentation Laboratory: Laboratory experiments conducted in this lab are based upon potentiometers, a.c. bridges, Maxwell's bridge, Anderson's bridge, Kelvin's bridge, single phase and three phase power measurements, synchronizing of loads.

(d) Electrical Machine Laboratory: This laboratory is sponsored under the AICTE-NEQIP Scheme. Laboratory experiments conducted in this lab are based upon application of dc machines, speed control of dc motors, characteristics of generators, transformer- open circuit, short circuit tests, regulation tests, Swinburne test, synchronous machine tests, and tests on three phase induction motors. The laboratory is well stocked with ammeters, voltmeters, power factor meters, wattmeters, tachometers, single phase and three phase resistive as well as mechanical loads for successful completion of the experiments.

(e) Power Systems Laboratory: Laboratory experiments conducted in this lab are based upon application of transmission line parameters evaluation, transformer testing, breakdown voltage evaluation of transformers, radial and ring distribution systems, differential relay protection, determination of xd and xq parameters of machines. The equipment's in the laboratory are protected for use and are state of the art in terms of laboratory testing and experimentation.

(f) In addition to these laboratories, the department also offers its students experience in laboratory with the assistance from Electronics and Communication Engineering Department which include Basic Electronics Laboratory, Computer Laboratory (Software), Communication Laboratory, DSP Laboratory, Image Processing Laboratory and Hardware Laboratory.

Research Activities

- Number of papers published in the year 2017-2018: 11
- Number of ongoing research projects**:** Nil
- Number of current Ph.D. scholars: Nil

Selected Publications

1. Dutta, J. and Thakur, H., Sensitivity determination of CNT based ISFETs for different high-κ dielectric materials. IEEE Sensors Letters, 1(2). 2017
2. Saharia, B.J. and Manas, M. Viability Analysis of Photovoltaic/Wind Hybrid Distributed Generation in an Isolated Community of Northeastern India, Distributed Generation & Alternative Energy Journal , 32, (1), 2017.
3. Siddiqui,A. ,Mahboob, M. Rand Tarikul, I. A Passive Wireless Tag With Digital Readout Unit for Wide Range Humidity Measurement. IEEE Transactions on Instrumentation and Measurement, vol. 66, no.5, pp. 1013-1020,. 2017
4. Borah, M., Roy, P., & Roy, B. K. Enhanced Performance in Trajectory Tracking of a Ball and Plate System using Fractional Order Controller. IETE Journal of Research, 1-11, 2017.
5. Borah, M., & Roy, B. K.An enhanced multi-wing fractional-order chaotic system with coexisting attractors and switching hybrid synchronisation with its nonautonomous counterpart.Chaos, Solitons & Fractals.vol. 102, pp 372-386, 2017.

Courses offered in B.Tech. in Electrical Engineering

First Semester				Second Semester		
Course Code	**Course Title**	**Cr.**		**Course Code**	**Course Title**	**Cr.**
MS 101	Mathematics -I	4		MS 103	Mathematics -II	4
PH 101	Physics -I	4		PH 102	Physics -II	4
CH 101	Chemistry	4		ME 102	Engineering Mechanics	4
EL 101	Basic Electrical Engineering	4		EL 102	Basic Electronics	5
CE 101	Engineering Graphics	3		CO 101	Introductory Computing	3
ME103	Workshop Practice	2		CO 102	Computing Laboratory	2
Humanities Elective				**Science Elective**		
EG101/ SO101/ BM 101	Communicative English/ Sociology/Elementary Economics	3		BT 101/ ES 101/ CH 102	Elements of Modern Biology/ Environmental Science/ Introductory Material Science	4

Third Semester				Fourth Semester		
Course Code	**Course Title**	**Cr.**		**Course Code**	**Course Title**	**Cr.**
MS 201	Mathematics-III	3		EE 203	Measurement and Instrumentation	4
EE 201	Network Theory	3		EE 204	Electrical Machines -I	3
EE 202	Network Laboratory	2		EE 205	Electrical Machines Laboratory -I	2
EL 201	Switching Circuits and Digital	4		EL 205	Integrated Circuit	4

	Logic					
EL 203	Analog Electronic Devices and Circuits	4		EL 206	Principles of Communication	4
EL 204	Signals and Systems	3		EL 208	Engineering Electromagnetic	3
CO 212	Computer Architecture and Organization	5		CO 221	Data Structures and Object Oriented Programming	4

Fifth Semester				**Sixth Semester**		
Course Code	**Course Title**	**Cr.**		**Course Code**	**Course Title**	**Cr.**
EE 301	Power Systems-I	5		EE 304	Power Systems-II	5
EE 302	Electrical Machines -II	3		EE 305	Advanced Control System Engineering	4
EE 303	Electrical Machines Laboratory -II	2		EE 306	Power Electronics and Drives	3
EL 302	Microprocessors and Interfacing	4		EE 307	Power Electronics and Drives Laboratory	2
EL 303	Digital Signal Processing	4		BM 322	Social Responsibility and Professional Ethics in Engineering	3
EL 304	Control System Engineering	4		-	EE Elective - I	3
BM 321	Fundamentals of Management	3		-	Open Elective - I*	3

Seventh Semester$				**Eight Semester**		
Course Code	**Course Title**	**Cr.**		**Course Code**	**Course Title**	**Cr.**
EE 401	Computer Aided Power System Analysis	5		EE 404	Project- II	12
EE 402	Industrial Summer Training #	2		-	EE Elective - IV	3
EE 403	Project -I	6		-	Open Elective -III*	3
-	EE Elective - II	3				
-	EE Elective - III	3				
-	Open Elective -II*	3				

Elective Courses						
Course Code	**Course Title**	**Cr.**		**Course Code**	**Course Title**	**Cr.**
EE 308	Nonconventional Energy Sources	3		EE 408	High Voltage Engineering	3
EE 309	Utilization and Conservation of Electrical Energy	3		EE 409	Industrial Drives and Control	3
EE 310	Embeded Systems	3		EE 411	Power System Interconnection and Control	3
EE 405	Industrial Automation Systems	3		EL 426	Fuzzy Logic and Neural Networks	3
EE 407	Advanced Power Electronics and Drives	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/dee

ENERGY
(Year of Establishment: 1996)

Founded in 1996, the Department of Energy has been a vibrant academic platform, engaging itself with an academic mandate to produce manpower pool in the field of energy, development of new and efficient energy technologies, and 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 through CODL) 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 teaching and research, the department also organizes training programmes, workshops and seminars in the relevant areas of energy. The Faculty of Department has successfully completed a number of international collaborative research projects, notable among them are, 1) Indo-UKIERI, 2) Indo-European Union and 3) Indo-Finland. The Department also has six on-going international collaborative research projects. Research Scholars in the Department received accolades at national and international level, 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. M.Tech. in Energy Technology
2. Ph.D.
3. Post Graduate Diploma in Renewable Energy and Energy Management (through CODL)

Faculty and Areas of Interest

Professors	
Debendra Chandra Baruah,* Ph.D. (PAU)	*Renewable Energy and Energy Management*
Dhanapati Deka,* Ph.D. (TU)-DSW	*Biofuels, Catalytic transformation of biomass to biofuel and chemical, Bioenergy and Environment*
Rupam Kataki,* Ph.D. (TU)- HoD	*Biomass and Bioenergy, Biofuels, Energy Environment interaction*
Associate Professor	
Sadhan Mahapatra, Ph.D. (IISc)	*Biomass Gasification, Climate Responsive Buildings, Decentralized Energy Options, Energy Conservation*
Assistant Professors	

Pradyumna Kumar Choudhury, Ph.D. (TU)	*Energy Conservation and Management, Integration of Renewable Energy Systems*
Biraj Kumar Kakati,* Ph.D. (IITG)	*Fuel Cell, Hydrogen Technology and Redox Flow Battery, Graphene, Nanocatalyst.*
Nabin Sarmah,* Ph.D. (HWU)	*Solar Energy, Photovoltaic, Energy Systems*
Bibha Boro, M.Tech. (TU)	*Electrical Engineering*
Vikas Verma, Ph.D. (IITR)	*Thermal Engineering, Solar Thermal Energy, Heat Transfer*

***Recognized Supervisor**

LEGENDS: ***PAU****-Punjab Agriculture University,* ***TU****-Tezpur University,* ***DSW****-Dean, Student's Welfare, ,* ***IISc.****– Indian Institute of Science Bangalore,* ***IITG****-Indian Institute of Technology Guwahati,* ***HWU****-Heriot Watt University, United Kingdom,* ***IITR****– Indian Institute of Technology Roorkee,* ***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

MHRD fellowships are available for GATE qualified candidates. NEC fellowships are available for the students from North East regions. ONGC also offers scholarship to M. Tech. students of the Department.

Research Activities

- No. of papers published in the year 2017 - 2018: 20
- No. of ongoing research projects: 09
- No of current Ph.D scholars: 23

Selected Publications

1. Baruah, D., Baruah, D.C., Hazarika, M.K. Artificial neural network based modeling of biomass gasification in fixed bed downdraft gasifiers, *Biomass and Bioenergy*, 98, 2017.
2. Gohain, M., Devi, A., and Deka, D. Musa balbisiana Colla peel as highly effective renewable heterogeneous base catalyst for biodiesel production, *Industrial Crops and Products*, 109, 2017.
3. Narzari, R., Bordoloi, Neon J., Sarma, B., Gogoi, L., Gogoi, N., Borkotoki, B. and Kataki, R. Fabrication of bio-carbons obtained from valorization of biowaste and evaluation of its physicochemical properties, *Bioresource Technology,* 242, 2017.
4. Snehesh, S., Mukunda, H S., Mahapatra and S., Dasappa, S. Fischer-Tropsch route for the conversion of biomass to liquid fuels - Technical and economic analysis, *Energy*, 130, 2017.
5. Sivasakthivel, T., Philippe, M., Murugesan, K., Verma, V. and Hu, P. Experimental thermal performance analysis of ground heat exchangers for space heating and cooling applications, *Renewable Energy*, 113, 2017.

Courses offered in M. Tech. in Energy Technology

First Semester				Second Semester		
Course Code	**Course Title**	**Cr.**		**Course Code**	**Course Title**	**Cr.**
EN 560	Foundation for Energy Engineering	2		EN 570	Energy Management and Auditing	4
EN 561	Fuel and Combustion	3		EN 571	Energy Economics and Planning	3
EN 562	Heat Transfer	3		EN 572	Energy Systems and Simulation Laboratory	3
EN 563	Solar Energy Engineering and Application	3		EN 573	Energy Study with Community Engagement	2
EN 564	Biomass Energy and Application	3		-	Elective- I	3
EN 565	Wind and Hydro Energy	3		-	Elective- II	3
EN 566	Energy Laboratory	2		-	CBCT-II	3
-	CBCT-I	3		-	CBCT -III	3

Third Semester				Fourth Semester		
Course Code	**Course Title**	**Cr.**		**Course Code**	**Course Title**	**Cr.**
EN 539	Project (Part-I)	8		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
EN 521	Nuclear Energy	3

Elective –II & III (Any two 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
EN 535	Energy Environment Interaction	3
EN 536	Materials and Devices for Energy Applications	3
EN 537	Power Generation and System Planning	3
EN 538	Hybrid Renewable Energy Systems Design	3

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

FOOD ENGINEERING AND TECHNOLOGY
(Year of Establishment: 2006)

The Department of Food Engineering and Technology (FET) was established in the year 2006 with the aim of creating skilled human resources in the engineering aspect of food processing in order to cater to the needs of the rapidly growing food processing sector. Since its inception the Department has been imparting Post Graduate education in the area of food processing and engineering. The B. Tech. programme in Food Engineering and Technology (FET), which was started in the year 2010, has the accreditation of the National Board of Accreditation (NBA) as a Tier-I programme. The Department also offers Ph. D. in Food Engineering and Technology.

The B Tech and M Tech programs of the Department are approved by the All India Council for Technical Education (AICTE). AICTE offers PG Scholarship to GATE qualified students joining the M.Tech. programme of the Department. Students from the department have been benefited from MHRD's schemes for North-East under ISHAN UDAY, ISHAN VIKAS etc. B Tech and M Tech students are finding placements in organizations such as, Tata global beverages, ITC Ltd, Himalayan Foods, Adani Wilmar, Britannia, Parle Agro, Mother Dairy etc.

The department has well developed laboratories for teaching and research created from grants received from various agencies viz., HRD grant from the Ministry of Food Processing Industries (MoFPI), Govt. of India, grant under the FIST programme from the the Department of Science and Technology (DST), grant under the UGC-SAP (DRS-I) programme of the University Grant Commission, and grant under the NEQIP Scheme of the AICTE. With its expertise in food quality testing, and with the support from the MoFPI, the Department has established one NABL accredited Food Quality Control Laboratory to facilitate the entrepreneurs and various organizations.

Research activities at the Department are supported by sponsoring agencies like UGC, MoFPI, DST, DBT, DRDO, ICAR, AICTE, MSME, ASTEC, 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.

Faculty and Areas of Interest

Professors	
Charu Lata Mahanta,* Ph.D. (CFTRI), Dean– SoE	*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)	*Food Materials Engineering, Food Industrial Engineering, Food Design.*
Brijesh Srivastava,* Ph.D. (IITKgp)- HoD	*Process and Food Engineering, Fruits and Vegetable Processing and Machineries, Non-Thermal Processing, Unit Operations in Food Engineering*
Nandan Sit,* Ph.D. (TU)	*Food Engineering, Biochemical Engineering, Oils and Fats, Food and Biotechnology*
Poonam Mishra,* Ph.D. (TU)	*Nano Composite, Fruits and Vegetable Technology, Function Food, Biosensors.*
Laxmikant S. Badwaik,* Ph.D. (TU)	*Food Packaging, Food Safety and Laws, Osmotic Dehydration*
Assistant Professors	
Dibyakanta Seth, Ph.D. (TU)	*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*
Nishant Rachayya Swami Hulle, Ph.D. (IITKgp)	*Food Process Technology, Non Thermal Processing, Product Development*
Sourav Chakraborty, M.Tech. (TU)	*Food Engineering, Food Process Simulation and Modeling*

*** Recognized Supervisor**

LEGENDS: ***CFTRI****-Central Food Technological Research Institute Mysore,* ***SoE****– School of Engineering,* ***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 equipment and is in the process of strengthening it with the state of the art facilities. Great emphasis is laid on the practical aspects for processing of foods and quality assurance. List of some major equipment available with department are as follows: HPLC, Atomic Absorption Spectrometer (AAS), GC-MS, Supercritical fluid extractor, Texture Analyser, Dynamic Rheometer, Rapid Visco Analyser, Hunter Lab Color Spectrophotometer, UV-Vis Spectrophotometer, Water activity meter, Freeze Dryer, Lyophilizer, Lab. Scale Spray Drier, Tray Drier, Drum Drier, Fluidized Bed Drier, Laboratory Pasteurizer, Canning Unit, Baking Oven, Basic Engineering Equipment in heat transfer and fluid mechanics, Hammer Mill, Ball mill, Paddy Huller, Paddy Sheller, Binocular Microscope, BOD Incubator, Rotary Vacuum Evaporator, Photoflurometer, Biohazard Safety Cabinet, Packaging Equipment, Laminar Flow, Fruit Crusher, etc.

Research Activities

- Number of papers published in the year 2017-18: 45
- Number of ongoing research projects: 10
- Number of current Ph.D. scholars: 30

Selected Publications

1. Saxena, J., Ahmad Makroo, H., & Srivastava, B. (2017) Effect of ohmic heating on Polyphenol Oxidase (PPO) inactivation and color change in sugarcane juice. Journal of Food Process Engineering, 40(3).
2. Bora, S. J., Handique, J., & Sit, N. (2017) Effect of ultrasound and enzymatic pre-treatment on yield and properties of banana juice. Ultrasonics Sonochemistry, 37, 445-451.
3. Borah, P. P., Das, P., & Badwaik, L. S. (2017) Ultrasound treated potato peel and sweet lime pomace based biopolymer film development. Ultrasonics sonochemistry, 36, 11-19.
4. Borah, P.K., Deka, S. C. and Duary, R. K. (2017) Effect of repeated cycled crystallization on digestibility and molecular structure of glutinous bora rice starch. Food Chemistry, 223, 31-39.
5. Dutta, H., Mahanta, C. L., Singh, V., Das, B. B., & Rahman, N. (2016). Physical, physicochemical and nutritional characteristics of Bhoja chaul, a traditional ready-to-eat dry heat parboiled rice product processed by an improvised soaking technique. Food chemistry, 191, 152-162.
6. Chakraborty, S, Sarma, M, Bora, J, Faisal, S and Hazarika, M K, (2016) Comparative study between ANN and master curve technique for the thin layer drying kinetic study of paddy and modeling of its critical drying temperature. Agricultural Engineering International: CIGR Journal 18 (4), 177-189.

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

First Semester			Second Semester		
Course Code	**Course Title**	**Cr.**	**Course Code**	**Course Title**	**Cr.**
MS 101	Mathematics -I	4	MS 103	Mathematics -II	4
PH 101	Physics -I	4	PH 102	Physics -II	4
CH 101	Chemistry	4	ME 102	Engineering Mechanics	4
EL 101	Basic Electrical Engineering	4	EL 102	Basic Electronics	5
CE 101	Engineering Graphics	3	CO 101	Introductory Computing	3
ME 103	Workshop Practice	2	CO 102	Computing Laboratory	2
Humanities Elective			**Science Elective**		
EG101/ SO101/ BM 101	Communicative English/ Sociology/Elementary Economics	3	BT 101/ ES 101/ CH 102	Elements of Modern Biology/ Environmental Science/ Introductory Material Science	4

Third Semester			Fourth Semester		
Course Code	**Course Title**	**Cr.**	**Course Code**	**Course Title**	**Cr.**
MS 201	Mathematics- III	3	FT 205	Food Biochemistry and Nutrition	4
FT 201	Food Chemistry	4	FT 206	Principles of Food Processing and Preservation	3
FT 202	Basic and Food Microbiology	3	FT 207	Transfer Processes in Food Engineering	4
FT 203	Fluid Mechanics	5	FT208	Mechanical Operations in Food Processing	4
FT 204	Computations in Food Processing	4	FT209	Fruits and Vegetables Process Technology	3
ME 205	Thermodynamics	4	EL 321	Instrumentation and Process Control	4

Fifth Semester			Sixth Semester		
Course Code	**Course Title**	**Cr.**	**Course Code**	**Course Title**	**Cr.**
FT 301	Instrumental Methods of Food Analysis	2	FT 307	Food Quality and Safety	3
FT 302	Thermal Operations in Food Processing	4	FT 308	Food Plant Utilities	3
FT 303	Mass Transfer Operations in Food Processing	4	FT 309	Dairy Products Technology	3
FT 304	Cereals, Pulses and Oilseeds Processing Technology	4	FT 310	Food Process Equipment Design	3
FT 305	Biochemical Engineering	3	BM 322	Social Responsibility and Professional Ethics in Engineering	3
FT 306	Recent Advances in Food Research	1	-	FT Elective- I	3
BM 321	Fundamentals of Management	3	-	Open Elective- I*	3

Seventh Semester[$]				Eight Semester		
Course Code	**Course Title**	**Cr.**		**Course Code**	**Course Title**	**Cr.**
FT 401	Food Packaging, Transportation and Storage	3		FT 482	Project- II	12
FT 402	Plant Design and Process Economics	3		-	FT Elective- IV	3
FT 471	Industrial Summer Training#	2		-	Open Elective- III*	3
FT 481	Project- I	6				
-	FT Elective- II	3				
-	FT Elective- III	3				
-	Open Elective- II*	3				

Elective Courses						
Course Code	**Course Title**	**Cr.**		**Course Code**	**Course Title**	**Cr.**
FT 421	Bakery and Confectionary Technology	3		FT 431	Food Process Design and Analysis	3
FT 422	Plantation Products and Spices Technology	3		FT 432	Food Process Automation	3
FT 423	Oils and Fats Technology	3		FT 433	Numerical Methods in Food Processing	3
FT 424	Processing Technology of Meat, Poultry and Fish	3		FT 434	Energy Conservation in Food Processing	3
FT 425	Fermented and Non Fermented Beverages	3		FT 435	Food Plant Hygiene and Sanitation	3
FT 426	Food Product Development	3		FT 436	Food Industry Waste Management	3
FT 427	Flavors Technology	3		FT 437	Industrial Safety and Hazards	3
FT 428	Specialty Foods: Nutraceuticals and Functional Foods	3		FT 438	Optimization Techniques	3
FT 429	Traditional Indian Foods	3		FT 439	Advanced Food Processing Methods	3
FT 430	Industrial Microbiology and Enzyme Technology	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.

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

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

First Semester			Second Semester		
Course Code	**Course Title**	**Cr.**	**Course Code**	**Course Title**	**Cr.**
FT 511	Research Methodology	3	FT 516	Emerging Food Processing Technologies	3
FT 512	Advanced Food Engineering	4	FT 517	Food Equipment and Plant Design	3
FT 513	Engineering Properties of Biological Materials	3	FT 518	Recent Trends in Food Product development and Packaging	3
-	Elective- I	3	FT 519	Food Process Modeling and Simulation	3
-	Elective- II	3	FT 571	Seminar	1
-	Elective -III	3	-	Elective- IV	3
-	CBCT-I (Open elective)	3	-	Elective- V	3
			-	CBCT-II (Open elective)	3

Third Semester			Fourth Semester		
Course Code	**Course Title**	**Cr.**	**Course Code**	**Course Title**	**Cr.**
FT 681	Project Seminar	12	FT 682	Project	12

Elective Courses					
Group-I			Group-II		
Course Code	**Course Title**	**Cr.**	**Course Code**	**Course Title**	**Cr.**
FT 541	Recent Trends in Plant Products Technology	3	FT 546	Powder Technology	3
FT 542	Recent Trends in Animal Products Technology	3	FT 547	Recent trends in Biochemical engineering	3
FT 543	Recent Trend in Baking and Confectionary	3	FT 548	Nano Technology in Food Applications	3
FT 544	Extrusion technology	3	FT 549	Recent Trends in Fermentation Technology	3
FT 545	Traditional Indian Food; Case Studies		FT550	Recent trend in Enzyme technology	3
			FT 551	Valorization of food byproduct	3

Group-III		
Course Code	**Course Title**	**Cr.**
FT 552	Recent trend in drying and dehydration	3
FT 553	Food microstructure and texture	3
FT 554	Novel separation process	3
FT 555	Food supply chain management case study	3

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

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 con-ducting cutting-edge research. Both the B.Tech and M. Tech (Mechanical Engineering) programmes are approved by AICTE. Moreover, B. Tech Mechanical Engineering programme is accredited by National Board of Accreditation with effect from 01/01/2016.

Programmes offered

1. B. Tech in Mechanical Engineering
2. M. Tech in Mechanical Engineering (Three Specializations)
   - 2a. M. Tech in Thermal and Fluid Engineering
   - 2b. M. Tech in Applied Mechanics
   - 2c. M. Tech in Machine Design
3. Ph.D. in Mechanical Engineering

Faculty and Areas of Interest

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

Zahnupriya Kalita, M.E. (AIT)	*Mechatronics*
Rakesh Bhadra, M.E. (BESUS)	*Manufacturing, Production Engineering*
Barnali Chowdhury, M.E. (AEC)	*Mechanical Engineering*
Seikh Mustafa Kamal, Ph.D. (IITG)	*Machine Design*
Vivek Kumar Mehta, Ph.D. (IITK)	*Robotics, Optimization: Classical and Evolutionary Algorithms, Multi-objective Optimization, Multi-modal Optimization*
Shikha Bhuyan, M. Tech. (NITS)	*Thermal Engineering*
Kalpajyoti Borah M. Tech (IITKgp)	*Aerospace Engineering, Navel Architecture (Guest Faculty)*

***Recognized Supervisor**

*LEGENDS: **IITK**-Indian Institute of Technology Kanpur, **TU**-Tezpur University, **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, NITS - National Institute of Technology ,Silchar, IITKgp– Indian Institute of Technology Kharagpur, **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, Pro-E Wildfire 3.0 version, NI Lab. View Software, COMSOL Multiphysics, MATLAB and CATIAV5. 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, CO2 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.

Engineering Mechanics

This laboratory is equipped with Bell crank lever apparatus, Cantilever beam apparatus, Combined coil and flat belt friction apparatus, Compound lever, Deflection of beam apparatus, Fly wheel, Hook's Law, Jib

crane, Law of moments apparatus, Link polygon apparatus, Parallel forces apparatus, Screw jack, Torsion apparatus, Triangle and parallelogram law of forces and Universal force table 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 micro-scope.

Thermal Science Laboratory (Refrigeration and Air Conditioning/Heat Transfer)

This laboratory is equipped with Vapour Absorption refrigeration system, Standard vapour compression refrigera-tion system, Air conditioning and Cooling tower, Concentric tube heat exchanger, Critical heat flux apparatus, double pipe heat exchanger, Drop and film condensation apparatus, Emissivity measurement apparatus, Heat transfer in natural convection, Shell and tube heat exchanger apparatus, Thermal conductivity of liquids, Heat transfer through lagged pipe, Heat pipe demonstrator, Heat transfer in forced convection, Heat transfer through composite wall, Stef-an Boltzmann apparatus, Thermal conductivity of insulating slab.

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), Variable compression ratio spark ignition engine, Diesel Engine Vehicle etc.

Kinematics Laboratory

In this laboratory, there are various types of models of different mechanisms, like shaper model, clutch model, Old-ham 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 pro-tractor, 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.

Renewable Energy Laboratory

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

Central Workshop

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

Research Activities

Number of paper published in the year 2016-2017: 42
Number of ongoing research projects: 01
Number of current Ph.D. scholars: 10

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, 2017.
2. Kalita, P., Dass, A. K., A diffusion-regulated scheme for the compressible Navier-Stokes equations using a boundary-layer sensor, *Computers & Fluids*, 2016, Vol. 29, pp. 91-100, DOI 10.1016/ j.compfluid.2016.02.001.
3. Dutta, P.P., Kumar, A. Development and Performance Study of Solar Air Heater for Solar Drying Applications, In: *Solar Drying Technology, Concept, Design, Modelling, Economics and Environment* (Springer), 579-501, 2017.

4. Deka, A., Datta, D. Geometric size optimization of annular step fin using multi-objective genetic algorithm. *Journal of Thermal Science and Engineering Applications* (ASME), 9(2), 2017.
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, 2017.

Courses offered in B.Tech. in Mechanical Engineering

First Semester				Second Semester		
Course Code	**Course Title**	**Cr**		**Course Code**	**Course Title**	**Cr**
MS 101	Mathematics -I	4		MS 103	Mathematics -II	4
PH 101	Physics -I	4		PH 102	Physics -II	4
CH 101	Chemistry	4		ME 102	Engineering Mechanics	4
EL 101	Basic Electrical Engineering	4		EL 102	Basic Electronics	5
CE 101	Engineering Graphics	3		CO 101	Introductory Computing	3
ME 103	Workshop Practice	2		CO 102	Computing Laboratory	2
Humanities Elective				**Science Elective**		
EG101/ SO101/ BM 101	Communicative English/Sociology/Elementary Economics	3		BT 101/ ES 101/ CH 102	Elements of Modern Biology/ Environmental Science/Introductory Material Science	4
Third Semester				**Fourth Semester**		
Course Code	**Course Title**	**Cr.**		**Course Code**	**Course Title**	**Cr.**
MS 201	Mathematics- III	3		ME 204	Machine Drawing	2
ME 201	Solid Mechanics	4		ME 207	Theory of Mechanisms and Machines	4
ME 202	Fluid Mechanics- I	3		ME 208	Manufacturing Technology- I	3
ME 203	Material Science	3		ME 209	Fluid Mechanics- II	3
ME 211	Basic Thermodynamics	3		ME 210	Mechanical Engineering Laboratory- II	3
ME 206	Mechanical Engineering Laboratory- I	3		ME 212	PDE and Numerical Methods	4
EL 202	Electrical Technology	4		CO 221	Data Structures and Object Oriented Programming	4

Fifth Semester			Sixth Semester		
Course Code	**Course Title**	**Cr.**	**Course Code**	**Course Title**	**Cr.**
ME 301	Dynamics and Vibration of Machinery	3	ME 306	Advanced Workshop Practice	3
ME 302	Mechanical Measurements and Instrumentation	3	ME 307	Applied Thermodynamics- II	3
ME 303	Manufacturing Technology- II	3	ME 308	Heat and Mass Transfer	4
ME 304	Applied Thermodynamics- I	3	ME 309	Systems and Control	3
ME 310	Mechanical Engineering Laboratory- III	3	ME 312	Machine Design -II	3
ME 311	Mechanical Design-I	3	BM 322	Social Responsibility and Professional Ethics in Engineering	3
BM 321	Fundamentals of Management	3	-	Open Elective- I*	3

Seventh Semester			Eighth Semester		
Course Code	**Course Title**	**Cr.**	**Course Code**	**Course Title**	**Cr.**
ME 402	Industrial Engineering and Operation Research	4	ME 482	Project- II	12
ME 471	Industrial Summer Training#	2	-	ME Elective- III	3
ME 481	Project- I	6	-	ME Elective- IV	3
-	ME Elective- I	3	-	Open Elective- III*	3
-	ME Elective- II	3			
-	Open Elective- II*	3			

Elective Courses						
Course Code	**Course Title**	**Cr.**		**Course Code**	**Course Title**	**Cr.**
ME 421	Computer Graphics and Solid Modeling	3		ME 435	Machine Tool Design	3
ME 422	Optimization Methods in Engineering	3		ME 436	Combustion Engineering	3
ME 423	Mechanical Vibration	3		ME 437	Tea Machineries	3
ME 424	Theory of Elasticity	3		ME 438	Petroleum and Drilling Technology	3
ME 425	Machine Tools and Machining	3		ME 439	Refrigeration and Air Conditioning	3
ME 426	Reliability Engineering	3		ME 440	Advanced Mechanics of Solids	3
ME 427	Productivity Improvement Techniques	3		ME 503	Mechanics of Composite Materials	4
ME 428	Finite Element Methods in Engineering	3		ME 504	Failure Analysis of Materials	3
ME 429	Gas Turbine and Compressor	3		ME 505	Advanced Dynamics	4
ME 430	Value Engineering	3		ME 506	Theory of Elasticity and Plasticity	3
ME 431	Fracture and Fatigue	3		ME 507	Theory of Plates and Shells	3
ME 432	Engineering Optimization	3		ME 508	Continuum Mechanics	3
ME 433	Experimental Stress Analysis	3		ME 521	Robotics	3
ME 434	Composite Materials	3		ME 522	Quality Engineering	3
ME 523	Non-Conventional Energy	3		ME 539	Optimization Techniques in Engineering	3
ME 524	Operations Management	3		ME 540	Evolutionary Algorithms for Optimum Design	3
ME 525	Tribology	3		ME 542	Computational Fluid Dynamics	4
ME 526	Modern Control System	3		ME 543	Compressible Flow	4
ME 527	CAD-CAM	3		ME 544	Turbulent Shear Flow	3
ME 528	Energy Conservation and Waste Heat Recovery	3		ME 545	Viscous Fluid Flow	3
ME 529	Artificial Intelligence in	3		ME 546	Fluid Transportation Systems	3

	Engineering					
ME 531	Project Management	3		ME 547	Two Phase Flow	3
ME 532	Power Plant Engineering	3		ME 601	Automobile Engineering	3
ME 533	Energy Management	3		ME 602	Computational Fluid Dynamics and Heat Transfer	3
ME 534	Mechatronics	3		ME 605	Hybrid Electric Vehicles	3
ME 535	Advanced Engineering Thermodynamics	3		ME 622	Communication Skills for Scientists and Engineers	3
ME 537	Applied Computational Methods	4		ME 701	Advance Heat Transfer	3
ME 538	Computer-Aided-Design in Engineering	4				

*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

Courses Offered in M.Tech. in Mechanical Engineering

First Semester				**Second Semester**		
Specialization: Applied Mechanics				**Specialization: Applied Mechanics**		
Course Code	**Course Title**	**Cr.**		**Course Code**	**Course Title**	**Cr.**
ME 501	Advanced Solid Mechanics	4		ME 502	Finite Element Methods	4
ME 541	Advanced Fluid Mechanics	4		ME 572	Advanced Engineering Materials	3
ME 561	Experimental Methods for Solid and Fluids	5		ME 592	Term Paper	2
-	Open Elective I	3		-	Open Elective II	3
-	Elective I	3/4		-	Elective III	3

-	Elective II	3/4		-	Elective IV	3/4
				-	Elective V	3/4

Specialization: Thermo and fluids Engineering				**Specialization: Thermo and Fluids Engineering**		
Course Code	**Course Title**	**Cr.**		**Course Code**	**Course Title**	**Cr.**
ME 535	Advanced Engineering Thermodynamics	3		ME 530	Numerical methods	4
ME 541	Advanced Fluid Mechanics	4		ME 548	Convective Heat and Mass Transfer	3
ME 562	Experimental Methods for Solid and Fluid Engineering	5		ME 593	Seminar	2
-	Open Elective I	3		-	Open Elective II	3
-	Elective I	3		-	Elective III	3
-	Elective II	3		-	Elective IV	3
				-	Elective V	3

Specialization: Machine Design				**Specialization: Machine Design**		
Course Code	**Course Title**	**Cr.**		**Course Code**	**Course Title**	**Cr.**
ME 501	Advanced Solid Mechanics	4		ME 502	Finite Element Methods	4
ME 509	Advanced Dynamics and Vibration	4		ME 510	Engineering Design Laboratory	3
ME 623	Mathematical Methods for Engineers	3		ME 592	Term Paper	2
-	Open Elective I	3		-	Open Elective II	3
-	Elective I	3*		-	Elective III	3*
-	Elective II	3*		-	Elective IV	3*

		-	Elective V	3*

Third and Fourth Semester					
Specialization: Applied Mechanics			**Specialization: Thermal and Fluid Engineering**		
Course Code	**Course Title**	**Cr.**	**Course Code**	**Course Title**	**Cr.**
ME 615	M. Tech. Thesis	12	ME 611	M. Tech. Thesis	12
ME 616	M. Tech. Thesis	12	ME 612	M. Tech. Thesis	12
Specialization: Machine Design					
ME 613	M. Tech. Thesis	12	ME 614	M. Tech. Thesis	12

Elective Courses					
Course Code	**Course Title**	**Cr.**	**Course Code**	**Course Title**	**Cr.**
ME 503	Mechanics of Composite Materials	4	ME 534	Mechatronics	3
ME 504	Failure Analysis of Materials	3	ME 535	Advanced Engineering Thermodynamics	3
ME 505	Advanced Dynamics	4	ME 537	Applied Computational Methods	4
ME 506	Theory of Elasticity and Plasticity	3	ME 538	Computer Aided Design in Engineering	4
ME 507	Theory of Plates and Shells	3	ME 539	Optimization Techniques in Engineering	3
ME 508	Continuum Mechanics	3	ME 540	Evolutionary Algorithms for Optimum Design	3
ME 521	Robotics	3	ME 542	Computational Fluid Dynamics	4
ME 522	Quality Engineering	3	ME 543	Compressible Flow	4
ME 523	Non-Conventional Energy	3	ME 544	Turbulent Shear Flow	3

ME 524	Operations Management	3	ME 545	Viscous Fluid Flow	3
ME 525	Tribology	3	ME 546	Fluid Transportation Systems	3
ME 526	Modern Control System	3	ME 547	Two Phase Flow	3
ME 527	CAD-CAM	3	ME 601	Automobile Engineering	3
ME 528	Energy Conservation and Waste Heat Recovery	3	ME 602	Computational Fluid Dynamics and Heat Transfer	3
ME 529	Artificial Intelligence in Engineering	3	ME 603	Hybrid Electric Vehicles	3
ME 531	Project Management	3	ME 622	Communication Skills for Scientists and Engineers	3
ME 532	Power Plant Engineering	3	ME 701	Advance Heat Transfer	3
ME 533	Energy Management	3			

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

BUSINESS ADMINISTRATION

(Year of Establishment:1995)

The Department of Business Administration came into existence in 1995 with the objectives of producing quality management professionals and carrying out research in the areas of Finance, Human Resources, Marketing, Production and System Management. The Department has been conducting PG Diploma in Tourism Management since 2002, which has been upgraded to Master of Tourism and Travel Management with the first batch of students admitted in the Academic Year 2016-17. 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. It was ranked 39th among all institutions offering Management Education in India by NIRF (Ministry of HRD, Govt. of India). The Department has successfully completed a research on "Microfinance and Livelihood Development" under the UGC-SAP (DRS-I) research grant.

Programmes offered

1. Master of Business Administration (MBA).
2. Master in Tourism and Travel Management (MTTM).
3. Post Graduate Diploma in Human Resource Management (Distance Mode)
4. Ph.D.

Apart from these the Department has started a short term certificate course on National Stock Exchange Certified Capital Market Professional (NCCMP) Programme from autumn semester 2017.

Faculty and Areas of Interest

Professors	
Mrinmoy Kumar Sarma,* Ph.D. (TU)	*Services Marketing, Tourism Marketing*
Chandana Goswami,* Ph.D. (GU)- Dean, SoMS	*Financial Management, General Management*
Subhrangshu Sekhar Sarkar,* Ph.D. (TU)	*Accounting, Taxation, Social Development Issues*
Debabrata Das,* Ph.D. (RGU), Director, CODL	*Financial Management, Financial Markets and Development Finance*
Chandan Goswami,* Ph.D. (TU)	*Marketing and Promotional Strategies, Consumer Behaviour, Tourism*
Papori Baruah,* Ph.D. (TU)-HoD	*Human Resource Management, Organization Behaviour, Change Management, Rural Development, NGOs*
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, Organization Behaviour*
Runumi Das, Ph.D. (GU)	*Marketing, Rural Marketing, Human Resource Management*
Mridul Dutta, Ph.D. (GU)	*Community Based Tourism, Intellectual Property Rights*
Prayash Baruah, MBA (SIU)	*Supply Chain Management, Logistics, Transportation*

*** Recognized Supervisor**

LEGENDS: ***IIMA****– Indian Institute of Management Ahmadabad,* ***TU****-Tezpur University,* ***GU****-Gauhati University,* ***SoMS****-School of Management Sciences,* ***RGU****-Rajiv Gandhi University Itanagar,* ***CODL****-Centre for Open and Distance Learning,* ***DU****-Dibrugarh University,* ***SIU****– Symbiosis International University Pune,* ***HoD****-Head of the Department*

Facilities

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

Research Activities

No. of papers published in the year 2017-2018: 08
No. of ongoing research projects: Nil
No. of current Ph.D. scholars: 19

Selected Publications

Begum, R. & Goswami, C. (2017). Problems and Prospects of Informal Enterprises : A Study of Street Vendors and Home Based Enterprises in Assam (India), *International Journal of Entrepreneurship and Development Studies (IJEDS)*, 5(1), 33-52.

1. Gurung, D.J. & Goswami, C. (2017). User Generated Content on Sikkim as an Image Formation Agent : A Content Analysis of Travel Blog, *International Journal of Hospitality & Tourism Systems*, 10(2), 47-57, (ISSN: 0947-6250)
2. Yasung, M. & Baruah, P. (2017). Professionalism and Employee Outcome : A Comparative Analysis of Three Districts in Arunachal Pradesh, *IBMRD's Journal of Management and Research*, 6 (1), Print (ISSN: 2277-7830), Online (ISSN: 2348-5922).
3. Sarkar, S. S. (2017). Base Erosion and Profit Shifting : A Challenge to Governments, *Management Accountant*, 52(6).
4. Roy, A. (2017). *Impact Assessment of Microfinance Programme of MFI's on their Clients : A Study in*

Sonitpur District of Assam in India, Germany: Lambert Academic Publishing. [ISBN: 978-3-300-03940-7].

5. Das, D. & Das, R. (2017). Barriers in Financial Inclusion : Ground Level Observations From Assam, In S. S. Sangwan and G. Deep (Eds), *Efficiency of Financial Inclusion Policies and Way Ahead*, (pp. 23-44), Chandigarh : CRRID, [ISBN : 978-81-85835-85-3].

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)				Elective-IV (Any one from the following Courses)		
Course Code	**Course Title**	**Cr.**		**Course Code**	**Course Title**	**Cr.**
BA 603	International Business Environment	3		BA 609	Project Management	3
BA 604	Operations Research	3		BA 610	Knowledge Management	3
BA 605	Business Online Basics	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)				**SEMESTER -III** (Total Credit - 6)		
Course Code	**Course Title**	**Cr.**		**Course Code**	**Course Title**	**Cr.**
BA 524	Consumer Analysis	3		BA 613	Promotional Strategies	3
BA 525	Sales and Distribution Management	3		BA 614	Brand Management	3
BA 526	Digital Marketing	3		BA 615	Retail Management	3
BA 527	Services Marketing	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)				**SEMESTER -III** (Total Credit - 6)		
Course Code	**Course Title**	**Cr.**		**Course Code**	**Course Title**	**Cr.**
BA 528	Human Resource Development	3		BA 618	Industrial Relations	3
BA 529	Labour Law	3		BA 619	Cross Culture and International HRM	3
BA 530	Social and Industrial Psychology	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)				**SEMESTER -III** (Total Credit - 6)		
Course Code	**Course Title**	**Cr.**		**Course Code**	**Course Title**	**Cr.**
BA 531	Database Management System	3		BA 621	Operating Systems	3
BA 532	Object Oriented Analysis and Design	3		BA 622	Networking and Communication	3

BA 533	Software Engineering	3		BA 623	Data Mining	3
BA 534	Web Designing	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)				**SEMESTER -III** (Total Credit - 6)		
Course Code	**Course Title**	**Cr.**		**Course Code**	**Course Title**	**Cr.**
BA 536	Quality Management	3		BA 625	Advanced Operation Research and Optimization	3
BA 537	Material Management and Inventory Control	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)				**SEMESTER -III** (Total Credit - 6)		
Course Code	**Course Title**	**Cr.**		**Course Code**	**Course Title**	**Cr.**
BA 521	Security Analysis and Investment Management	3		BA 629	Financial Engineering	3
BA 522	Financial Institutions and Financial Services	3		BA 630	Management Control System	3
BA 523	Corporate Taxation	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

Courses offered in Master of Tourism and Travel Management (M.T.T.M.)

First Semester				**Second Semester**		
Course Code	**Course Title**	**Cr.**		**Course Code**	**Course Title**	**Cr.**
TM 501	Fundamentals of Tourism	3		TM 541	Finance and Accounting for Tourism	3
TM 502	Destination Geography, History and Heritage	3		TM 542	Marketing in Tourism	3
TM 503	Fundamentals of Management	3		TM 543	Human Resource Management	3
TM 504	Tourism and Travel Industry	3		TM 544	Travel Agency and Tour Operation	3
TM511/ TM 512	Department Centric Elective -I	3		TM 561 / TM 562	Department Centric Elective -II	3
-	Open Elective- IT Base	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	Foundation of Information Technology and 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

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

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 the dynamic business environment.

Programmes Offered

1. 5-year Integrated Master of Commerce (First three years - B.Com Module and rest 2-year M.Com. Module). [This programme has option of lateral exit after successful completion of the courses of the first three years with B.Com. (Honours) degree].
2. Master of Commerce (lateral entry in the Seventh Semester of the Integrated M.Com. programme—M.Com. Module.)

Faculty and Areas of Interest

Professors	
Subhrangshu Sekhar Sarkar, Ph.D. (TU)- HoD (i/c)	Accounting, Taxation, Social Development Issues
Assistant Professors	
Reshma Tiwari, Ph.D (GU)	Accounting, Financial Inclusion and Microfinance
Rishabh Goswami, M. Com (GU)	Accounting and Finance
Farah Hussain Ph. D. (DU)	Econometrics
Manish Kumar M. Com (DU)	Banking and Finance
Guest/Visiting Faculty	
Prof. S. S. Khanka, Ph.D	Human Resource Management
CA Surendra Dugar (ICAI)	Taxation
CS Neelam Somani (ICSI)	Company Law
CA Rajkumar Nahata (ICAI)	Indirect Taxes
CA Shwetha Shetty, (ICAI)	Accounting
Mitali Tandon, MSc	Mathematics & Statistics
Anuradha Ghosh, MA	Soft Skills
Pushpa Renu Bhattacharyya, Ph.D (GU)	Descriptive and Socio-linguistic
Nurjahan Begum, Ph.D (T.U)	English literature

From the Department of Business Administration

Prof. Mrinmoy Kumar Sarma, Ph.D. (TU)	Services Marketing, Tourism Marketing
Prof. Debabrata Das, Ph.D. (RGU)	Financial Management, Financial Markets and Development Finance
Prof. Papori Baruah, Ph.D. (TU)	Human Resource Management, Organization, Behaviour, Change Management, Rural Development , NGOs.
Dr. Anjan Bhuyan Ph.D. (TU)	Economics, Rural Economics, Tourism Management and Entrepreneurship
Dr. Arup Roy, Ph. D. (TU)	Microfinance, Stock Market, Development Finance, Social Entrepreneurship.
Dr. Heera Barpujary, Ph.D. (TU)	Knowledge Management, Web Technology
Dr. Mridul Dutta, Ph.D. (GU)	Community Based Tourism, Intellectual Property Rights
Prayash Baruah, B.Tech (T.U.) MBA (Symbiosis)	Supply Chain Management, Logistics, Transportation

Facilities

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

Research Activities

No. of paper published in the year 2017-2018: 01

No. of ongoing research projects: Nil

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.
4. Tiwari,R.K. & Debnath, J. , Forensic Accounting: A Blend of Knowledge, Journal of Financial Regulation and Compliance, (Emerald), 25 (1), 2017.

Courses offered in Integrated M.Com and M.Com

First Semester		
Course Code	**Course Title**	**Cr**
IC 101	English Comprehension Skill	3
IC 106	Business Regulatory Framework-I	3
IC 107	Business Organization and Environment	4
IC 108	Micro Economics	4
IC 109	Financial Accounting – I	4

Second Semester		
Course Code	**Course Title**	**Cr**
IC 122	Principles and Practice of Management	4
IC 123	Financial Accounting – II	4
IC 124	Business Mathematics- I	4
IC 125	Macro Economics	3
ES 103	Environmental Studies	4

Third Semester		
Course Code	**Course Title**	**Cr**
IC 201	Business Regulatory Framework-II	3
IC 205	Functional Communicative Skill	3
IC 207	Inter-Personal Skills	4
IC 208	Basic Statistics	4
IC 209	Cost Accounting	4
IC 210	Corporate Accounting- I	4

Fourth Semester		
Course Code	**Course Title**	**Cr**
IC 222	Indirect Taxes	4
IC 223	Fundamentals of Insurance	4
IC 224	Banking Laws and Practice	4
IC 225	Corporate Accounting -II	4
IC 226	Business Mathematics- II	3
	Open Elective	3

Fifth Semester		
Course Code	**Course Title**	**Cr**
IC 301	Company Law	2
IC 303	Corporate Accounting-III	4
IC 304	Income Tax – Law and Practice	4
IC 307	Entrepreneurship	4
IC 308	Business Finance	4
	Open Elective	3

Sixth Semester		
Course Code	**Course Title**	**Cr**
IC 321 or IC 341	Computer and Its Application in Accounting and Taxation@ Computer and Its Application in Banking and Finance@	4
IC 327 or IC 342	Auditing and Assurance Indian Financial Market and Financial System	3
IC 323 or IC 343	Management Accounting Financial Services	4
IC 324 or IC 344	Public Finance Banking Regulatory Framework	4
IC 325 or IC 347	Tax Planning and Procedures Capital Market Operations	4
IC 326 or IC 346	Dissertation (Accounting, Taxation Area) Dissertation (Banking, Finance Area)	3

Seventh Semester (Integrated M Com) /First Semester (M Com)				Eighth Semester (Integrated M Com) /Second Semester (M Com)		
Course Code	**Course Title**	**Cr**		**Course Code**	**Course Title**	**Cr**
IC 501	Organizational Theory and Behaviour	4		IC 521	Human Resource Management	3
IC 502	Financial Statement Analysis	4		IC 522	Marketing Management	3
IC 503	Statistics for Business Decisions	4		IC 523	Managerial Economics	4
IC 504	Corporate Governance and Business Ethics	3		IC 524	Operations Research	4
IC 505	International Business	3		IC 525	Methodology for Business Research	4
					Open Elective	3

Ninth Semester (Integrated M Com) /Third Semester (M Com)				Tenth Semester (Integrated M Com) /Fourth Semester (M Com)		
Course Code	**Course Title**	**Cr**		**Course Code**	**Course Title**	**Cr**
IC 601	Strategic Management	3		IC 625	Strategic Financial Management	4
IC 602	Management Information System	4		GROUP 'A': Accounting And Taxation		
IC 605	Project Work	4		IC 621	Advanced Auditing	3
	Open Elective	3		IC 622	Strategic Cost & Management Accounting	3
GROUP 'A': Accounting And Taxation				IC 623 or IC 630	Innovations in Accounting or Project Planning and Control	3 3
IC 603	Corporate Financial Reporting	4		IC 624	Corporate Tax Management	4
IC 604	Business Valuation	3		GROUP 'B': Banking and Finance		
GROUP 'B': Banking and Finance				IC 626	Security Analysis and Portfolio Management	4
IC 606	Retail Banking	4		IC 627	International Finance	3
IC 607	Insurance Management	3		IC 628	Marketing of Financial Services	3
				IC 629 or IC 630	Credit and Risk Management or Project Planning and Control	3 3

@ Students opting for "Accounting/Taxation" are provided trainings on TALLY whereas those opting for "Banking/Finance" are trained on FINACLE.

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

CULTURAL STUDIES

(Year of Establishment: 1996)

Established in 1996, the Department of Cultural Studies is one of the few Departments in the country devoted exclusively to the academic pursuit of Cultural Studies. Cultural Studies has evolved into a vibrant interdisciplinary approach in the understanding of society, culture and expressive forms associated with human behaviour across a wide range of disciplinary engagements. India is fast emerging as an important location where methods evolved in Cultural Studies are used to interrogate disciplinary approaches in an attempt to promote an understanding of various issues like ethnicity, migration, national and nationalistic assertion, gender and society, media generated cultural forms, environment and development and emerging lifestyle patterns. The Department of Cultural Studies at Tezpur University mediates global concerns and theoretical approaches of the discipline with issues that are of local importance and promotes an understanding of the rich cultural heritage and the ingrained plural nature of the region, the folk and oral inheritance and ethnic and cultural assertions. The department is supported by UGC-SAP (DRS-II). The Department of Cultural Studies along with the Department of Foreign Languages and the Centre for Assamese Studies is the recipient of the Centre with Potential for Excellence in Particular Areas.

Programmes offered

1. M.A. in Cultural Studies
2. Ph.D.

Faculty and Areas of Interest

Professors		
1.	Sunil Kumar Dutta,* Ph.D. (VB)-HoD	*Folklore Studies, Assamese Language and Culture*
2.	Debarshi Prasad Nath,* Ph.D. (RGU)	*Gender Studies, Comparative Literature, Translation, Critical Theory*
Associate Professor		
1.	Madhurima Goswami,# Ph.D. (TU)- On Lien	*Sanskrit Poetics, Indian Classical Performing Arts*
Assistant Professors		
1.	Parasmoni Dutta,* Ph.D. (TU)	*Heritage Studies, Folklore Studies, New Museology*
2.	Juri Gogoi Konwar,* Ph.D. (DU)	*Medical Anthropology, Anthropology of Food and Costume*
3.	Jayanta Vishnu Das, Ph.D. (TU)	*Cultural Communication, Development Communication, Epistemology of Communication Studies*
4.	Mandakini Baruah, Ph.D. (TU)	*Gender Studies, Folklore Studies, Paremiology*
5.	Hashik, N.K, Ph.D. (UoH)	*Performance Studies, Community Studies, Research Methodology*

6.	Moushumi Kandali, Ph.D. (UB)	*Contemporary Visual Culture, Literary Cultures of India, Gender Studies, Translation and Creative Writing*

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

*LEGENDS: **VB**-Visva Bharati Santiniketan West Bengal, **RGU**-Rajiv Gandhi University Arunachal Pradesh, **TU**-Tezpur University, **DU**-Dibrugarh University, **UoH**-University of Hyderabad, **UB**-University of Baroda Gujarat, **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 center 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 2017-18: 05
- No. of ongoing research projects: 04
- No. of current Ph.D. scholars: 12

Selected Publications

1. Nath, Debarshi Prasad and Hazarika Parismita. Bishnuprasad Rabha as Cultural Icon of Assam: The Process of Meaning Making. Cosmopolitan Civil Societies: An Interdisciplinary Journal. Volume 9, Number 1, pp. 60 – 76. March 2017.

2. Das, Jayanta Vishnu. Protests, Resistance and Violence: The collective Performance of Everyday Images in Manipur in Performative Communication: Culture and Politics in South Asia. Pathak, Dev and Sasank Perreira (eds.). Routledge: New Delhi. 2017

3. Das, Jayanta Vishnu. The Gender Perspective of Ethnic Violence: Setting and Agenda of Peace for the Media in Melvil Pereira and Bhaswati Borgohain (eds). Role of Media in Conflict Resolution. Guwahati: North Eastern Social Research Centre. 2017

4. Kandali, Moushumi, Anis Uz Jaman & Rajib Bora (Ed),Kala Bithikar Mojiat Ejon Kavi, Saat Samudrat Sangkha Bajisene Nai (A collection of articles on poet Nilamoni Phukan). Guwahati, Panchjanya Printing and Publishing, 2017. ISBN :978-81-92178-59-2. (Book Chapter)

5. Dutta, Parasmoni. Intangible Cultural Heritage in India: Reflections on Selected Forms of Dance. In Davis, Peter & Michelle L. Stefano (eds.) Routledge Companion to Intangible Cultural Heritage, Routledge: London & New York, ISBN:978-1-138-86055-1. 2017.

Courses offered in M.A in Cultural Studies

First Semester		
Course Code	**Course Title**	**Cr.**
CT 420	Introduction to Cultural Studies	4
CT 421	Cultural Theory: Key Concepts	4
CT 422	Folklore and Culture I	3
CT 423	Exploring North East India	4
CT 424	Society and Culture	3

Second Semester		
Course Code	**Course Title**	**Cr.**
CT 425	Introduction to Popular Culture	4
CT 426	Culture and Heritage	4
CT 427	Cultural Policy	3
CT 428	Folklore & Culture II	3
CT 429	Reading Culture: Perspectives from the West	3
-	Open elective	3

Third Semester		
Course Code	**Course Title**	**Cr.**
CT 520	Digital Culture	4
CT 521	Methods, Methodology and practices	6
CT 522	Mapping the Contemporary : Reading through Visual Cultural Expressions	4
CT 523	Gender and Culture	4
CT 524	Fundamentals of Photography and Documentary Production (skill based)	4
	Open elective	3

Fourth Semester		
Course Code	**Course Title**	**Cr.**
CT 146	Dissertation	6
-	Elective –I (Any three)	9
-	Elective –II (Any two)	6

Elective Courses I (Any two from the following courses)		
First Semester		
Course Code	**Course Title**	**Cr.**
CT 526	Cultural Industries (Skill based)	3
CT 527	Reading Indian through the Cinematic lens	3
CT 528	Performance and Culture	3
CT 529	Cultural Memory	3

Elective Courses II (Any two from the following courses)		
Second Semester		
Course Code	**Course Title**	**Cr.**
CT 532	Culture for Social Change(Skill based)	3
CT 533	Contemporary Cultural Phenomena : Spectacles and Infotainment	3
CT 534	Reading Culture : Perspective from Assam	3
CT 535	Intercultural Communication (skill based)	3

CT 530	Culture, Science and Society	3		CT 536	Tapping the Transitions: Folk and Tribal Art in Contemporary time	3
CT 531	Cultural Documentation (Skill based)	3		CT 537	Cross Cultural Studies: North East India and South East Asia	3
				CT 538	Bhakti Aesthetics	3

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

EDUCATION

(Year of Establishment: 2014)

The Department of Education was established in the year 2014 under the School of Humanities and Social Sciences. The Department aims at producing prospective teachers with sound knowledge of the content, pedagogy and skills needed for the society. The department has started postgraduate and doctoral Programmes in Education from Autumn semester, 2015.

Programmes offered

1. B.Ed.
2. M.A. in Education
3. Ph. D.

Faculty and Areas of Interest

Associate Professor	
Nil Ratan Roy,* Ph.D. (AUS)-HoD	*Measurement and Evaluation in Education, Research Methodology, Educational Planning and Management, Curriculum Development.*
Assistant Professors	
Yeasmin Sultana,* Ph.D. (AUS)	*Language Education and Research Methodology*
R.D. Padmavathy, Ph.D. (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, Ph.D. (BHU)	*Biological Science, Educational Psychology, Teacher Education, Elementary Education, Special Education, Guidance and Counselling*
Pratima Pallai,* Ph.D. (LU)	*Social Science Teaching, ICT in Education, Guidance and Counselling, Measurement and Evaluation, Educational Psychology*
Mohammad Asif, M. Ed. (JMI)	*Contemporary Indian Education, Teacher Education, Educational Technology, Pedagogy of Social Science, History of Education*
Sradhanjali Pradhan, M.Ed. (UU)	*Pedagogy of Physical Science, Educational Technology and ICT in Education, Measurement and Evaluation*
Rajinder Singh, Ph.D. (PU^)	*Educational Technology, Educational Research, Special Education, ICT in Education, Language Education, Environment Education, Educational Guidance and Counselling*

***Recognized Supervisor $ Recognized Associate Supervisor**

LEGENDS: ***AUS****-Assam University Silchar,* ***PU****-Pondicherry University,* ***DAV****-Devi Ahilya Vishwavidyalaya Indore,* ***BHU****-Banaras Hindu University Varanasi,* ***LU****-Lucknow University,* ***JMI****– Jamia Millai Islamia New Delhi,* ***UU****– Utkal University Odisha ,* **PU^ -** *Panjab University,* ***HoD****-Head of the Department*

Facilities

The teaching support infrastructure includes a Psychological Laboratory and Education Technology Laboratory, Science and Mathematics resource centre, art and craft resource centre, ICT and Language Laboratory

Research Activities

- No. of paper published in the year 2017–18: 17
- No of ongoing research projects: 01
- No. of current Ph.D. scholars: 06

Selected Publications

1. Chakrawathy, S., Pallai, P. & Sultana, Y. Students' perspective of effective teaching in higher education, *Indian Journal of Psychometry and Education*, 48(2), 2017.

2. Padmavathy, R.D. Gender Equality in Education: Empower Women, *International Journal of Multidisciplinary Educational Research,* 6(7). 24-39, 2017.

3. Pallai, P., Chakrawarty, S., & Sultana, Y, Quality Life and Academic Achievement: A survey of Post Graduate Students, *Psycho-lingua*, 48(1), 2017

4. Pallai, P. and Chakrawathy, S., Interrelationship between Education and Democracy. *Psycho-Lingua*, 47(2), 2017.

5. Roy, N.R. & Lepha P.R. Soico-Cultural Trends and Education in Sikkim, *Journal of Contemporary Educational Research and Innovations*, 7(2), 68-72, 2017

6. Roy, N.R. & Lepha P.R. Education of the Lepchas: With Special Reference to Night Schools in West Bengal, *Annals of Education*, 3(2), 30-37, 2017

7. Singh, R. A study of environmental attitude of higher secondary school teachers in relation to their gender and institution type, *IDL - International Digital Library of Education & Research*, 1(2), 1-10, 2017

Courses offered in B.Ed

First Semester			Second Semester		
Course Code	**Course Title**	**Cr.**	**Course Code**	**Course Title**	**Cr.**
BD 401	Human Growth and Development	5	BD 501	Teaching Learning and Management	4
BD 402	Contemporary Indian Education	5	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-Part I/ Teaching of Mathematics -Part I/ Teaching of Biological Science- Part I	4

BD 403	Language Across the Curriculum	4		BD 509	Knowledge and Curriculum -Part I	4
BD 404	Understanding Disciplines	4		BD 510	Assessment and Evaluation of Learning	4
BD 405	Reading and Reflecting on Texts	2		BD 511	Drama and Art in Education	2
-	Open Elective- I	3		-	Open Elective- II	3

Third Semester				Fourth Semester		
Course Code	**Course Title**	**Cr.**		**Course Code**	**Course Title**	**Cr.**
BD 550/ BD 551/ BD 552/ BD 553/ BD 554/ BD 555/ BD 556	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-Part-II/ Teaching of Mathematics -Part II/ Teaching of Biological Science -Part II	4		BD 575	Gender, School and Society	3
				BD 576	Knowledge and Curriculum -Part II	4
BD 557	School Internship	20		BD 577	Creating an Inclusive School	3
				BD 578	Guidance and Counselling	3
				BD 579/ BD 580	Peace Education/ Environmental Education	3
				BD 581	Critical Understanding of ICT	4
				BD 582	Understanding the Self	2

Courses offered in M.A in Education

First Semester				Second Semester		
Course Code	**Course Title**	**Cr.**		**Course Code**	**Course Title**	**Cr.**
MA 101	Philosophy of Education	4		MA 201	Sociology of Education	4
MA 102	Psychology of Education	4		MA 202	Measurement and Evaluation in Education	4
MA 103	Methodology of Educational Research	4		MA 203	History and Contemporary Issues in Indian Education	4
MA 104	Educational Technology	4		MA 204	Education Administration, Planning and Financing	3
-	Open Elective- I	3		MA 205	Education for Special Needs Children	3
				-	Open Elective- II	3

Third Semester				Fourth Semester		
Course Code	**Course Title**	**Cr.**		**Course Code**	**Course Title**	**Cr.**
MA 301	Curriculum Studies	4		MA 401	Comparative Education: National and International Prospective	4
MA 302	Statistics in Education	4		MA 402	Principles and Techniques of Teaching	4
MA 303	Teacher Education	4		MA 403	Practical Work	4
MA 304	Educational Guidance and Counselling	4		MA 404	Dissertation	8

MA 305	Open and Distance Learning	4		-	-	-

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

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 Departmentt.

Programmes offered

1. One Year Certificate Course in Chinese
2. Integrated B.A.B.Ed. in English (English Major)
3. Integrated M.A. in English
4. M.A. in English
5. M.A. in Linguistics and Language Technology
6. M. A. in Linguistics and Endangered Language. (*Students on this programme will have the choice to exit after successful completion of the first two semesters and receive a PG Diploma in Linguistics and Endangered Languages, or continue for another two semesters for an MA in Linguistics and Endangered Languages.)*
7. Ph. D

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Faculty and Areas of Interest

Professors	
Madan Mohan Sarma,* Ph.D. (DU)	*Applied Linguistics, Literature 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)-Dean-HSS	*Indian Writing in English, British Literature, Book History*
Madhumita Barbora,* Ph.D. (TU)-HoD	*Linguistics (Syntax, Psycholinguistics), Field Linguistics, Documentation*
Gautam Kumar Borah,* Ph.D. (NTNU)	*Linguistics, Cognitive Semantics, Philosophy of Language, Literary Theory*
Associate Professors	
Debasish Mohapatra,* Ph.D. (EFLU, Hyderabad)	*Curriculum Development, Materials Production, Language Policy,*

	Multilingualism
Sravani Biswas,* Ph.D. (NEHU)	*Indian Writing in English, Postcolonial Studies, Literary Theory, British Romantic Poetry*
Hemjyoti Medhi,* Ph.D. (DU^)	*Gender and Literature, New Literatures in English, Indian Vernacular Literature*
Assistant Professors	
Rathijit Chakraborty, M.Phil. (Chinese), (JNU)	*Chinese Language and Literature*
Reetamoni Narzari, Ph.D. (TU)	*Women's Writing, Indian Writing in English, Postcolonial Literature*
Pallavi Jha, Ph.D. (UoHyd)	*Children's Literature, Popular Culture and Literature, Postcolonial Writing*
Sanjib Sahoo,* Ph.D. (TU)	*Indian Writing in English, Travel Writing, Contemporary British Literature*
Bashabi Gogoi, M. Phil. (EFLU, Shillong)	*Critical Theory, Adaptation Studies*
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, Ph.D. (GU)	*South Asian English Literature*
Amalesh Gope, Ph.D. (IITG)	*Acoustic Phonetics with special interest in Tone, Psychoacoustics, Computational Linguistics, Intonational Phonology and Language Documentation*
Sarat Kr. Doley, Ph.D. (EFLU, Shillong)	*English Language Education, Language Testing, Psychology of SLA, Social Context of SLA*
Daveirou Lanamai, M. A. (Chinese) (JNU)	*Chinese Language*
Pallavi, M. Phil. (German), (JNU)	*German Literature and Language, Concepts of Emotions and Literature, Gender and Literature. Holocaust Literature, Post-War Literature*

*** Recognized Supervisor $ Recognized Associate Supervisor**

LEGENDS: ***DU****-Dibrugarh University,* ***UU****-Utkal University Odisha,* ***GU****-Gauhati University,* ***HSS****– Humanities and Social Sciences,* ***TU****-Tezpur University,* ***NTNU****-Norweign University of Science and Technology Norway,* ***EFLU****- English and Foreign Language University,* ***NEHU****- North Eastern Hill University Shillong* ***DU^****-Delhi University, ,* ***JNU****- Jawaharlal Nehru University New Delhi,* ***UoHyd****-University of Hyderabad ,* ***IITG****– Indian Institute of Technology Guwahati,* ***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.

Smart Class Room

The Department has four smart classrooms for augmented teaching learning facilities.

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 2017-2018: 15
- No. of ongoing research projects : 01
- No. of current Ph.D. scholars: 33

Selected Publications

1. Daimari Esther. (2017). "Scarred and Ruined Landscapes in Romesh Gunesekera's *Heaven's Edge*." Assonance: A Journal of Russian and Comparative Literary Studies, Vol- 17, pp- 144-154, ISSN: 2394-7853.

2. Nath A.K. (2017). "Ferdinand de Saussure aru Xongjutibad (Ferdinand de Saussure and Structuralism)" in Special Volume of Assam Sahitya Sabha, ed. Padun, N. Sibsagar session.

3. Sarma, M. M. (2017). "Biswasahityar Dharana aru Sahityat Biswajanin Dharana (World Literature and the Notion of Universals in Literature)" in D. P. Nath ed. *Tulanamulak Sahitya: Patabhumikat Asam* (Comparative Literature in the Backdrop of Assam). Purbanchal Prakash, Guwahati, 66-74, ISBN: 978-81-7213-312-2.

4. Sarangthem, B. and Longmailai, M. (2017). "Taboos prevailing in conservative Manipuri and Dimasa Society" In M. Longmailai (Ed.) Studies on Dimasa History, Language and Culture, Volume 1, DYF Selected Papers, DVS Publishers, Guwahati, ISBN: 978-93-85839-08-5. Pp. 158-169.
5. Dhanapati Shougrakpam, 2017, Reduplicated Structure in Manipuri, Journal of Humanities and Social Sciences (IOSR-JHSS) Volume 21, Issue 6,Ver. X. e-ISSN: 2279-0837, P-ISSN: 2279-0845.

Courses offered in One Year Certificate Course in Chinese

First Semester				Second Semester		
Course Code	**Course Title**	**Cr.**		**Course Code**	**Course Title**	**Cr.**
CL 101	Reading Chinese Text -I	3		CL 102	Reading Chinese Text -II	3
CL 103	Comprehension and Translation	3		CL 104	Composition and Translation	3
CL 105	Introduction to China -I	3		CL 106	Introduction to China-II	3
CL 107	Chinese Oral Skills -I	3		CL 108	Chinese Oral Skills-II	3

Courses offered in Integrated B.A.B.Ed. (English Major)

First Semester				Second Semester		
Course Code	**Course Title**	**Cr.**		**Course Code**	**Course Title**	**Cr.**
EG111	Reading Literature	4		ED107	Education and Development	3
ED105	Basic in Computer Application	3		NS106	National Service Scheme/NCC	2
ED106	Education: An Evolutionary Perspective	3		AS102/ EG109	MIL II/ Alternative English II	3
AS101/ EG106	MIL I/Alternative English I	3		EC102/ HS102/ SO103/ GE102	Economics II / Sociology II History II / Geography II (Any two of the courses)	2+2
EC101/ HS101/ SO102/ GE101	Economics I / Sociology I/ History I / Geography I (Any two of the courses)	2+ 2		EG113	History of English Literature	4
EG112	English for Communication	3		EG114	English Poetry I: Chaucer to Dryden	3

Third Semester				Fourth Semester		
Course Code	**Course Title**	**Cr.**		**Course Code**	**Course Title**	**Cr.**
ED 202	Learner and Learning	3		ED203	Contemporary Issues in Education	3
ED 205	Environmental Education	3		ED204	Assessment and Evaluation	3
AS 201/ EG 209	MIL III/Alternative English III	2		AS202/ EG211	MIL/Alt. English IV	2
EC 201 / HS 201/ SO201/ GE 201	Economics III / Sociology III/ History III / Geography III (Any two of the courses)	2+ 2		EC202 / HS202/ SO202/ GE202	Economics IV /Sociology IV History IV / Geography IV (Any two of the courses)	2+2
EG211	British Drama I: Beginning to Shakespeare	4		EG214	Literary Criticism-I	4
EG212	English Fiction I	3		EG215	Drama II: Jacobean to Eighteenth Century	4
-	CBCT - I	3		-	CBCT - II	3

Fifth Semester		
Course Code	**Course Title**	**Cr.**
ED301	Teaching: Approaches and Strategies	3
ED302	Classroom Organization and Management	3
EG213	English Poetry II: Pope to the Romantics	4
EG311	Poetry III: Victorian to Modern	4
EG314	Phonetics of English and ELT	4
-	CBCT – III	3

Sixth Semester		
Course Code	**Course Title**	**Cr.**
ED303	School Education in North East India	2
ED304/ ED305	Pedagogy A: Lang. I(Assamese)/ Pedagogy A: Lang. I (English)	3
ED306	Pedagogy B: Social Science I	3
EG216	Fiction II: Victorian to Modern	4
EG315	Literary Criticism-II	4
EG316	Introduction to Postcolonial Literature	4
-	CBCT - IV	3

Seventh Semester		
Course Code	**Course Title**	**Cr.**
ED401/ ED402	Pedagogy A: Lang. -II (Assamese) Pedagogy A: Lang. -II (English)	3
ED403	Pedagogy B: Social Science- II	3
ED404	Initial School Experiences/ School Internship-I (Four Weeks)	3
EG312	Non-Fictional Prose	4
EG313	Drama III: Shaw to Beckett	4
-	CBCT- V	3

Eighth Semester		
Course Code	**Course Title**	**Cr.**
ED405	School Internship-II (16 Weeks)	12
EG317	Introduction to Children's Literature	3
EG318	Introduction to South Asian Writing	3
-	CBCT- VI	3

Courses offered in Integrated M. A. in English

First Semester		
Course Code	**Course Title**	**Cr.**
EG111	Reading Literature	4
EG112	English for Communication	3
CS101	Basics in Computer Application	3
MIL (ANY ONE)		
AS101	MIL Assamese: Poetry (Early and Modern)	3
HN101	Madhyakalin aur Adhunik Kabya (in Hindi)	3
EG106	Alternative English -I	3
OPTIONAL COURSES (ANY TWO)		
SO102	Introduction to Sociology	2

Second Semester		
Course Code	**Course Title**	**Cr.**
EG113	History of English Literature	4
EG114	English Poetry I: Chaucer to Dryden	3
ES102	Elements of Environmental Science	3
NS102	NSS/NCC	2
MIL (ANY ONE)		
AS102	Assamese : Drama	3
HN102	Kahani aur Upanyas (in Hindi)	3
EG109	Alternative English-II	3
OPTIONAL COURSES (ANY TWO)		
SO103	Introduction to Sociological Thought	2

CT161	Basic Concepts in Cultural Studies -I	2		CT162	Introduction to Folklore Studies	2
MC101	Introduction to Communication	2		MC202	Journalism	2

Third Semester				Fourth Semester		
Course Code	**Course Title**	**Cr.**		**Course Code**	**Course Title**	**Cr.**
EG211	British Drama I: Beginning to Shakespeare	4		EG214	Literary Criticism-I	4
EG212	English Fiction-I	3		EG215	Drama-II: Jacobean to Eighteenth Century	4
EG213	English Poetry-II: Pope to Romantics	4		EG216	Fiction-II: Victorian to Modern	4
	CBCT-I	3			CBCT-II	3
MIL (ANY ONE)				**MIL (ANY ONE)**		
AS201	MIL (Assamese): Short Story and Novel	2		AS202	MIL (Assamese) Essay, Structure of Assamese	2
EG209	Alternative English -III	2		EG211	Alternative English -IV	2
HN201	Natak Aur Ekanki(Hindi)	2		HN202	Nibandh Aur Hindi Bhasa Ki Bhasik Sangrachana	2
OPTIONAL COURSES (ANY TWO)				**OPTIONAL COURSES (ANY TWO)**		
SO201	Society in India	2		SO202	Social Research Method	2
CT163	Basic Concepts in Cultural Studies - II	2		CT164	Cultural Studies: Its Development and Trends	2
MC201	Advertising and Public Relations	2		MC202	Electronic Media	2

Fifth Semester				Sixth Semester		
Course Code	**Course Title**	**Cr.**		**Course Code**	**Course Title**	**Cr.**
EG311	Poetry-III: Victorian to Modern	4		EG315	Literary Criticism-II	4
EG312	Non-Fictional Prose	4		EG316	Introduction to Postcolonial Literature	4
EG313	Drama-III: Shaw to Beckett	4		EG317	Introduction to Children's Literature	3
EG314	Phonetics of English and ELT	4		EG318	Introduction to South Asian Writing	3
	CBCT-III	3			CBCT-IV	3

Seventh Semester				Eighth Semester		
Course Code	**Course Title**	**Cr.**		**Course Code**	**Course Title**	**Cr.**
EG451	Literary and Critical Theory-I	4		EG455	Language and Language Education	4
EG452	English Literature from Chaucer to Marlowe	4		EG456	Puritan to Eighteenth Century Literature (Poetry and Drama)	4
EG453	Shakespearean Drama	4		EG457	Romantic Poetry and Prose	4
EG454	Fiction-I (Early to Jane)	4		EG458	Fiction-II (Nineteenth Century)	4
-	CBCT-I	3		-	CBCT-II	3

Ninth Semester				Tenth Semester		
Course Code	**Course Title**	**Cr.**		**Course Code**	**Course Title**	**Cr.**
EG501	Literary and Critical Theory -II	4		EG504	Modern Poetry	4
EG502	Modern Drama	4		EG505	Modern Prose	4

EG503	Modern Fiction	4		EG506	Postcolonial Literatures in English	4
-	Elective- I	4		-	Elective- II	4
-	CBCT-III	3		-	CBCT-IV	3

Elective –I (Any One from the following Courses)				**Elective –II (Any One from the following Courses)**		
Course Code	**Course Title**	**Cr.**		**Course Code**	**Course Title**	**Cr.**
EG507	Translation-I	4		EG508	Translation-II	4
EG509	Gender and Literature-I	4		EG510	Gender and Literature-II	4
EG511	American Literature-I	4		EG512	American Literature-II	4
EG513	Indian Writing in English-I	4		EG514	Indian Writing in English-II	4
EG515	ELT-I	4		EG516	ELT-II	4

Courses offered in M. A. in English

First Semester				**Second Semester**		
Course Code	**Course Title**	**Cr.**		**Course Code**	**Course Title**	**Cr.**
EG451	Literary and Critical Theory-I	4		EG455	Language and Language Education	4
EG452	English Literature from Chaucer to Marlowe	4		EG456	Puritan to Eighteenth Century Literature (Poetry and Drama)	4
EG453	Shakespearean Drama	4		EG457	Romantic Poetry and Prose	4
EG454	Fiction-I (Early to Jane)	4		EG458	Fiction-II (Nineteenth Century)	4
-	CBCT-I	3		-	CBCT-II	3

Third Semester				**Fourth Semester**		
Course Code	**Course Title**	**Cr.**		**Course Code**	**Course Title**	**Cr.**
EG501	Literary and Critical Theory -II	4		EG504	Modern Poetry	4
EG502	Modern Drama	4		EG505	Modern Prose	4
EG503	Modern Fiction	4		EG506	Postcolonial Literatures in English	4
-	Elective- I	4		-	Elective- II	4
-	CBCT-III	3		-	CBCT-IV	3

Elective –I (Any One from the following Courses)				**Elective –II (Any One from the following Courses)**		
Course Code	**Course Title**	**Cr.**		**Course Code**	**Course Title**	**Cr.**
EG507	Translation-I	4		EG508	Translation-II	4
EG509	Gender and Literature-I	4		EG510	Gender and Literature-II	4
EG511	American Literature-I	4		EG512	American Literature-II	4
EG513	Indian Writing in English-I	4		EG514	Indian Writing in English-II	4
EG515	ELT-I	4		EG516	ELT-II	4

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

First Semester				**Second Semester**		
Course Code	**Course Title**	**Cr.**		**Course Code**	**Course Title**	**Cr.**
LG421	Philosophy of Linguistics	3		LG426	Phonetics and Phonology -II	3

LG422	Phonetics and Phonology -I	3		LG427	Syntax	3
LG423	Morphology	3		LG428	Semantics	3
LG424	Basic Syntax	4		LG429	Field Linguistics	3
LG425	Introduction to Computational Linguistics	3		LG430	Cognitive Linguistics	4
	CBCT-I	3		-	CBCT-II	3

Third Semester				Fourth Semester		
Course Code	**Course Title**	**Cr.**		**Course Code**	**Course Title**	**Cr.**
LG501	Language Typology and Language Universals	4		LG509	Historical Linguistics	4
LG502	Sociolinguistics	4		LG510	Advanced Computational Linguistics	4
LG503	Natural Language processing	4		LG511	Research Methodology	4
-	Elective- I	4		-	Elective- II	4
-	CBCT-III	3		-	CBCT-IV	3

Elective -I (Any One from the following Courses)				Elective -II (Any One from the following Courses)		
Course Code	**Course Title**	**Cr.**		**Course Code**	**Course Title**	**Cr.**
LG504	Advanced Phonology	4		LG512	Minimalist Syntax	4
LG505	Advanced Cognitive Linguistics -I	4		LG513	Advanced Cognitive Linguistics-II	4
LG506	Generative Syntax	4		LG514	Advanced Field Linguistics (TBL)	4
LG507	Lexicography	4		LG515	Experimental Phonology	4
LG508	Acoustic Phonetics: Instrumental Techniques and Data Analysis	4		LG516	Formal Semantics	4

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

First Semester				Second Semester		
Course Code	**Course Title**	**Cr.**		**Course Code**	**Course Title**	**Cr.**
LE401	Phonetics and Phonology	4		LE402	Syntax	4
LE403	Basic Morphology	4		LE404	Linguistic Theories	4
LE405	Basic Semantics and Pragmatics	4		LE406	Field Linguistics and Archiving	4
LE407	Basic Syntax	4		LE408	Language Endangerment and Revitalization	4
	CBCT-I	3		-	CBCT-II	3

Third Semester				Fourth Semester		
Course Code	**Course Title**	**Cr.**		**Course Code**	**Course Title**	**Cr.**
LE501	Sociolinguistics	4		LE502	Research Methodology	4
LE503	Language Typology and Language Universals	4		LE504	Historical Linguistics	4
LE505	Structure of Indian Languages	4		LE506	Analysis of Endangered Languages	4
-	Elective- I	4		-	Elective- II	4
-	CBCT-III	3		-	CBCT-IV	3

Elective -I (Any One from the following Courses)				Elective -II (Any One from the following Courses)		
Course Code	**Course Title**	**Cr.**		**Course Code**	**Course Title**	**Cr.**
LE507	Lexicography	4		LE508	Developing Writing System	4
LE509	Multilingualism and Language Policy	4		LE510	Ethnolinguistics and Language Endangerment	4
LE511	Language Documentation and Description	4		LE512	Advanced Field Linguistics and Archiving	4
LE513	Acoustic Phonetics: Instrumental Techniques and Data Analysis	4		LE514	Experimental Phonology	4
LE515	Generative Syntax	4		LE516	Minimalist Syntax	4
LE517	Advanced Cognitive Linguistics-I	4		LE518	Formal Semantics	4
				LE520	Advanced Cognitive Linguistics-II	4

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

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. Certificate Course in Official Hindi
2. Post Graduate Diploma in Translation (Hindi)
3. M.A. in Hindi
4. Ph.D.

Faculty and Areas of Interest

Professor		
1.	Ananta Kumar Nath,* Ph.D. (MU)- HoD	*Medieval Poetry, Folkloristic, Comparative Literature*
Associate Professor		
1.	Suryakanta Tripathi,* Ph.D. (BHU)	*Applied Linguistics, Indian Poetics and Folkloristic*
Assistant Professors		
1.	Anushabda,* Ph.D. (DU)	*Poetry, Poetics, Media and Linguistics*
2.	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.

Selected Publications:

1.Nath, A.K., Yogbeej (Translated), Nath Sanskritik and Research Centre : 2015, Guwahati

2.Nath, A.K., Sandesh Rasak (in Assamese) Publishers name- Bandhav- Panbazar, Guwahati, year-2013

3.Tripathi, S. Ganesh Chauth (Book), Vishwavidyalay Prakashan, Varanasi

4.Anju Lata, Prarambhik Hindi Kahaniyan Aur Samajik Parivartan, Published at 'Aroh' 2013

5. Anushabda, Anushabda, : Hindi: Pratrakarita: Rupak Banam Mithak, Vani Prakashan, Delhi- 2014

Courses offered in PG Diploma in Translation (Hindi)

First Semester				Second Semester		
Course Code	**Course Title**	**Cr.**		**Course Code**	**Course Title**	**Cr.**
HN 411	Prayojanmulak Hindi, Bhasha Prayukti Aur Anuvad	4		HN 421	Anuvad Ka Vyavaharik Paksh	4
HN 412	Hindi Bhasha Ki Sanvaidhanik Sthiti Aur Anuvad	4		HN 422	Janasansar Madhyam Aur Anuvad	4
HN 413	Anuvad Vigyan Aur Uska Sidhanta	4		HN 423	Paribhashik Sabdavalee, Kosh Vigyan Aur Anuvad	4
HN414	Karyalayee Hindi Aur Anuvad	4		HN 424	Pariyojana Karya	4

Course offered in M.A. in Hindi

First Semester				Second Semester		
Course Code	**Course Title**	**Cr.**		**Course Code**	**Course Title**	**Cr.**
HN 401	आदिकालीन एवं निर्गुण काव्य	3		HN 405	सगुण भक्ति एवं रीति काव्य	3
HN 402	छायावादी काव्य	3		HN 406	छायावादोत्तर काव्य	3
HN 403	हिंदी साहित्य का इतिहास : आदिकाल और मध्यकाल	3		HN 407	हिंदी साहित्य का इतिहास : आधुनिक काल	3
HN 404	भारतीय काव्यशास्त्र एवं आलोचना	3		HN 408	हिंदी भाषा एवं लिपि	3
-	CBCT	3		-	CBCT	3

Third Semester				Fourth Semester (Optional –I) प्रयोजनमूलक हिंदी		
Course Code	**Course Title**	**Cr.**		**Course Code**	**Course Title**	**Cr.**
HN 509	कथा साहित्य : उपन्यास एवं कहानी	3		HN 513	राजभाषा हिंदी : संवैधानिक स्थिति एवं उसका अनुप्रयोगात्मक पक्ष	3
HN 510	हिंदी नाटक और निबंध	3		HN 514	हिंदी पत्रकारिता और जनसंचार	3
HN 511	सामान्य भाषा विज्ञान	3		HN 515	अनुवाद विज्ञान : सिद्धांत एवं अनुप्रयोग	3
HN 512	पाश्चात्य समीक्षा एवं शोधप्रविधि	3		HN 516	लघु शोध-प्रबंध / परियोजनाकार्य	6
-	CBCT	3		-	CBCT	3

Fourth Semester (Optional –II) आधुनिक हिंदी साहित्य				Fourth Semester (Optional –III) अनुप्रयुक्त भाषा विज्ञान		
Course Code	**Course Title**	**Cr.**		**Course Code**	**Course Title**	**Cr.**
HN 517	प्रेमचंद	3		HN 521	भाषा-शिक्षण	3
HN 518	जयशंकर प्रसाद	3		HN 522	शैली विज्ञान	3
HN 519	सूर्यकांत त्रिपाठी निराला	3		HN 523	समाज भाषाविज्ञान	3
HN 520	लघु शोध-प्रबंध / परियोजनाकार्य	6		HN 524	लघु शोध-प्रबंध / परियोजनाकार्य	6
-	CBCT	3		-	CBCT	3

Fourth Semester (Optional –IV) तुलनात्मक साहित्य		
Course	**Course Title**	**Cr.**

Code		
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

LAW

(Year of Establishment: 2016)

Tezpur University has established the Department of Law in the session 2016-17 with the objective of making it a vibrant centre of legal education, particularly in the North-East India. Four faculties have already joined the Department. Initially the Two- Year LL.M. Programme will be started from the session 2018-19. The LL.M. programme has been designed in such a way that the students are exposed not only to the theoretical aspects but also to pedagogical and research aspects of socio-legal relevance. It is proposed to start subsequently the Five-Year B.A.LL.B.(Hons.), P.G. Diploma in Law and Ph.D. Programmes.

Programmes offered

Two-Year Master of Laws (LL.M.) with the following specializations:

1. Criminology and Criminal Law
2. Human Rights, International Humanitarian Law and Law Relating to Migrants

Faculty and Areas of Interest

Professors	
Bhaskar Kumar Chakravarty Ph.D. (GU)-HoD	*Constitutional Law, Administrative Law, Human Rights, Family Law.*
Assistant Professors	
Angel Habamon Syiem, LL.M (SU)	*Human rights, International Law and Tribal issues*
Madhumita Acharjee, LL.M (DU)	*Criminal Law,* Criminology, Juvenile Justice, Rights of elderly persons
Debajit Kumar Sarmah, LL.M (AUS)	*Criminology and Criminal Law*

*LEGENDS:: **GU**-Gauhati University, **SU**-Symbiosis University Pune, **DU**-Dibrugarh University, AUS-Assam University Silchar, HoD- Head of the Department*

Courses offered in Master of Law

First Semester				Second Semester		
Course Code	**Course Title**	**Cr.**		**Course Code**	**Course Title**	**Cr.**
LW 401	Indian Constitutional Law and Emerging Challenges	4		LW 420	Judicial Process	4
LW 402	Research Methodology	4		-	ELECTIVE FROM GROUP A-1 or A-2	4
	ELECTIVE FROM GROUP A-1 or A-2			LW 421 LW 422	General Principles of Criminal Law OR International Human Rights Law	4
LW 403 LW 404	Criminology, Penology and Victimology OR Human Rights Jurisprudence	4		LW 423 LW 424	Law Relating to Cyber Crime OR Protection and Enforcement of Human Rights	4
LW 405	Jurisprudence	3		LW 425	Research Project- II	4
LW 406	Research Project- I	4		-	Open Elective (to be chosen from other departments)	3

Third Semester				Fourth Semester		
Course Code	**Course Title**	**Cr.**		**Course Code**	**Course Title**	**Cr.**
	ELECTIVE FROM GROUP B-1 OR B-2			LW 520	Law and Social Transformation	4
LW 501 LW 502	Correctional Laws and Administration in India OR International Humanitarian Law	4		LW 521	Pedagogy in Law	4
LW 503 LW 504	Socio Economic Offences OR Law Relating to Crimes Against Humanity	4		LW 522	Dissertation & Viva-Voce	6 2
LW 505 LW 506	Comparative criminal procedure OR International Migration Law	4				
LW 507	Research Project- III	4				
-	Open Elective (to be chosen from other departments)	3				

MASS COMMUNICATION AND JOURNALISM

(Year of Establishment: 2001)

The Department was established in 2001 primarily for teaching Media and Communication studies. Over the years it has grown as a nodal centre for teaching, training and research in Media Studies with national and international collaborations. An important feather in the cap of the Department is that it has achieved the top position among Indian universities in the Times Higher Education Asia University Ranking 2018 declared in February, 2018 in the Communication & Media Studies category. It is based on an assessment of 13 performance indicators. The Department, while focusing on the comprehensive MA in Mass Communication and Journalism Programme, has started offering a specialized programme in Communication for Development since 2016. The thrust areas of the Department are - Community Communication and Mass Communication with a mission to impart quality training through innovative mix of classroom and field-based pedagogy. Our students regularly produce laboratory journals, audio programmes, web designs, corporate videos, TV news bulletins, and documentary films. They also develop alternative and community media productions like puppet shows and street plays as part of their academic curriculum.

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

Professors		
1.	Sunil Kanta Behera, Ph.D. (BU) Professor of Eminence	*Communication Theory and Research, Gender and Media*
2.	Abhijit Bora,* Ph.D. (GU) - HoD	*Print Journalism, Community Radio, Specialized Reporting, Science Communication, Media Literacy*
Associate Professors		
1.	Perumal Anbarasan,* Ph.D. (JNU)	*Media Studies, Cultural and Subaltern Studies, International Communication, Film Studies*
2.	Joya Chakraborty,* Ph.D. (UoH)	*ICT for Development, Communication for Social Change, Women and Media, Alternative and Community Media*
3.	Uttam Kumar Pegu,* Ph.D. (JMI)	*ICT Implications on Society, Science Communication, Film Studies, Media Analysis*

Assistant Professors		
1.	Anjuman Borah, Ph.D. (TU)	*Development Communication, Television and Traditional Media*
2.	Perosh Jimmy Daimari, Ph.D. (TU)	*Film Studies, Development Communication*
3.	Kapou Malakar, M.A. (JMI)	*New Media for Development, Multimedia Journalism, Political Communication, Online Journalism, Media Studies, Film Studies*
4.	Manoj Deori, M.A. (TU)	*Online Journalism, Multimedia Productions, Media and Disaster Management*
5.	Junali Deka Ph.D. (AUS)	*Cultural Studies, Visual Communication, New Media and Society*

***Recognized Supervisor**

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

Facilities

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

Research Activities

- Number of papers published in the year 2017-18: 7
- Number of ongoing research projects: 01
- Number of current Ph.D. scholars: 15

Selected Publications

1. Bora, A. (2017) 'Radio- The evergreen medium'. Radio and Journalism. Vartika Nanda (Ed). P (143-156). Kanishka Publisher. ISBN no 9788184577983

2. Chakraborty, J. (2016). 'Information and Communication Technologies for development: An overview of Development theories'. The Communicator. Vol: 3 (Oct-Dec) pp. 63-86. IIMC New Delhi. ISSN 0588-8093.

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

First Semester			Second Semester		
Course Code	**Course Title**	**Cr.**	**Course Code**	**Course Title**	**Cr.**
MC 526	Communication Theories	3	MC 532	Writing for media	3
MC 527	Principles of Journalism	3	MC 533	Photo Journalism	3
MC 528	Advertising	3	MC 534	Broadcast Media : Television	3
MC 529	Broadcast media: Radio	3	MC 535	PR & Corporate communication	3
MC 530	New Media: Evolution, principles & theory	3		Elective I	3
MC 531	Media in Northeast India	3		Open Elective	3

Third Semester			Fourth Semester		
Course Code	**Course Title**	**Cr.**	**Course Code**	**Course Title**	**Cr.**
MC 541	Communication research methods	3	MC 549	Understanding cinema	3
MC 542	Communication for social change and development	3	MC 550	Science Communication	3
MC 543	Media law and ethics	3	MC 551	Political and International Communication	3
MC 544	Internship	3	MC 552	Communication research project	5
-	Elective II	3		Elective III	4
	Open Elective	3			

Electives I (One to be chosen)				Electives II (One to be chosen)		
Course Code	**Course Title**	**Cr.**		**Course Code**	**Course Title**	**Cr.**

MC 536	Media Management	3		MC 536	Media Management	3
MC 537	Graphic design for media	3		MC 537	Graphic design for media	3
MC 538	Health Communication	3		MC 538	Health Communication	3
MC 539	Film appreciation and criticism	3		MC 539	Film appreciation and criticism	3
MC 540	Digital Media Literacy	3				

Electives III (One to be chosen)		
Course Code	**Course Title**	**Cr.**
MC 553	New media production	4
MC 554	Documentary production	4
MC 555	Community radio	4

MA MCJ students shall opt for Open Electives in Semester II and III only.

Courses offered in M.A. in Communication for Development

First Semester				**Second Semester**		
Course Code	**Course Title**	**Cr.**		**Course Code**	**Course Title**	**Cr.**
DC 400	Theories of Communication and Media	4		DC 404	Communication Research Methods	4
DC 401	Development Journalism	5		DC 405	Radio for Development	5

DC 402	Theories of Communication for Development	4	DC 406	Participatory Video Production	5
DC 403	Issues in Development	4	DC 407	Information and Communication Technology for Development	4
-	CBCT	3	-	CBCT	3

Third Semester			**Fourth Semester**		
Course Code	**Course Title**	**Cr.**	**Course Code**	**Course Title**	**Cr.**
DC 408	Campaign Planning	5	DC 415	Project *	12
DC 409	Folk and Community Media	5	** Students would be attached to different governmental/non-governmental development agencies to carry out a semester long communication campaign.*		
DC 410	Message Design and Evaluation	4			
DC 411	Internship	4			
-	CBCT	3			

Elective Courses		
Course Code	**Course Title**	**Cr.**
DC 412	NGO Participation and Management	5
DC 413	Human Rights and Media	5
DC 414	Northeast India: Demography, Culture, and Identity	4

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

SOCIAL WORK
(Year of Establishment: 2014)

The Department of Social Work was started in 2014 with the objective to create a just and equal society that ensures freedom from all forms of oppression and exploitation. It aims 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. The department also envisages providing human resources in the fields of social welfare, development, and allied areas through imparting education and training in Professional Social Work. This will enable the students to develop knowledge, skills, attitudes and values appropriate to the practices of social work profession, besides developing critical thinking and the ability to apply theory to field experience. This will help to evolve an interdisciplinary perspective and enhance the understanding of social problems and development issues.

Programme offered

1. M.A. in Social Work

Faculty and Areas of Interest

Professor		
1.	Virginius Xaxa, Ph.D. (IITK) – HoD	*Agrarian Studies, Plantation Labour, Indigenous Peoples, Development Studies*
Assistant Professors		
1.	Veda Yumnam, M.Phil. (JNU)	*Health Systems Research, Epidemiology of HIV / AIDS and Social Determinants of Health*
2.	Rajesh Kalarivayil, Ph.D. (JNU)	*Biomedical Governance, Innovation Studies, Science and Technology in Rural Development*
3.	Apurba Saha, Ph.D. (NIMHANS)	*Social Work and Mental Health, Psychosocial Care in Disaster Management, Street Children and Application of Social Work Methods*
4.	Deepshikha Carpenter, M.A. (MLCU)	*Social Work Education, Women's Studies, Disability, Crime and Violence*
5.	Namami Sharma, M.Phil. (DU)	*Environment and Ecology, Tribal Studies*
6.	Prerana Banik, M.Phil. (TISS)	*Food Security, Gender and Livelihood, Labour rights, Inclusive policies and development, Marginalised group and social development*

LEGENDS: ***IITK–*** *Indian Institute of Technology, Kanpur* ***, JNU****-Jawaharlal Nehru University New Delhi,* ***NIMHANS****-National Institute of Mental Health and Neurosciences Bangalore,* ***MLCU****- Martin Luther Christian University Shillong,* ***DU****– University of Delhi ,* ***TISS-*** *Tata Institute of Social Sciences Mumbai,* ***HoD****-Head of the Department.*

Research Activities

- No. of papers published in the year 2017-18: 7
- No. of ongoing research projects: 1
- No of current Ph.D. scholars:

Selected Publications

1. Dasgupta, R. and Yumnam, V. Social and behavioural sciences in health, Text book of Preventive and Social Medicine, 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, 90—102, 2014.

3. Yumnam, V. and Dasgupta, R. Conceptual issues of conflict as a social determinants of health: explorations from Manipur, The Art of the Possible: Understanding and Acting on the Social Determinants of Health in India, 2015.

Courses offered in M.A. in Social Work

First Semester			Second Semester		
Course Code	**Course Title**	**Cr.**	**Course Code**	**Course Title**	**Cr.**
SW 401*	Understanding Society	2	SW 431	Social Work Methods: Work With Groups	2
SW 402*	Human Behaviour and Social Environment	2	SW 432	Social Work Methods: Work With Communities	2
SW 403*	Political Economy and Development	2	SW 433	Research and Statistics	4
SW 411	Social Work Profession	2	SW 434	Development Administration and Governance	2
SW 412	Social Work Methods: Working With Individuals and Families	2	SW 450	Fieldwork	8
SW 430	Fieldwork	8	-	CBCT	3
-	CBCT	3	-	Elective -III	2
-	Elective -I	2	-	Elective -IV	2
-	Elective -II	2			

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

Elective-I and Elective-II are to be chosen from the following courses			**Elective-III and IV: Any two to be chosen from the following courses**		
Course Code	**Course Title**	**Cr.**	**Course Code**	**Course Title**	**Cr.**
SW 421	Community Health	2	SW 441	Gender, Women and Development	2
SW 422	Social Work with Children	2	SW 442	Environment and Ecology	2
SW 423	Literacy and Education	2	SW 443	Work with Older Persons	2

Third Semester				Fourth Semester		
Course Code	**Course Title**	**Cr.**		**Course Code**	**Course Title**	**Cr.**
SW 501	Management of Non-Profit Organizations	2		SW 551	Social Advocacy and Social Action	2
SW 502	Social Policy and Planning	2		SW 598	Continued Dissertation	4
SW 549	Dissertation	2		SW 599	Fieldwork	8
SW 550	Fieldwork	8		-	CBCT	3
-	CBCT	3		-	Elective- A/B/C	2+2
-	Elective- A/B/C	2+2		-	Elective- D	2+2
-	Elective- D	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

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

ELECTIVE (A)				ELECTIVE (B)		
Course Code	**Course Title**	**Cr.**		**Course Code**	**Course Title**	**Cr.**
SW 561	Therapeutic Counseling	2		SW 571	Disaster Management	2
SW 562	Hospital Administration	2		SW 572	Peace Education and Conflict Resolution	2

ELECTIVE (C)				ELECTIVE (D)		
Course Code	**Course Title**	**Cr.**		**Course Code**	**Course Title**	**Cr.**
SW 581	Labour Legislation	2		SW 591	Criminology and Correctional Administration	2
SW 582	H.R. Practices	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 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 classroom 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 was awarded the the UGC-SAP (DRS-I) of University Grants Commission in 2016.

Programmes offered

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

Faculty and Areas of Interest

Professors	
Virginius Xaxa, Ph.D. (IITK) (Gopinath Bardoloi Chair Professor)	*Agrarian Studies, Plantation Labour, Indigenous Peoples, Development Studies*
Chandan Kumar Sharma,* Ph.D. (DU^)-HoD	*Development, Environment, Migration, Agrarian Studies, Ethnicity, Social Movements, Northeast India*
Kedilezo Kikhi,* Ph.D. (NEHU)	*Research Methodology, Gender and Society, Sociology of Northeast India, Tribal Studies*
Associate Professor	
Rabin Deka,* Ph.D. (DU)	*Sociological Theories, Sociology of Movement, Agrarian Sociology*
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)	*Social Stigma and Exclusion, Sociology of Body, Sexuality*

Nirmali Goswami,* Ph.D. (IITK)	*Sociology of Education, Identity of Politics, Multiculturalism*
Sarmistha Das, Ph.D (TU)	*Gender Studies, Sociology of North East India*
Subhadeepta Ray, Ph.D. (DU^)	*Sociology of Science and Sociology of India*
A. S. Shimreiwung, Ph.D. (JNU)	*Sociology of Religion, Environmental Sociology, Sociology of Music*
Pamidi Hagjer, M.A. (JNU)	*Ritual Studies, Kinship, Sociological Theories*

*** Recognized Supervisor**

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

Facilities

The department has a library with selected books and photocopied materials. The classrooms are enabled with ICT facilities.

Research Activities

No. of papers published in the year 2017-18: 19

No. of ongoing research projects: NIL

No of current Ph.D. scholars: 25

Selected Publications

1. Xaxa, V., (ed), *Forest Lanterns*, Penguin, 2017.
2. Goswami, N., *Legitimising Standard Languages: Perspectives from a School in Banaras.* Sage. 2017.
3. Deka, R., "Religion, Patriarchy and Women's Rights" in Borah, R. (ed). *Violation of Women and Child Rights in India*. New Delhi: DVS Publishers. 2017.
4. Sharma, C.K. and Baruah, P., "Small Tea Plantation and its impact on the Rural Landscape of Contemporary Assam" *International Journal of Rural Management*, Sage, Vol. 13, No. 2, pp. 1-22, Sage, 2017.
5. *Sharma, C.K., "State Water Policy of Assam 2007: Conflict over Commercializing Water",* Water Conflicts in Northeast India. Eds. K. J. Joy, et al. Pp. 92-102, Routledge. 2017.

Courses offered in M.A. in Sociology

First Semester				Second Semester		
Course Code	**Course Title**	**Cr.**		**Course Code**	**Course Title**	**Cr.**
SC 411	Classical Sociological Traditions	4		SC 415	Contemporary Theoretical Perspectives in Sociology	4
SC 412	Research Methodology	4		SC 416	Economic Sociology	4
SC 413	Sociology of Family and Kinship	4		SC 417	Social Stratification	4
SC 414	Sociology of India	4		-	Elective - I	3
-	CBCT	3		-	CBCT	3

Third Semester				Fourth Semester		
Course Code	**Course Title**	**Cr.**		**Course Code**	**Course Title**	**Cr.**
SC 510	Political Sociology	4		SC 513	Sociology of Religion	4
SC 511	Sociology of Development	4		SC 514	Social Movements in India	4
SC 512	Sociology of Northeast India	4		SC 515	Research Project	8
-	Elective -II	3		-	Elective -III	3
-	CBCT	3		-	Elective -IV	3
				-	CBCT	3

Elective courses offered by the Department						
Course Code	**Course Title**	**Cr.**		**Course Code**	**Course Title**	**Cr.**
SC 431	Fieldwork Practicum	3		SC 553	Environmental Sociology	3
SC 432	Social Statistics	3		SC 554	Sociology of Culture and Mass Media	3
SC 433	Population and Society	3		SC 555	Sociology of Governance	3
SC 550	Gender and Society	3		SC 556	Sociology of Education	3
SC 551	Industrial Sociology	3		SC 557	Identity and Violence	3
SC 552	Sociology of Health and Illness	3		SC 558	Sociology of Science	3

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

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 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. Apart from externally funded projects, consultancy projects are also run by faculty members of the Department. 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. (Chemistry Major)
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, Adjunct professor, 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), Dean, SoS	*Theoretical Chemistry, Catalysis and Drug Design*

Ashim Jyoti Thakur,* Ph.D. (NEIST)-HoD	*Heterocyclic Chemistry, Organic Synthesis and Molecular Container Chemistry*
Ashwini Kumar Phukan,* Ph.D. (UoHyd)	*Theoretical Inorganic and Organometallic Chemistry*
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)	*Physical Chemistry, Molecular Engineering and Molecular Recognition*
INSA Young Scientist	
Sanjay Pratihar,$ Ph.D. (IITKgp)	*Inorganic Chemistry, Organometallic Chemistry*

***Recognized Supervisor $ Recognized Associate Supervisor**

LEGENDS: ***MKU-*** *Madurai Kamaraj University Tamil Nadu* ***CU****-Calcutta University,* ***NCL****- National Chemical Laboratory Pune, SoS– School of Sciences,* ***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 undergraduate and post graduate level studies in Chemical Sciences, the Department is equipped with sophisticated instrumentation facilities, like FT-IR spectrophotometer, CHN Analyzer, Thermal analyzer, UV-Visible spectrophotometer, Universal testing machine (UTM), Atomic absorption spectrophotometer, Polarizing microscope, Computational facilities etc. Besides these, the University has central instrumentation facilities of Scanning electron microscope, 400 MHz Nuclear Magnetic Resonance spectrophotometer, TEM, SEM, Raman spectrophotometer, Single crystal X-ray instrument, GC-MS, ICP-AES, GPC, HPLC, GC etc.

Award

The highest scorer among the students of M.Tech. in Polymer Science and Technology programme is awarded with the Polymer Science Award that carries a cash prize.

Research Activities

- No. of papers published in the year 2017-2018: 100
- No. of ongoing research projects: 25
- No. of current Ph.D. scholars: 71

Selected Publications

1. Das, V. K., Gogoi, S., Choudary, B. M. and Karak, N., A promising catalyst for exclusive para hydroxylation of substituted aromatic hydrocarbons under UV light, *Green Chemistry*, 19, 4278-4283, 2017.

2. Mondal, M. and Bharali, P., Nickel-catalyzed reductive defunctionalization of esters and amides to aromatic hydrocarbons, *New Journal of Chemistry*, 41, 13211-13214, 2017.

Courses offered in Integrated B.Sc.B.Ed. (Chemistry major)

First Semester				Second Semester		
Course Code	**Course Title**	**Cr.**		**Course Code**	**Course Title**	**Cr.**
PD 101	Physics-I	3		PD 102	Physics-II	3
CD 101	Chemistry-I	4		CD 102	Chemistry-II	4
BD 101	Biology-I	3		BD 102	Biology-II	3
MD 101	Mathematics-I	3		MD 102	Mathematics-II	3
ED 104	Communicative English	3		NS 106	National Service Scheme/NCC	2
ED 105	Basics in Computer Application	3		ED 107	Education and Development	3
ED 106	Education: An Evolutionary Perspective	3		-	CBCT -I	3

Third Semester				Fourth Semester		
Course Code	**Course Title**	**Cr.**		**Course Code**	**Course Title**	**Cr.**
CD 201	Physical Chemistry-I	3		CD 202	Physical Chemistry-II	3
CD 203	Organic Chemistry-I	3		CD 204	Organic Chemistry-II	3
CD 205	Inorganic Chemistry-I	3		CD 206	Inorganic Chemistry-II	3
PD 211	Quantum Physics	3		PD 216/ BI 224	Thermodynamics and Optics / Ecology and Environmental Biology	3
ED 202	Learner and Learning	3		PD 298	Laboratory-II	4
ED 205	Environmental Education	3		ED 203	Contemporary Issues in Education	3
MD211	Numerical Methods and Integrals	3		ED 204	Assessment and Evaluation	3
-	CBCT -II	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-III	3
CD 305	Inorganic Chemistry-III	4
CD 307	Chemistry Laboratory- III	4
-	CBCT - 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 -IV	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-V	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-VI	3

Courses offered in Integrated M.Sc. in Chemistry

First Semester		
Course Code	**Course Title**	**Cr.**
PI 101	Physics-I	3
CI 101	Chemistry-I	4
BI 101	Biology-I	3
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			Fourth Semester		
Course Code	**Course Title**	**Cr.**	**Course Code**	**Course Title**	**Cr.**
CI 201	Chemistry-III	3	CI 202	Chemistry -IV	3
CI 203	Physical Chemistry-I	3	CI 204	Physical Chemistry-II	3
CI 205	Organic Chemistry-I	3	CI 206	Organic Chemistry-II	3
CI 207	Inorganic Chemistry-I	3	CI 208	Inorganic Chemistry-II	3
CI 209	Chemistry Laboratory-I	3	CI 210	Chemistry Laboratory-II	3
MI 211	Numerical Methods and Integrals	3	MI 212	Introductory Statistics	3
PI 211	Quantum Physics	3	PI 216/ BI 224	Thermodynamics and Optics /Ecology and Environmental Biology	3/3
-	CBCT -V	3	-	CBCT -VI	3

Fifth Semester			Sixth Semester		
Course Code	**Course Title**	**Cr.**	**Course Code**	**Course Title**	**Cr.**
CI 301	Physical Chemistry-III	3	CI 302	Physical Chemistry-IV	3
CI 303	Organic Chemistry-III	3	CI 304	Organic Chemistry-IV	3
CI 305	Inorganic Chemistry-III	3	CI 306	Inorganic Chemistry-IV	3
CI 307	Quantum Chemistry	3	CI 308	Principles and Applications of Spectroscopy	3
CI 309	Chemistry Laboratory-III	4	CI 310	Chemistry Laboratory-IV	4

Seventh Semester			Eighth Semester		
Course Code	**Course Title**	**Cr.**	**Course Code**	**Course Title**	**Cr.**
CI 401	Principles of Inorganic Chemistry	3	CI 408	Chemistry of Transition Elements	3
CI 402	Principles of Organic Chemistry	3	CI 409	Organic Reactions and Mechanism	3
CI 403	Chemical and Statistical Thermodynamics	3	CI 410	Chemical Dynamics and Electrochemistry	3
CI 404	Quantum Chemistry and Chemical Bonding	3	CI 411	Principles and Applications of Spectroscopy	3
CI 405	Laboratory Course in Organic Chemistry	6	CI 412	Laboratory Course in Inorganic Chemistry	6
-	CBCT -VII	3	-	CBCT -VIII	3

Ninth Semester			Tenth Semester		
Course Code	**Course Title**	**Cr.**	**Course Code**	**Course Title**	**Cr.**
CI 501	Bio-organic Chemistry	3	CI 506/ 507/ 508	Elective -I	3
CI 502	Physical Chemistry of Surface and Condensed Systems	3	CI-509/ 510/ 511	Elective- II	3
CI 503	Special Topics in Inorganic	3	CI 512/	Elective- III	3

	Chemistry			513/ 514/ 515/ 516		
CI 504	Analytical Techniques	3		CI 517	Project Work	9
CI 505	Laboratory Course in Physical Chemistry	6				

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

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

Course Code	Course Title	Cr.		Course Code	Course Title	Cr.
CS 535	Introduction to Scientific Computing	3		CL 121	Basic Chinese-I	3
EG 101	Communicative English-I	3		CL 122	Basic Chinese- II	3
EG 102	Communicative English-II	3		FL 101	Basic French-I	3
ES 102	Elementary Environmental Science	3		FL 102	Basic French-II	3
ES 542	Laboratory Guidance and Safety	3		GL 101	Basic German-I	3
SC 102	Basic Sociology	3		GL 102	Basic German-II	3
BM101	Elementary Economics	3		DM 301	Disaster Management	3

Elective I: Any one from the following group				Elective II: Any one from the following group		
Course Code	Course Title	Cr.		Course Code	Course Title	Cr.
CI 506	Catalysis (Physical)	3		CI 509	Polymer Chemistry (Physical)	3
CI 507	Bio-inorganic Chemistry (Inorganic)	3		CI 510	Organometallic Chemistry (Inorganic)	3
CI 508	Methods in Organic Synthesis (Organic)	3		CI 511	Heterocyclic Compounds and Medicinal Applications (Organic)	3

Elective III: Any one from the following group						
Course Code	Course Title	Cr.		Course Code	Course Title	Cr.
CI 512	Chemistry of Materials	3		CI 515	Environmental and Green Chemistry	3
CI 513	Organic Solid States Chemistry	3		CI 516	Computational Chemistry and Numerical Analysis	3
CI 514	Biomolecular Chemistry	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-I	3

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

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

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

Elective I: Any one from the following group		
Course Code	**Course Title**	**Cr.**
CH 506	Catalysis (Physical)	3
CH 507	Bio-inorganic Chemistry (Inorganic)	3
CH 508	Methods in Organic Synthesis (Organic)	3

Elective II: Any one from the following group		
Course Code	**Course Title**	**Cr.**
CH 509	Polymer Chemistry (Physical)	3
CH 510	Organometallic Chemistry (Inorganic)	3
CH 511	Heterocyclic Compounds and Medicinal Applications (Organic)	3

Elective III: Any one from the following group		
Course Code	**Course Title**	**Cr.**
CH 512	Chemistry of Materials	3
CH 513	Organic Solid States Chemistry	3
CH 514	Biomolecular Chemistry	3

Elective III: Any one from the following group		
Course Code	**Course Title**	**Cr.**
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-I	3

Second Semester		
Course Code	**Course Title**	**Cr.**
PT 510	Processing and Fabrication of Polymers	3
PT 511	Polymer Rheology and Morphology	3
PT 512	Rubber Science and Technology	3
PT 517	Polymer Processing and Testing Laboratory	3
-	Elective - II	3
-	Elective - III	3
-	CBCT-II	3

Third Semester		
Course Code	**Course Title**	**Cr.**
PT 605	Project- I	9
-	Elective- IV	3
-	CBCT -III	3

Fourth Semester		
Course Code	**Course Title**	**Cr.**
PT 606	Project-II	12

Elective I: Any one from the following group		
Course Code	**Course Title**	**Cr.**
PT 506	Paints and Surface Coating Technology	3
PT 507	Fiber Science and Technology	3
PT 508	Production of Polymer Raw Materials	3

Elective II: Any one from the following group		
Course Code	**Course Title**	**Cr.**
PT 513	Polymer Composites and Blends	3
PT 514	Conducting 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

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 and Adaption, Hydrogeochemistry, Vermicomposting, Pollution Remediation, Biodiversity Conservation and Atmospheric System Modeling. The Department is a recipient of grant under UGC-SAP and DST-FIST.

Programmes offered

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

Faculty and Areas of Interest

Professors	
Kushal Kumar Baruah, Ph.D. (PAU)(Retired & re appointed as Professor from 16.01.2018 to 30.06.2018)	*Environmental Plant Physiology and Biochemistry*
Kali Prasad Sarma,* Ph.D. (NEHU)	*Water and Soil Pollution, Hydro-geochemistry, Remediation of Toxic Substances*
Raza Rafiqul Hoque,* Ph.D. (JNU)	*Air Pollution and Environmental Monitoring and Assessment*
Apurba Kumar Das,* Ph.D. (JNU)	*Geomorphology, Regional Climate*
Associate Professors	
Ashalata Devi,* Ph.D. (NEHU)-HoD	*Forest Ecology, Wildlife and Biodiversity Conservation*
Assistant Professors	
Nirmali Gogoi,* Ph.D. (DU)	*Stress Physiology and Biochemistry*
Satya Sundar Bhattacharya,* Ph.D. (VB)	*Vermiculture, Plant Nutrition and Soil Fertility Management ,* *Soil C management, plant products & nano fertilizers*
Sumi Handique, Ph.D. (TU)	*Geochemistry of of River Basins, Hydrogeochemistry.*

Amit Prakash,* Ph.D. (JNU)	*Air pollution Meteorology, Noise Pollution Monitoring and Modelling , Environmental System Modelling, Urban Climate.*
Sudip Mitra,* Ph.D. (IARI) *on lien till 19.01.2018*	*Environmental Science - Environmental Chemistry*
Nayanmoni Gogoi, Ph.D. (IITG)	*Ecosystem functions , Geochemistry & Hydrochemistry, Geostatistics, Pollution Indexing, Nanobiotechnology, Wetland Productivity.*
Santa Kalita, Ph.D. (GU)	*Entomology & Environmental Physiology*
Pratibha Deka, Ph.D. (TU)	*Environmental Pollution– Air, Water & Soil; Human– Environment Interactions*

*** Recognized Supervisor**

LEGENDS: ***PAU****-Punjab Agricultural University,* ***NEHU****-North Eastern Hill University,* ***JNU****-Jawaharlal Nehru University,* ***DU****-Dibrugarh University,* ***TU****– Tezpur University,* ***VB****-Visva Bharati Santiniketan,* ***IARI****-Indian Agricultural Research Institute,* ***IITG-****Indian Institute of Technology Guwahati,* ***GU–*** *Gauhati University,* ***HoD****- Head of the Department.*

Facilities

The Department has a sophisticated instrumentation laboratory to facilitate research and other academic activities. The laboratory has equipment, like 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 2016-17: **61**

No. of ongoing research projects: **05**

No of current Ph.D. scholars: **36**

Selected Publications

1. Das, S., Teja, K.C., Mukherjee, S., Seal, S., Sah, R.K., Duary, B., Kim, K.H. (2018) Impact of edaphic factors and nutrient management on the hepatoprotective efficiency of Carlinoside purified from pigeon pea leaves: An evaluation of UGT1A1 activity in hepatitis induced organelles. Environmental research 161: 512-523.
2. Bharali, A., Baruah, K. K., Bhattacharya, P. & Gorh, D. (2017): Integrated nutrient management in wheat grown in a northeast India soil: Impacts on soil organic carbon fractions in relation to grain yield. Soil and Tillage Research. 168: 81-91.
3. Sarma, J., Dutta, G. & Devi, A., (2017) *Capsicum Sonitpurensis* (Solanaceae) - A New Species From Assam, India. BJPT, 24(2) : 215-218. DOI: http://dx.doi.org/10.3329/bjpt.v24i2.35117

4. Sah, R.K . & Das, A.K. (2017)Minimizing Ambiguities in stream classification of Complex Drainage Structures. Journal of Hydrology. 90(2): 183-186.
5. Sarma, B., Borkotoki, Narzari, B., Kataki, R. and Gogoi, N (2017) Organic amendments: Effect on carbon mineralization and crop productivity in acidic soil. Journal of Cleaner Production. 152: 157-166.
6. Baruah, S., Sarma Bora, M., Sharma, P., & Sarma, K. P. (2017) Understanding of the Distribution, Translocation, Bioaccumulation, and Ultrastructural Changes of *Monochoria hastata* Plant Exposed to Cadmium. Water Air Soil Pollution. 228: 17 DOI 10.1007/s11270-016-3092-8

Courses offered in M. Sc. in Environmental Science

First Semester				Second Semester		
Course Code	**Course Title**	**Cr.**		**Course Code**	**Course Title**	**Cr.**
ES551	Fundamentals of Environmental Science	2		ES556	Solid Waste Management and Technology	3
ES552	Statistical Methods and Environmental Application	3		ES557	Climatology and Meteorology	2
ES553	Ecology and Ecosystem Dynamics	3		ES558	Environmental Biology	3
ES554	Earth Processes and Natural Hazards	3		ES559	Environmental Physics	3
ES555	Environmental Chemistry and Toxicology	3		ES560	GIS-Remote Sensing and application	2
-	**Open elective (one course)*	3		ES576	Environmental System Analysis	3
				ES572	Natural Resource and Biodiversity Conservation	3
				-	**Open elective (one course)*	3
				-	Departmental Elective *(one course of 2 credit to be chooses from offered courses)*	2

Third Semester				Fourth Semester		
Course Code	**Course Title**	**Cr.**		**Course Code**	**Course Title**	**Cr.**
ES562	Analytical Methods	3		ES569	Energy and Environment	2
ES564	Agriculture and Environmental Sustainability	2		ES563	Environmental Impact Assessment	2
ES565	Environmental Pollution and Management	3		ES550	Project	10
ES566	Soil Science	3		-	Departmental Elective *(one course of 2 credit to be choosen from offered courses)*	2
ES567	Environmental Plant Physiology and Biochemistry	**3**				
ES568	Hydrogeochemical Processes	2				

ES573	Environmental Extension and Field Survey	1		
-	**Open elective (one course)*	3		
-	Departmental Elective *(one course of 2 credit to be choosen from offered courses)*	2		

** Students are to choose a total of 06 Credits of Open Elective courses offered by other departments, preferably to be finished within 3rd semester.*

Discipline Centric Elective Courses

Course Code	Course Title	Cr.
ES545	Human Population, Social issues and the Environment	2
ES546	Environmental biotechnology	2
ES547	Agro-Forestry and Forest Management	2
ES548	Environmental Economics	2
ES574	Laboratory Safety	2
ES575	Atmospheric Chemistry	2
ES570	Environmental Laws and Policies	2
ES571	Climate Change and Its Impacts	2

Open Elective Courses

Course Code	Course Title	Cr.
ES 541	Contemporary Environmental Issues	3
ES 542	Laboratory Guidance & Safety	3
ES 543	Environmental Economics and Management	3
ES 544	Introductory Air Pollution	3
ES 577	Indoor Air Pollution and Human Health	3
ES 578	Environmental Pollution	3
ES 579	Plant Diversity and Taxonomy	3

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

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), Fluid mechanics, 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	
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*
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 Partition, 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, Ph.D. (DU^)	*Coding Theory*
Debopam Chakraborty , Ph.D. (IITG)	*Class Groups and Fundamental Units of Number Fields*

*** Recognized Supervisor**

LEGENDS: ***TU****-Tezpur University,* ***JMI****-Jamia Millia Islamia New Delhi,* ***IITG****-Indian Institute of Technology Guwahati,* ***GU****– Gauhati University,* ***DU****-Dibrugarh University,* ***IITK****-Indian Institute of Technology Kanpur,* ***NEHU****- North Eastern Hill University Shillong,* ***IITB****-Indian Institute of Technology Bombay,* ***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 software are available in the laboratory. The laboratory is fully networked and it is linked with the Central Computer Center via LAN with access to the INTERNET. One Systems Analyst and one Technical Assistant look after the computational and networking facilities of the department. The laboratory is being fully upgraded under DST-FIST grant.

Research Activities

- No. of papers published in the year 2017-2018: 13
- No. of ongoing research projects: 01
- No of current Ph.D. scholars: 24

Selected Publications (During the year 2017)

1. Bapat, R. B., Kalita, D., Nath, M. and Sarma, D. Convex and quasiconvex functions on trees and their applications, *Leaner Algebra and its Applications*, (533) (2017), 210-234
2. Basnet, D. K. and Bhattacharyya, J. Nil Clear graphs of rings, *Algebra Colloquium*, 24 (2017), no.3, 481-492.
3. Chakraborty, D and Saikia, A. An explicit construction for unramified quadratic extensions of biquadratic fields, *Acta Arithmetica*, 178 (2017), no 2, 153-161
4. Das, P. K. Bounds on parity check of linear codes detecting repeated solid bursts, *Bulletin of Pure and Applied Sciences- Mathematics and Statistics*, 36 (2017), no 1, 62-69.
5. Dutta J., Basnet, D. K. and Nath, R. K., On commuting probability of finite rings, *Indagationes Mathematicae*, 28(2017), no 2, 272-282

Courses offered in Integrated B.Sc.B.Ed. (with major in Mathematics)

First Semester				Second Semester		
Course Code	**Course Title**	**Cr.**		**Course Code**	**Course Title**	**Cr.**
PD 101	Physics-I	3		PD 102	Physics-II	3

CD 101	Chemistry-I	4		CD102	Chemistry-II	4
BD 101	Biology-I	3		BD102	Biology-II	3
MD 101	Mathematics-I	3		MD 102	Mathematics-II	3
ED 104	Communicative English	3		NS 106	National Service Scheme/NCC	2
ED 105	Basics in Computer Application	3		ED 107	Education and Development	3
ED 106	Education: An Evolutionary Perspective	3		-	CBCT	3

Third Semester				Fourth Semester		
Course Code	**Course Title**	**Cr.**		**Course Code**	**Course Title**	**Cr.**
PD 211	Quantum Physics	3		MD 210	Elementary Abstract Algebra	3
MD 213	Set theory and Mathematical Logic	3		MD 212	Introductory Statistics	3
MD 215	Classical Algebra	3		MD 214	Linear Space and Linear Programming	3
ED 202	Learner and Learning	3		MD 216	Elementary Real Analysis	3
ED 205	Environmental Education	3		ED 203	Contemporary Issues in Education	3
MD211	Numerical Methods and Integrals	3		ED 204	Assessment and Evaluation	3
-	CBCT	3		PD216/ BD 224	Thermodynamics and Optics/ Ecology and Environmental Biology	3/3

Fifth Semester				Sixth Semester		
Course Code	**Course Title**	**Cr.**		**Course Code**	**Course Title**	**Cr.**
ED 301	Teaching Approaches and Learning Resources	3		MD 307	Elementary Number Theory	4
ED 302	Classroom Organization and Management	3		MD 308	Theory of Ordinary Differential Equations	4
MD 207	Coordinate Geometry	3		MD 312	Elementary Complex Analysis	3
MD 209	Statics and Dynamics	3		ED308	Pedagogy A: Physical Science I	3
MD 301	Computer Programming+	4		ED307/ ED309	Pedagogy B: Mathematics I/ Biological Science I	3
MD 309	Computer Laboratory	2		ED 303	School Education in North East India	2
-	CBCT	3		-	CBCT	3

Seventh Semester				Eighth Semester		
Course Code	**Course Title**	**Cr.**		**Course Code**	**Course Title**	**Cr.**
MD 208	Linear Algebra	4		MD 410	Measure Theory	3
MD 303	Real Analysis	4		ED 405	School Internship –II (16 weeks)	12
ED 404	Initial School Experience/ School Internship-I	3		-	CBCT	3
ED 407/ ED 409	Pedagogy B: Mathematics -II/ Pedagogy B: Biological Science -II	3				
ED 408	Pedagogy A : Physical Science - II	3				
-	CBCT	3				

Courses offered in Integrated M.Sc. in Mathematics

First Semester				Second Semester		
Course Code	**Course Title**	**Cr.**		**Course Code**	**Course Title**	**Cr.**
PI 101	Physics -I	3		PI 102	Physics-II	3
CI 101	Chemistry -I	4		CI 102	Chemistry-II	4
BI 101	Biology -I	3		BI 102	Biology-II	3
MI 101	Mathematics -I	3		MI 102	Mathematics-II	3
-	CBCT -I	3		NS 102	National Service Scheme	2
-	CBCT -II	3		-	CBCT -III	3
				-	CBCT -IV	3

Third Semester				Fourth Semester		
Course Code	**Course Title**	**Cr.**		**Course Code**	**Course Title**	**Cr.**
MI 207	Co-ordinate Geometry	3		MI 210	Elementary Abstract Algebra	3
MI 211	Numerical Methods and Integrals	3		MI 212	Introductory Statistics	3
MI 213	Set Theory and Mathematical Logic	3		MI 214	Linear Space and Linear Programming	3
MI 215	Classical Algebra	3		MI 216	Elementary Real Analysis	3
PI 211	Quantum Physics	3		PI 216/ BI 224	Thermodynamics and Optics / Ecology and Environmental Biology	3/ 3
-	CBCT -V	3		-	CBCT -VI	3

Fifth Semester				Sixth Semester		
Course Code	**Course Title**	**Cr.**		**Course Code**	**Course Title**	**Cr.**
MI 208	Linear Algebra	4		MI 304	Topology	4
MI 209	Statics and Dynamics	3		MI 308	Theory of Ordinary Differential Equations	4
MI 301	Computer Programming+	4		MI 312	Elementary Complex Analysis	3
MI 303	Real Analysis	4		MI 403	Measure Theory	3
MI 309	Computer Laboratory	2		MI 504	Mathematical Programming	3
-	CBCT -VII	3		-	CBCT -VIII	3

Seventh Semester				Eighth Semester		
Course Code	**Course Title**	**Cr.**		**Course Code**	**Course Title**	**Cr.**
MI 305	Abstract Algebra	4		MI 302	Numerical Analysis+	4
MI 306	Functional Analysis	4		MI 307	Elementary Number Theory	4
MI 402	Advanced Analysis	3		MI 310	Computer Laboratory	2
MI 409	Probability	3		MI 408	Complex Analysis	4
MI 411	Partial Differential Equations	4		MI 410	Mathematical Methods	4
-	CBCT -IX	3		-	CBCT -X	3

Ninth Semester				Tenth Semester		
Course Code	**Course Title**	**Cr.**		**Course Code**	**Course Title**	**Cr.**
MI 405	Graph Theory	4		MI 401	Classical Mechanics	4
MI 406	Probability Theory	4		MI 515	Project	8
MI 407	Mathematical Software	2		-	Open Elective- III	4
MI 515	Project (to be continued to 10th	0		-	Open Elective- IV	4

	semester)					
-	Open Elective- I	4				
-	Open Elective- II	4				
-	CBCT -XI	3				

+ 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.		Course Code	Course Title	Cr.
CS 535	Introduction to Scientific Computing	3		CL 121	Basic Chinese-I	3
EG 101	Communicative English-I	3		CL 122	Basic Chinese- II	3
EG 102	Communicative English-II	3		GL 101	Basic German-I	3
SC 102	Basic Sociology	3		GL 102	Basic German-II	3
ES 102	Elementary Environmental Science	3		FL 101	Basic French-I	3
ES 542	Laboratory Guidance and Safety	3		FL 102	Basic French-II	3
BM 101	Elementary Economics	3		DM 301	Disaster Management	3

Electives to be offered from the following courses						
Course Code	Course Title	Cr.		Course Code	Course Title	Cr.
MI 537	Stochastic Processes-I	4		MI 566	Fourier Analysis	4
MI 538	Theory of Partial Differential Equation	4		MI 567	Continuum Mechanics	4
MI 539	Advanced Numerical Analysis	4		MI 568	Theory of Distribution and Sobolev Spaces	4
MI 540	Mathematical Methods in Finance	4		MI 572	Operator Theory -II	4
MI 541	Fluid Mechanics	4		MI 573	Analytic Number Theory	4
MI 542	Electrodynamics	4		MI 574	Advanced Algebra-II	4
MI 543	Relativity	4		MI 576	Quantum Mechanics -II	4
MI 544	Operation Research	4		MI 577	Mathematical Modeling-II	4
MI 545	Elliptic Curves	4		MI 580	Sampling Techniques-II	4
MI 546	Algebraic Number Theory	4		MI 581	Stochastic Processes -II	4
MI 547	Numerical Linear Algebra	4		MI 582	Reliability Theory	4
MI 548	Mathematical Logic	4		MI 584	Multivariate Analysis-II	4
MI 549	Graph Theory	4		MI 585	Fuzzy Sets and Applications-II	4
MI 550	Discrete Mathematics	4		MI 586	Parallel Numerical Algorithms	4
MI 551	Introduction to Category Theory	4		MI 587	Finite Element Method	4
MI 552	Operator Theory-I	4		MI 588	Applied Matrix Theory	4
MI 554	Advanced Algebra-I	4		MI 591	Computational Fluid Dynamics	4
MI 556	Quantum Mechanics-I	4		MI 593	Wavelets and Applications	4
MI 557	Mathematical Modeling-I	4		MI 594	Advanced Topology-I	4
MI 558	General Theory of Relativity	4		MI 595	Numerical Solutions of ODE	4
MI 560	Sampling Techniques-I	4		MI 596	Advanced Topology-II	4
MI 562	Statistical Quality Control	4		MI 597	Numerical Solutions of PDE	4
MI 564	Multivariate Analysis-I	4		MI 598	Algebraic Geometry	4
MI 565	Fuzzy Sets and Applications-I	4				

Note: 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.

Courses offered in M. Sc. in Mathematics

First Semester				Second Semester		
Course Code	**Course Title**	**Cr.**		**Course Code**	**Course Title**	**Cr.**
MS 401	Abstract Algebra	4		MS 406	Complex Analysis	4
MS 403	Linear Algebra	4		MS 408	Topology	4
MS 405	Real Analysis	4		MS 414	Ordinary Differential Equations	4
MS 411	Computer Programming	4		MS 416	Numerical Analysis	3
MS 421	Computer Laboratory	2		MS 418	Measure Theory	3
-	CBCT-I	3		MS 424	Computer Laboratory	1
				-	CBCT -II	3

Third Semester				Fourth Semester		
Course Code	**Course Title**	**Cr.**		**Course Code**	**Course Title**	**Cr.**
MS 410	Functional Analysis	4		MS 501	Classical Mechanics	4
MS 507	Partial Differential Equations	4		MS 503	Mathematical Programming	3
MS 511	Probability	3		MS 508	Mathematical Methods	4
MS 515	Project	3		-	Elective- II	4
-	Elective- I	4		-	CBCT -IV	3
-	CBCT-III	3				

Elective to be offered from the following units						
Course Code	**Course Title**	**Cr.**		**Course Code**	**Course Title**	**Cr.**
MS 538	Theory of Partial Differential Equation	4		MS 567	Continuum Mechanics	4
MS 539	Advanced Numerical Analysis	4		MS 568	Theory of Distribution and Sobolev Spaces	4
MS 540	Mathematical Methods in Finance	4		MS 572	Operator Theory -II	4
MS 541	Fluid Mechanics	4		MS 573	Number Theory-II	4
MS 542	Electrodynamics	4		MS 574	Advanced Algebra-II	4
MS 543	Relativity	4		MS 576	Quantum Mechanics -II	4
MS 544	Operation Research	4		MS 577	Mathematical Modeling-II	4
MS 545	Elliptic Curves	4		MS 578	High Energy Astrophysics	4
MS 546	Algebraic Number Theory	4		MS 579	Magneto Hydrodynamics and Plasma Physics-II	4
MS 547	Numerical Linear Algebra	4		MS 580	Sampling Techniques-II	4
MS 548	Mathematical Logic	4		MS 581	Stochastic Processes -II	4
MS 549	Graph Theory	4		MS 582	Reliability Theory	4
MS 550	Discrete Mathematics	4		MS 583	Advanced Analysis-II	4
MS 551	Introduction to Category Theory	4		MS 584	Multivariate Analysis-II	4
MS 552	Operator Theory-I	4		MS 585	Fuzzy Sets and Applications-II	4
MS 553	Number Theory-I	4		MS 586	Parallel Numerical Algorithms	4
MS 554	Advanced Algebra-I	4		MS 587	Finite Element Method	4
MS 556	Quantum Mechanics-I	4		MS 588	Applied Matrix Theory	4
MS 557	Mathematical Modeling-I	4		MS 591	Computational Fluid Dynamics	4
MS 558	General Theory of Relativity	4		MS 592	An Introduction to Fourier Theory	4
MS 559	Magneto Hydrodynamics and Plasma	4		MS 593	Wavelets and Applications	4
MS 560	Sampling Techniques-I	4		MS 594	Advanced Topology-I	4
MS 561	Stochastic Processes-I	4		MS 595	Numerical Solutions of ODE	4
MS 562	Statistical Quality Control	4		MS 596	Advanced Topology-II	4
MS 563	Advanced Analysis-I	4		MS 597	Numerical Solutions of PDE	4

MS 564	Multivariate Analysis-I	4		MS 598	Algebraic Geometry	4
MS 565	Fuzzy Sets and Applications-I	4		MS 599	Probability Theory	4
MS 566	Fourier Analysis	4				

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

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 and is supported by UGC-SAP (DRS-II) and DST-FIST. Department also houses ONGC-CPBT, which is a part of successful industry academia collaboration.

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.

Programmes offered

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

The students admitted to the M.Sc. Programme are eligible for monthly fellowship of Rs. 5000/- only (for detailed information please visit: http:// www.tezu.ernet.in/dmbbt) by the DBT supported M.Sc. Biotechnology teaching programme.

Faculty and Areas of Interest

Professors	
Bolin Kumar Konwar,* Ph.D. (IC)	*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), Dean, R &D	*Snake Venom Biochemistry and Microbial Biotechnology*
Sashi Baruah,* Ph.D. (PGIMER)	*Innate Immunity and Immunogenetics ((Heterogeneity and Evolution of Immune Responses)*
Suvendra Kumar Ray,* Ph. D. (CCMB)	*Molecular Plant -Microbe Interactions, Molecular Evolution*
Manabendra Mandal,* Ph.D. (IGIB)	*Probiotics and Nutrition, Microbial Biofilm, Bioenergy*
Anand Ramteke,* Ph.D. (JNU)- HoD	*Cancer Genetics and Chemoprevention*

Associate Professor	
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*
Aditya Kumar, Ph.D. (IISc)	*Computational Biophysics, Genomics and Bioinformatics*
Pankaj Barah, Ph.D. (NUST)	*Evolutionary Genomics , Systems Biology , Big-data in Biology , Structural Systems Biology , Systems Medicine*

*** Recognized Supervisor $ Recognized Associate Supervisor**

*LEGENDS: **IC**-Imperial College London, **DU**-Dibrugarh University, **BU**-Burdwan University West Bengal, **R &D**– Research and Development, **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, **UoH**-University of Hyderabad, **IISc**-Indian Institute of Science Bangalore , **IACS**-Indian Association for the Cultivation of Science Kolkata, **JU**-Jadavpur University Kolkata, **VB**-VisvaBharati Santiniketan, **IITG**-Indian Institute of Technology Guwahati, **NUST**- Norwegian University of Science and Technology Norway, **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 2017-2018 : 22
- No. of ongoing research projects: 38
- No of current Ph.D. Scholars: 66

Selected Publications

1. Chaliha, C., Nath, B. K., Verma, P. K., & Kalita, E. (2016). Synthesis of functionalized Cu: ZnS nanosystems and its antibacterial potential. *Arabian Journal of Chemistry*.
2. Deka, K., Singh, A., Chakraborty, S., Mukhopadhyay, R., Saha, S. (2016). Protein arginylation regulates cellular stress response by stabilizing HSP70 and HSP40 transcripts. *Cell Death Discov*. 2016 Oct 3;2:16074. eCollection.
3. Das, V. K., Bharali, P., Konwar, B. K., Mikkola, J. P., Shchukarev, A., & Thakur, A. J. (2016). A convenient 'NOSE'approach used towards the synthesis of 6-amino-1, 3-dimethyl-5-indolyl-1 H-pyrimidine-2, 4-dione derivatives catalyzed by nano-Ag. *New Journal of Chemistry*, *40*(3), 1935-1939.
4. Sanjeev, A., & Mattaparthi, V. S. K. (2017). Computational investigation on the effects of H50Q and G51D mutations on the α-Synuclein aggregation propensity. *Journal of Biomolecular Structure and Dynamics*, 1-13.
5. Sharma, M., Iyer, J. K., Shih, N., Majumder, M., Mattaparthi, V. S. K., Mukhopadhyay, R., & Doley, R. (2016). Daboxin P, a Major Phospholipase A2 Enzyme from the Indian Daboia russelii russelii Venom Targets Factor X and Factor Xa for Its Anticoagulant Activity. *PloS one*, *11*(4), e0153770.

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

First Semester				Second Semester		
Course Code	**Course Title**	**Cr.**		**Course Code**	**Course Title**	**Cr.**
BI 101	Biology-I	3		BI 102	Biology-II	3
PI 101	Physics-I	3		PI 102	Physics-II	4
CI 101	Chemistry-I	4		CI 102	Chemistry-II	3
MI 101	Mathematics-I	3		MI 102	Mathematics-II	3
CS 101	Introduction to Scientific Computing	3		ES 102	Elementary Environmental Science	3
EG 101	Communicative English-I	3		SC 102/ EG102	Basic Sociology/Communicative English-II	3
				NS 102	NSS	2

Third Semester				Fourth Semester		
Course Code	**Course Title**	**Cr.**		**Course Code**	**Course Title**	**Cr.**
BI 223	Cell Biology	3		MI 212	Introductory Statistics	3
BI 227	Laboratory for Biochemistry and Cell Biology	2		BI 222	Microbiology	3

BI 229	Animal Physiology	3		BI 226	Basic in Biocomputing	3
BI 231	Biochemistry - I	3		BI 228	Laboratory in Microbiology	2
MI 211	Numerical Methods and Integrals	3		BI 230	Plant Physiology	3
CI 201	Chemistry - III	3		CI 202	Chemistry - IV	3
-	CBCT	3		-	CBCT	3

Fifth Semester				**Sixth Semester**		
Course Code	**Course Title**	**Cr.**		**Course Code**	**Course Title**	**Cr.**
BI 321	Molecular Biology	3		BI 322	Molecular Genetics	3
BI 323	Developmental Biology	3		BI 324	Genetic Engineering	3
BI 325	Analytical Techniques	3		BI 326	Immunology	3
BI 327	Bioprogramming and Biostatistics	3		BI 328	Biological Database Management System	2
BI 331	Laboratory on Enzymology	2		BI 330	Computational Biology	3
BI 333	Laboratory on Molecular Biology	2		BI 334	Laboratory on Immunology	2
BI 335	Biochemistry - II	2		BI 336	Laboratory on Genetic Engineering	2
				BI 338	Seminar - I	1

Seventh Semester				**Eighth Semester**		
Course Code	**Course Title**	**Cr.**		**Course Code**	**Course Title**	**Cr.**
BI 421	Structural Bioinformatics	3		BI 422	Genomics and Proteomics	3
BI 423	Cell and Tissue Culture	3		BI 424	Bioethics, Biosafety and IPR	2
BI 425	Bioinformatics Software and Algorithms	2		BI 426	Elective - II: Metagenomics/ Toxinology/Pharamcogenomics/ Evolutionary Genomics	3
BI 427/ 429/ 431 / 433	Elective - I : Animal Biotechnology / Microbial Biotechnology / Plant Biotechnology /Nano Biotechnology	3		BI 434	Virology	2
BI 435	Fermentation and Bioprocess Engineering	2		BI 438	Laboratory on Applied Bioinformatics	3
BI 437	Laboratory on Cell and Tissue Culture	2		BI 440	Laboratory on Gnomics and Proteomics	3
BI 439	Laboratory on Bioprocess Engineering	2		BI 442	Seminar - II	2
-	CBCT	3		-	CBCT	3

Ninth Semester				Tenth Semester		
Course Code	**Course Title**	**Cr.**		**Course Code**	**Course Title**	**Cr.**
BI 521	Project -I	16		BI 522	Project -II	16
BI 525	Seminar - III	1		BI 526	Seminar - IV (Project Outcome)	2
-	CBCT	3				

Courses offered in M. Sc. in Molecular Biology and Biotechnology

First Semester				Second Semester		
Course Code	**Course Title**	**Cr.**		**Course Code**	**Course Title**	**Cr.**
BT 401	Biochemistry	3		BT 411	Immunology	3
BT 402	Cell and Developmental Biology	3		BT 412	Microbiology and Industrial Applications	3
BT 403	Molecular Biology	3		BT 413	Genetic Engineering	4
BT 404	Analytical Techniques	3		BT 414	Genetics	3
BT 405	Biostatistics and Computer Applications	3		BT 415	Genomics and Proteomics	3
BT 406	Seminar / Journal Club / Assignment	1		BT 416	Seminar / Journal Club / Assignment	1
BT 407	Laboratory-I: Biochemistry and Analytical Techniques	3		BT 417	Laboratory-III: Immunology	2
BT 408	Laboratory-II: Molecular Biology	3		BT 418	Laboratory-IV: Microbiology	2
-	CBCT	3		BT 419	Laboratory-V: Genetic Engineering	2

Third Semester				Fourth Semester		
Course Code	**Course Title**	**Cr.**		**Course Code**	**Course Title**	**Cr.**
BT 420	Bioprocess Engineering and Technology	3		BT 426	Bioentrepreneurship	3
BT 421	Immunotechnology	2		BT 427	Project Work	12
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				

Electives Courses offered by the department						
Course Code	**Course Title**	**Cr.**		**Course Code**	**Course Title**	**Cr.**
BT 429	Microbial Technology	3		BT 437	Environmental Biotechnology	3
BT 433	Animal Biotechnology	3		BT 439	Nanobiotechnology	3
BT 435	Plant Biotechnology	3				

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

PHYSICS
(Year of Establishment: 1998)

Department of Physics was established in 1998. It 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.

Programmes offered

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

Faculty and Areas of Interest

Professors	
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)-HoD	*Dusty Plasma Physics, Laser-Plasma Interaction*
Pritam Deb,* Ph.D. (JU)	*Nanoscience and Nano Technology, Physics of Materials*
Associate Professors	
Gazi Ameen Ahmed,* Ph.D. (GU)	*Laser Physics, Optoelectronics*
Dambarudhar Mohanta,* Ph.D. (TU)	*Condensed Matter Physics, Nanoscience*
Pralay Kumar Karmakar,* Ph.D. (GU)	*Plasma Physics, Astrophysics, Nonlinear Dynamics*
Mrinal Kumar Das,* Ph.D. (GU)	*Theoretical High Energy Physics, Physics Beyond Standard Model, Neutrino Physics, BAU, Dark Matter*
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*
Rupjyoti Gogoi,* Ph.D. (GU)	*Astrophysics*
Shyamal Kumar Das,* Ph.D. (IISc)	*Material Science*
Ritupan Sarmah, Ph.D. (IISc)	*Computational Material Science*
Moon Moon Devi, Ph.D. (TIFR)	*Experimental High Energy and Astro-particle Physic,s Neutrino Physics UHE Cosmic Rays and Extensive Air Showers Detector Instrumentation and Data Acquisition*
DST Inspire Faculty	
Arup Jyoti Choudhury, Ph.D. (GU)	*Low Temperature Plasma Processing*

Recognized Supervisor # Recognized Co-supervisor

LEGENDS: *, **IITK**-Indian Institute of Technology Kanpur, **GU**-Gauhati University, **DU^**-Delhi University, **JU**-Jadavpur University West Bengal, **TU**-Tezpur University, **DU**-Dibrugarh University, **GU^**-Gorakhpur University Uttar Pradesh, **IISc**-Indian Institute of Science Bangalore, **TIFR**– Tata Institute of Fundamental Research Mumbai, **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, 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

- Number of papers published in the year 2017-2018 : 55
- Number. of ongoing research projects: 14
- Number of current Ph.D. scholars: 58

Selected Publications

Boruah M. J., Gogoi A., Nath B. C. and Ahmed G. A., Light scattering studies of randomly oriented polycrystalline fayalite micro particles as interstellar dust analogues, *Journal of Quantitative Spectroscopy & Radiative Transfer*, 196, 213-221, 2017.

1. Das S.K., Mahapatra S. and Lahon H., Aluminium-ion Batteries: Developments and Challenges, *Journal of Materials Chemistry* A, 5, 6347-6367, 2017.
2. Sarma R. and Mohanta D., Anomalous carrier life-time relaxation mediated by head group interaction in surface anchored MnSe quantum dots conjugated with albumin proteins, *Materials Chemistry and Physics*, 187, 46-53 , 2017.
3. Bora N. and Biswas R., Quantifying Regional Body Wave Attenuation in a Seismic Prone Zone of Northeast India, *Pure and Applied Geophysics*, 174, 1953-1963, 2017.
4. Chetia L., Kalita D. and Ahmed G. A., Enhanced photocatalytic degradation by diatom templated mixed phase titania nanostructure, *Journal of Photochemistry and Photobiology A: Chemistry*, 338, 134–145, 2017.

Courses offered in Integrated B.Sc.B.Ed. (with major in Physics)

First Semester				Second Semester		
Course Code	**Course Title**	**Cr.**		**Course Code**	**Course Title**	**Cr.**
PD 101	Physics-I	3		PD 102	Physics-II	3
CD 101	Chemistry-I	4		CD102	Chemistry-II	4
BD 101	Biology-I	3		BD102	Biology-II	3
MD 101	Mathematics-I	3		MD 102	Mathematics-II	3
ED 104	Communicative English	3		NS 106	National Service Scheme/NCC	2
ED 105	Basics in Computer Application	3		ED 107	Education and Development	3
ED 106	Education: An Evolutionary Perspective	3		-	CBCT	3

Third Semester				Fourth Semester		
Course Code	**Course Title**	**Cr.**		**Course Code**	**Course Title**	**Cr.**
PD 203	Classical Mechanics	3		PD 205	Electromagnetism	3
PD 211	Quantum Physics	3		PD 214	Electronics	3
PD 297	Laboratory -I	4		PD 216	Thermodynamics and Optics	3
PD 301	Mathematical Physics -I	3		PD 298	Laboratory-II	4
ED 202	Learner and Learning	3		PD 311	Waves and Acoustics	3
ED 205	Environmental Education	3		ED 203	Contemporary Issues in Education	3

MD211	Numerical Methods and Integrals	3		ED 204	Assessment and Evaluation	3
-	CBCT	3		MD 212	Introductory Statistics	3

Fifth Semester				Sixth Semester		
Course Code	**Course Title**	**Cr.**		**Course Code**	**Course Title**	**Cr.**
ED 301	Teaching Approaches and Learning Resources	3		PD 305	Thermodynamics and Statistical Physics	3
ED 302	Classroom Organization and Management	3		PD 307	Basic Material Science	3
PD 202	Introductory Quantum Mechanics	3		PD 308	Laser Physics	3
PD 303	Physical and Geometrical Optics	3		PD 314	Measurement Physics	3
PI 398	Laboratory-III	4		ED 303	School Education in North East India	2
-	CBCT	3		ED 308	Pedagogy A: Physical Science I	3
				ED307/ ED309	Pedagogy B: Mathematics I / Pedagogy B: Biological Science I	3
				-	CBCT	3

Seventh Semester				Eighth Semester		
Course Code	**Course Title**	**Cr.**		**Course Code**	**Course Title**	**Cr.**
PD 204	Atomic and Nuclear Physics	3		PD 497	Laboratory V	4
PD 315	Mathematical Physics II	3		ED 405	School Internship II (16 weeks)	12
PD 495	Laboratory IV	3		-	CBCT	3
ED 404	Initial School Experiences/ 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				

Courses offered in Integrated M. Sc. in Physics

First Semester				Second Semester		
Course Code	**Course Title**	**Cr.**		**Course Code**	**Course Title**	**Cr.**
PI 101	Physics-I	3		PI 102	Physics-II	3
CI 101	Chemistry-I	4		CI 102	Chemistry-II	4
BI 101	Biology-I	3		BI 102	Biology-II	3
MI 101	Mathematics-I	3		MI 102	Mathematics-II	3
-	CBCT -I	3		NS 102	National Service Scheme	2

-	CBCT-II	3		-	CBCT -III	3
				-	CBCT -IV	3

Third Semester				Fourth Semester		
Course Code	**Course Title**	**Cr.**		**Course Code**	**Course Title**	**Cr.**
PI 203	Classical Mechanics	3		PI 205	Electromagnetism	3
PI 207	Physics Laboratory -I	4		PI 208	Physics Laboratory-III	4
PI 211	Quantum Physics	3		PI 214	Electronics	3
PI 217	Mathematical Physics -I	3		PI 216	Thermodynamics and Optics	3
PI 218	Modern Physics	3		PI 325	Thermodynamics and Statistical Physics	3
MI 211	Numerical Methods and Integrals	3		MI 212	Introductory Statistics	3
-	CBCT -V	3		-	CBCT -VI	3

Fifth Semester				Sixth Semester		
Course Code	**Course Title**	**Cr.**		**Course Code**	**Course Title**	**Cr.**
PI 315	Mathematical Physics -II	3		PI 307	Basic Material Science	3
PI 202	Introductory Quantum Mechanics	3		PI 317	Basic Computation Techniques	3
PI 204	Atomic and Nuclear Physics	3		PI 308	Laser Physics	3
PI 316	Introduction to Photonics	3		PI 311	Wave and Acoustics	3
PI 303	Physical and Geometrical Optics	3		PI 300	Project	4
PI 399	Physics Laboratory- V	4				

Seventh Semester				Eighth Semester		
Course Code	**Course Title**	**Cr.**		**Course Code**	**Course Title**	**Cr.**
PI 400	Physics Laboratory - VII	4		PI 302	Digital Electronics and Microprocessor	3
PI 403	Electrodynamics	3		PI 310	Statistical Physics	3
PI 413	Advanced Classical Mechanics	3		PI 402	Nuclear and particle Physics	3
PI 414	Quantum Mechanics	3		PI 417	Advanced mathematical Physics	3
PI 416	Condensed Mater Physics and Material Science - I	3		PI 450	Seminar	2
PI 499	Physics and Computational Laboratory-VI	4		PI 498	Physics Laboratory-VIII	4
-	CBCT -VII	3		-	CBCT -VIII	3

Ninth Semester				Tenth Semester		
Course Code	**Course Title**	**Cr.**		**Course Code**	**Course Title**	**Cr.**
PI 551	Advanced Electrodynamics	3		PI 500	Project-II	10
PI 552	Quantum Mechanics- II	3		PI 553	Atomic and Molecular Spectroscopy	3
PI 599	Project-I	6		-	Elective- III	3
-	Elective -I	3		-	Elective- IV	3
-	Elective- II	3				
-	CBCT -IX	3				

Elective Courses offered by the Department in Semester IX and X					
Course Code	**Course Title**	**Cr.**	**Course Code**	**Course Title**	**Cr.**
PI 412	Plasma and Astrophysics	3	PI 517	Microwave Systems and Antenna Propagation	3
PI 501	Quantum Field Theory	3	PI 518	General Theory of Relativity	3
PI 502	Quantum Electrodynamics	3	PI 519	Surface Science	3
PI 505	Basic Astronomy and Astrophysics	3	PI 520	Nanostructures	3
PI 506	Introduction to Cosmology	3	PI 521	Fundamentals of Plasma Physics	3
PI 507	Digital Signal Processing	3	PI 522	Plasma Generation and Diagnostics	3
PI 508	Digital Communication Systems	3	PI 546	Fourier Optics and Holography	3
PI 509	Fiber Optics and Optoelectronics	3	PI 554	Soft Condensed Matter Physics	3
PI 510	Advanced Material Science	3	PI 555	Particle Physics - I	3
PI 511	Superconductivity and Critical Phenomena	3	PI 556	Particle Physics - II	3
PI 513	Physics of Thin Films	3	PI 557	Photonics	3
PI 514	Physics of Solid State Devices	3	PI 558	Quantum Electronics	3
PI 515	High Energy and Extragalactic Astrophysics	3	PI 559	Nanophotonics	3
PI 516	Microprocessors and Digital Signal Processing Based Systems	3	PI 560	Optical Metrology	3

Courses offered in M. Sc. in Physics

First Semester				Second Semester		
Course Code	**Course Title**	**Cr.**		**Course Code**	**Course Title**	**Cr.**
PH 400	Physics and Computational Laboratory	4		PH 411	Statistical Physics	3
PH 408	Electromagnetic Theory	3		PH 412	Digital Electronics and Microprocessor	4
PH 416	Condensed Matter Physics and Material Science-I	3		PH 415	Nuclear Theory and Particle Physics	3
PH 417	Advanced Classical Mechanics	3		PH 419	Advanced Mathematical Physics	3

PH 418	Quantum Mechanics-I	3		PH 455	Seminar	2
PH 498	Physics Laboratory-I	4		PH 499	Physics Laboratory-II	4
-	CBCT -VII	3		-	CBCT -VIII	3

Third Semester				Fourth Semester		
Course Code	**Course Title**	**Cr.**		**Course Code**	**Course Title**	**Cr.**
PH 500	Project -I	5		PH 553	Atomic and Molecular Spectroscopy	3
PH 551	Advanced Electomagnetic Theory	3		PH 599	Project - II	10
-	Elective -I	3		-	Elective- III	3
-	Elective- II	3		-	Elective - IV	3
-	CBCT -IX	3				

Electives Courses offered by the Department in Semester III and Semester IV						
Course Code	**Course Title**	**Cr.**		**Course Code**	**Course Title**	**Cr.**
PH 510	Fiber Optics and Optoelectronics	3		PH 541	Plasma and Astrophysics	3
PH 514	Superconductivity and Critical Phenomena	3		PH 542	Nanostructures	3
PH 517	Physics of Solid State Devices	3		PH 543	Surface Science	3
PH 519	Quantum Field Theory	3		PH 554	Soft Condensed Matter Physics	3
PH 522	Communication Systems	3		PH 555	Particle Physics-I	3
PH 524	Digital Signal Processing	3		PH 556	Particle Physics-II	3
PH 525	Microprocessors and Digital Signal Processing Based Systems	3		PH 557	Photonics	3
PH 532	Quantum Electrodynamics	3		PH 558	Quantum Electronics	3
PH 533	General Theory of Relativity	3		PH 560	Optical Metrology	3
PH 536	Basic Astronomy and Astrophysics	3		PI 517	Microwave systems and Antenna Propagation	3
PH 537	High Energy and Extragalactic Astrophysics	3		PI 542	Fundamentals of Plasma Physics	3
PH 538	Introduction to Cosmology	3		PI 543	Plasma Generation and Diagnostics	3
PH 539	Advanced Condensed Matter Physics and Material Science	3		PI 546	Fourier Optics and Holography	3
				PI 559	Nanophotonics	3

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

CENTRE FOR ASSAMESE STUDIES

(Year of Establishment: 2011)

Centre for Assamese Studies was established in 2011. The prime aim of the Centre is to undertake and foster intensive and innovative study and research in Assamese Language, Literature and Culture in their varied dimensions adopting a wide perspective and all-encompassing worldview. The vision of the centre is to be a research centre of Assamese language, literature, culture and tradition.

Programme offered

1. Ph.D.

Faculty and Areas of Interest

Professor & Head in charge		
1.	Prasanta Kr. Das	*American Literature, Indian Writing in English*
Assistant Professor		
1.	Juri Dutta , Ph.D. (RGU)	*Regional Literatures of India, Translation Studies and Comparative Literature, Creative Writing*

*LEGENDS: **RGU**-Rajiv Gandhi University Arunachal Pradesh, **HoD**– Head of the Department*

Research Activities

- No. of papers published in the year 2017– 2018: 03
- No. of current Ph.D. scholars: 02 (Dr. Bhupen Hazarika Fellows)

Facilities:

Departmental Library

Centre's Digital Archive

Research Activities:

No. of papers published in the year 2017-18: **03**

No. of current Ph.D scholars: **02** (Dr. Bhupen Hazarika Fellows)

Selected Publications:

1. Dutta, Juri. , July - August 2017. "*Ideological Conflicts in Birendra Bhattacharya's fiction*" in *Muse India* (No.74), ISSN: 0975-1815.
2. Dutta, Juri. May 2017. "*Translation of Literature and National Integration: A Re-appraisal*" in *International Education and Research Journal* (E-ISSN: 2454-9916) – a peer-reviewed Multi-disciplinary International Research Journal, Volume 3 Issue 5.

3. Dutta, J. April-September, 2017. "*Tathya aru Satyar Bistrrita Anusandhan: Alpana Sarkar Deakar Unabimsa Satikar Patabhumit Asamiya Nari, Eti Alocana*" in Aallap edited by Sanjib Pol Deka, Vol I, Pp 294-300, Bandhav.

Selection procedure for Ph.D programme (Dr. Bhupen Hazarika Fellowship):

- Separate advertisement for Dr. Bhupen Hazarika Fellowship will be published in the university website.
- General criteria as per UGC Guidelines for admission into Ph.D programme.
- Candidates shortlisted based on the written test shall be called for personal interview. The past academic background and research experience shall also be taken into consideration.

CENTRE FOR DISASTER MANAGEMENT

(Year of Establishment:1997)

The Centre for Disaster Management was established in 1997 under the Central Sector Scheme of NDM Division, Ministry of Agriculture and Cooperation, Government of India. The scheme has subsequently been transferred to the Ministry of Home Affairs, Government of India during 2002. At present the Centre is functioning under Tezpur University. The Centre is involved in conducting training, workshops, and conferences on different aspects of Disaster Management for different target groups.

The Centre is also offering optional courses on Disaster Management at UG and PG levels. One Post Graduate Diploma Programme on Environment and Disaster Management is being offered by the Centre in association with Department of Environmental Sciences under CODL of Tezpur University.

Faculty and Areas of Interest

Assistant Professor		
1.	Dipak Nath, Ph. D. (GU)	*Disaster Risk Assessment and Risk Mitigation Approaches*

LEGENDS: ***GU****-Gauhati University*

Research Activities

Selected Publications

1. Nath, R. D. and Nath, D, Women's Movement for Human Rights in India and Bangladesh: A Sociological Analasis, Intellection: a bi-annual interdisciplinary research journal, 3(1), 2015.
2. Nath, R. D. and Nath, D, Comprehensive model for Health Risk Assesment with a case study on Three Rural Communities of Chachar District, Assam, India, Journal of International Academic Research for Multidisiplinary, 4(2),224-239, 2016.

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

CENTRE FOR ENDANGERED LANGUAGES
(Year of Establishment: 2014)

The University was awarded with the Centre for Endangered Languages by the Ministry of Human Resource Development in 2014. This is the nodal centre for the consortium of North East India comprising Tezpur University, Rajiv Gandhi University and Sikkim University. Since the Department of English and Foreign Languages offers MA in Linguistics and Language Technology, the Centre has been attached to the Department.

Programmes offered

1. Certificate programme in Endangered Languages

2. MA in Linguistics and Endangered Languages

Faculty and Areas of Interest

Coordinator		
1.	Madhumita Barbora,* Ph.D. (TU)	*Linguistics (Syntax, Psycholinguistics), Field Linguistics, Documentation*
Assistant Professors		
1.	Bobita Sarangthem, Ph.D.(MU)	*Field Linguistics and Socio Linguistic*
2.	Monali Longmailai Ph.D. (NEHU)	*Morphology, Syntax, Typology, Historical Linguistics, Areal Linguistics and Tibeto-Burman Languages*
3.	Dhanapati Shougrakpam, Ph.D. (MU)	*Morphology, Semantics, Field Linguistics*

*** Recognized Supervisor**

LEGENDS: ***TU***– *Tezpur University,* ***MU****-Manipur University,* ***NEHU***– *North Eastern Hill University Shillong*

Facilities

The Centre has the following equipment available with them to be used for the research work:

- Apple iMac Workstation for Recording & Editing; YAMAHA 12XU 12 Channel Professional Mixing Console; Denon DN-4SOR Professional Grade Installed Recording Device; Presonus Audiobox i2 Soundcard; Presonus HP4 Headphone Amplifier; Video Camera full HD recording (MODEL: HTC-MDH2M); Video Camera (MODEL: HC-X1000); Camera (MODEL: COOLPIX P900); Recorder - Olympus LS-100 & Mobile – Samsung

1. The Centre has two laboratories for various purposes

- Phonetic Lab (With 20 seat capacity)
- Documentation Lab (Recording and Editing Suite)

2. The Centre has three smart class rooms and a Multipurpose Hall, well equipped for Workshops, Seminars and Conferences etc.

3. The Centre has number of books available for use for the Masters and Ph.D students for references.

Research Activities

- No. of papers published in the year 2017– 2018: 5

Selected Publications

i) The Centre published the First volume of Annual Technical Report, released by Professor Mihir Kanti Chaudhuri, Former Vice Chancellor, Tezpur University on 16 May, 2017

ii) 6 Learners book on the endangered languages that the staff have been working on, are in press.

iii) 3 volumes on Phonology, Morphology and Syntax (of these 7 endangered languages) are forthcoming.

iv) Proceedings of HLS23 are in the process of printing.

- Outreach activities of the Centre as research work:

The faculty, research associates and field assistants of the Centre are divided into six (6) groups for collection of data from some of the endangered languages of the Northeast Region. Till date five (5) field works have been conducted by the 6 groups. The staff went for field work to Manipur, Nagaland and Dima Hasao Area and Tinsukia District of Assam for collection of data. The table below shows the details:

Sl. No.	State	Groups	Chosen Endangered Language
1	Assam	1. Dima Hasao Areas	Biate
		2. Dima Hasao Areas	Khelma
		3. Dima Hasao Areas	Krangkhol
2	Manipur	4. Senapati District	Oinam
		5. Kangpokpi District	Purum
3	Nagaland	6. Tening, Peren District	Liangmai

- Phonetic analysis, sound segmentation, language description and grammar are in process of completion.
- Publication of books and dictionaries are under process.

Courses offered in M.A. in Linguistics and Endangered Languages (offered by CFEL)

First Semester				Second Semester		
Course Code	**Course Title**	**Cr.**		**Course Code**	**Course Title**	**Cr.**
LE401	Phonetics and Phonology	4		LE402	Syntax	4
LE403	Basic Morphology	4		LE404	Linguistic Theories	4
LE405	Basic Semantics and Pragmatics	4		LE406	Field Linguistics and Archiving	4
LE407	Basic Syntax	4		LE408	Language Endangerment and Revitalization	4
	CBCT-I	3		-	CBCT-II	3

Third Semester				Fourth Semester		
Course Code	**Course Title**	**Cr.**		**Course Code**	**Course Title**	**Cr.**
LE501	Sociolinguistics	4		LE502	Research Methodology	4
LE503	Language Typology and Language Universals	4		LE504	Historical Linguistics	4
LE505	Structure of Indian Languages	4		LE506	Analysis of Endangered Languages	4
-	Elective- I	4		-	Elective- II	4
-	CBCT-III	3		-	CBCT-IV	3

Elective -I (Any One from the following Courses)				Elective -II (Any One from the following Courses)		
Course Code	**Course Title**	**Cr.**		**Course Code**	**Course Title**	**Cr.**
LE507	Lexicography	4		LE508	Developing Writing System	4
LE509	Multilingualism and Language Policy	4		LE510	Ethnolinguistics and Language Endangerment	4
LE511	Language Documentation and Description	4		LE512	Advanced Field Linguistics and Archiving	4
LE513	Acoustic Phonetics: Instrumental Techniques and Data Analysis	4		LE514	Experimental Phonology	4
LE515	Generative Syntax	4		LE516	Minimalist Syntax	4
LE517	Advanced Cognitive Linguistics-I	4		LE518	Formal Semantics	4
				LE520	Advanced Cognitive Linguistics-II	4

* *LE 516 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'.

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

CENTRE FOR INCLUSIVE DEVELOPMENT

(Year of Establishment: 2014)

As enshrined in the *Tezpur University Act* 1993, one of the prime objectives of the University 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 its 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, ST/SC Cell,* and the *Training and Placement Cell* which have a good deal of functional commonality. It is envisioned that an invigorated approach to this purpose would be achieved by consolidating the activities and collating the humane and intellectual resources of these three cells. Headed by its Director, the Centre is intended to act as a catalyst to holistic development of students and an interface between Higher Education and Community Development.

Programmes offered

1. Certificate Course in Technical Writing
2. P.G. Diploma in Child Rights and Governance (in collaboration with UNICEF)

Faculty and Areas of Interest

Director		
1.	Rajeev Kumar Doley, Ph.D. (IITG)	*Sociolinguistics*
Assistant Professor		
1.	Subhrangshu Dhar, Ph.D. (VB)	*Child Rights, Human Rights*
2.	Hoimawati Talukdar, MCJ (TU), MA (IITG)	*Governance*

LEGENDS: ***IITG–*** *Indian Institute of Technology Guwahati,* ***DU****-Dibrugarh University,* ***VB****- Vivsa-Bharatai Santiniketan,* ***TU****- Tezpur University*

Facilities

The Centre has well-equipped class rooms and a 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.

Research Activities

- No. of papers published in the year 2017– 2018: 1

Courses offered in P.G. Diploma in Child Rights and Governance

First Semester				Second Semester		
Course Code	**Course Title**	**Cr.**		**Course Code**	**Course Title**	**Cr.**
CG 401	Understanding Childhood	4		CG 406	Governance and Social Policy	4
CG 402	Child Rights as Human Rights- Paper I	4		CG 407	Child Rights as Human Rights- Paper II	4
CG 403	Exclusion and Vulnerabilities of Children with special focus on North East	4		CG 408	Doing Research in Child Rights	4
CG 404	Governance and Child Rights	4		CG 409	Project/Internship	4
CG 405	Communication Skills (English)	4				

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

CENTRE FOR OPEN AND DISTANCE LEARNING

(Year of Establishment: 2011)

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 postgraduate, diploma and certificate programmes in emerging areas of science, 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.

Faculty and Areas of Interest

Professor and Director		
1.	Debabrata Das,* Ph.D. (RGU)	Financial Management, Financial Markets and Development Finance
Assistant Professor		
1.	Sanjib Sahoo,* Ph.D. (TU)(Part-time)	Indian Writing in English, Eco Criticism
2.	Suchibrata Goswami, Ph.D. (DU)	American Literature, Post-Colonial Writing
3.	Pragya Sharma, M.A. (TU)	Advertising and Public Relations, Television Reporting
Programme Coordinators		**Programmes**
1.	Uttam Kumar Pegu*, Ph.D. (JMI)	M.A. in Mass Communication
2.	Amiya Kumar Das, Ph.D. (TU)	P.G. Diploma in Governance and Development
3.	Suryakant Tripathi*, Ph.D. (BHU)	P.G. Diploma in Functional Hindi
4.	Runumi Das, Ph.D. (GU)	P.G. Diploma in Retail Management P.G. Diploma in Human Resource Management P.G. Diploma Investment Management
5.	Dipak Nath, Ph.D. (GU) Nirmali Gogoi*, Ph.D. (DU)	P.G. Diploma in Environmental Management
6.	Shuvam Sen*, Ph.D. (IITG)	M.A/ M.Sc. in Mathematics
7.	Sadhan Mahapatra, Ph.D.(IISc)	P.G. Diploma in Renewable Energy and Energy Management (REEM)

*** Recognized Supervisor**

LEGENDS: ***RGU****-Rajiv Gandhi University Arunachal Pradesh,* ***TU****- Tezpur University,* ***JMI****- Jamia Milla Islamia New Delhi,* ***BHU****- Banaras Hindu University Uttar Pradesh,* ***GU****- Gauhati University,* ***DU****-Dibrugarh University,* ***IITG****- Indian Institute of Technology Guwahati,* ***IISc****- Indian Institute of Science Bangalore*

Administrative Officer

Name	Designation
Partha Pratim Kalita, MBA (TU)	Assistant Registrar

Study Centres of CODL

(a) Tezpur (Tezpur University)	(b) Guwahati	(c) Dibrugarh
Contact: 8486745160	B. Barooah College, Ulubari	DHSK College
Napaam, Sonitpur - 784028	Guwahati– 781007	Dibruagarh—786001
Contact: 03712 – 275350/57	Contact: 8638167719	Contact: 99544-81785

Academic Session

The Academic Session for the programmes under Distance Education 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

(a) 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 separately in the official website http://www.tezu.ernet.in./tu_codl

(b) Admission procedure: The online applications for admission, duly filled in and completed in all respects, must be submitted on or before the last date specified for the purpose. Fee must be paid at the time of online application.

(c) 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.

(d) 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. However, CODL will not be responsible if examination and timings of two different courses coincides.

(e) Reservation of Seats: Wherever applicable the relevant Govt. of India rules on reservation shall be adhered to.

(f) 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.

(g) 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.

Degree and Diploma Programmes offered by CODL						
Sl. No.	**Programme**	**Eligibility**	**Department and School**	**Fees in Rupees**	**Duration (Number of semesters)**	
					Min	**Max**
1	M.A. in Mass Communication	Bachelor's degree in any discipline	Mass Communication and Journalism(School of Humanities and Social Sciences)	12,500/-	4	8
2	P.G. Diploma in Human Resource Management	Bachelor's degree in any discipline	Business Administration (School of Management Sciences)	7,500/-	2	4
3	P.G. Diploma in Renewable Energy and Energy Management	BE/ B. Tech or MSc in in Physics or Chemistry	Energy (School of Engineering)	8500/-	2	4
4	P.G. Diploma in Environmental and Disaster	Bachelor's degree in any discipline	Environment Science (School of Sciences) and Business Administration (School of	8500/-	2	4

	Management		Management Sciences)			
The following programmes have been held in abeyance for the time being						
1	P.G. Diploma in Retail Management	Bachelor's degree in any discipline	Business Administration (School of Management Sciences)	7,500/-	2	4
2	P.G. Diploma Investment Management	Bachelor's degree in any discipline	Business Administration (School of Management Sciences)	7,500/-	2	4
3	P.G. Diploma in Functional Hindi	Bachelor's degree in any discipline	Hindi (School of Humanities and Social Sciences)	6,800/-	2	4
4	M.Sc. in Mathematics	Bachelor's degree with Mathematics major/ honours in Mathematics Or Bachelor's degree in mathematics as one of the main subjects	Mathematical Science (School of Science and Technology)	11,000/-	4	8
5	P.G. Diploma in Governance and Development	Bachelor's degree in any discipline	Sociology (School of Humanities and Social Sciences)	6,800/-	2	4

Upcoming programmes to be introduced by CODL		
Sl no.	**Programme name**	**Eligibility**
1.	M.A. in English	Bachelor's degree in any discipline
2.	M.A. in Sociology	Bachelor's degree in any discipline
3.	M.A. in Education	Bachelor's degree in any discipline

All the Degrees and Diplomas programmes offered by CODL are permitted and recognized by University Grants Commission, New Delhi.

For more information one can visit the departmental website http://www.tezu.ernet.in/tu_codl or call 03712-275350/57

TEACHING LEARNING CENTRE
(Year of Establishment: 2016)

The Teaching Learning Centre (TLC), Tezpur University was inaugurated in January, 2016 as a Centre of Excellence for Curriculum and Pedagogy under the Pandit Madan Mohan Malaviya National Mission on Teachers and Teaching (PMMMNMTT) scheme. The scheme is funded by Department of Higher Education, MHRD, GoI. TLC envisages developing and promoting a responsive and relevant teaching–learning system for higher education communities and contributing to excellence in teaching and learning as an innovative and resourceful Centre through the optimal use of technology.

Among the objectives of the TLC are:

- To organize workshops and seminars to facilitate capacity building and professional development of teachers.
- To provide assistance and support for promoting best practices in teaching learning environment through research and dissemination of already generated knowledge.
- To generate and maintain learning materials and resources for easy access to learners and teachers.
- To develop discipline specific (pedagogy, language and social sciences) curricular framework for professional development Programme
- To prepare an outline of different pedagogy and scheme of assessment and evaluation method of different disciplines.

The target group of TLC, Tezpur University are College and University Level Teachers and Researchers and PG Students.

Faculty and Areas of Interest

Director-in-Charge		
1.	Prof. M. K. Sarma, PhD (TU)	Research Methodology, Services Marketing, Tourism Marketing
Assistant Professor		
1.	Swapnarani Bora, PhD (DU)	*Folklore, Sociolinguistics, Assamese Studies*
2.	Ikbal Hussain Ahmed, M.Phil. (DU*)	*Evolutionary Ethics, Environmental Ethics, Symbolic Logic, Philosophy of Education*
Research Associate		
1	Bhushita Patowari, PhD (GU)	*Survey Sampling & Statistical Epidemiology*

LEGENDS: ***TU–****Tezpur University,* ***DU-****Dibrugarh University, DU*- Delhi University, GU- Gauhati University*

Major facility: One ICT Lab.

Teachers trained: Total 61

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 Women's Study Centre (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. P.G. Diploma in Women's Studies

Faculty and Areas of Interest

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

1. No. of papers published in the year 2017– 2018: 2
2. No. of ongoing research projects: 1

Selected Publications

1. Goswami, M. Status and Challenges of the Northeast Women: Quest for New Humanity. Academic Discourse, Vol 6 issue 2, 2018.
2. Goswami, M. Food Culture: A Space for Creativity, Protest and Negotiation. Journal of Ethnic Foods, Vol 4 issue 5, 2018.

Courses offered in P.G. Diploma in Women's Studies

First Semester				Second Semester		
Course Code	**Course Title**	**Cr.**		**Course Code**	**Course Title**	**Cr.**
WS 103	Women's Movement in India	4		WS 107	Women's Studies and Research Methodology	4
WS 104	Introducing Women's Studies	4		WS 108	Women and Law	3
WS 105	Women in Media	4		WS 109	Women and Development	3
WS 106	Women and Health	4		WS 110	Project Work/Dissertation	6

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

SECTION- V

Important dates, fee structure, forms and contact details

IMPORTANT DATES

1	Online portal opens on	February 20, 2018
2	Online application closes on	April 06, 2018
3	Date of Examinations	June 08 to June 10, 2018
3	Declaration of results	June 25, 2018 (Tentative)
4	Date of admission and course registration	July 23-26, 2018 (Tentative)
5	Starting of classes	July 27, 2018

SEMESTER WISE FEE For the students to be admitted in 2018

Particulars	1st Semester	2nd Semester	3rd Semester	4th Semester	5th Semester	6th Semester	7th Semester	8th Semester	9th Semester	10th Semester	Refundable (included in the fees of 1st semester)
Integrated M.Com	18360.00	10060.00	10060.00	10060.00	10060.00	10060.00	10060.00	10060.00	10060.00	10060.00	6500.00
Integrated M. A.	18360.00	10060.00	10060.00	10060.00	10060.00	10060.00	10060.00	10060.00	10060.00	10060.00	6500.00
Integrated M. Sc. (Physics, Mathematics)	20860.00	12560.00	12560.00	12560.00	12560.00	12560.00	12560.00	12560.00	12560.00	12560.00	6500.00
Integrated M. Sc. (Chemistry, Bioscience & Bioinformatics)	22060.00	13760.00	13760.00	13760.00	13760.00	13760.00	13760.00	13760.00	13760.00	13760.00	6500.00
Integrated B.A.B.Ed.	18360.00	10060.00	10060.00	10060.00	10060.00	10060.00	10060.00	10060.00	-	-	6500.00
Integrated B.Sc.B.Ed. (Physics, Mathematics)	20860.00	12560.00	12560.00	12560.00	12560.00	12560.00	12560.00	12560.00	-	-	6500.00
Integrated B.Sc.B.Ed. (Chemistry)	22060.00	13760.00	13760.00	13760.00	13760.00	13760.00	13760.00	13760.00			6500.00
B. Tech. (CSE, ECE. ME, CE, EE)	32360.00	24060.00	24060.00	24060.00	24060.00	24060.00	24060.00	24060.00	-	-	6500.00
B. Tech. (FET)	33560.00	25260.00	25260.00	25260.00	25260.00	25260.00	25260.00	25260.00	-	-	6500.00
B. Voc.	20860.00	12560.00	12560.00	12560.00	12560.00	12560.00	-	-	-	-	6500.00
Master of Computer Application	23860.00	15560.00	15560.00	15560.00	15560.00	15560.00	-	-	-	-	6500.00
B.Ed.	19860.00	11560.00	11560.00	11560.00	-	-	-	-	-	-	6500.00
M. A. (except M.A. in Mass Communication & Journalism)	18360.00	10060.00	10060.00	10060.00	-	-	-	-	-	-	6500.00
M. Com.	18360.00	10060.00	10060.00	10060.00							6500.00
M. Sc. (Physics, Mathematics)	19060.00	10760.00	10760.00	10760.00	-	-	-	-	-	-	6500.00
M. Sc. (Chemistry, MBBT, Environmental Science)	20260.00	11960.00	11960.00	11960.00	-	-	-	-	-	-	6500.00
M. Tech. (ME, IT, ELDT, Bioelectronics)	27860.00	19560.00	19560.00	19560.00	-	-	-	-	-	-	6500.00
M. Tech. (FET, Polymer Science & Technology, Energy Technology)	29060.00	20760.00	20760.00	20760.00	-	-	-	-	-	-	6500.00
M. A. in Mass Communication & Journalism	28860.00	19560.00	19560.00	19560.00	-	-	-	-	-	-	6500.00
Master of Tourism & Travel Management	22860.00	14560.00	14560.00	14560.00	-	-	-	-	-	-	6500.00
Certificate in Chinese	16660.00	8860.00	-	-	-	-	-	-	-		6500.00
PG Diploma in Translation	16860.00	9060.00	-	-	-	-	-	-	-	-	6500.00
PG Diploma in Women's Studies	22860.00	14560.00	-	-	-	-	-	-	-	-	6500.00
PG Diploma in Child Rights & Governance	22860.00	14560.00	-	-	-	-	-	-	-	-	6500.00

*** Fee is subject to change at any time**

SEMESTER WISE FEE UNDER SELF SUPPORTING SCHEME (SSS)

For the students to be admitted in 2018

Particulars	1st Semester	2nd Semester	3rd Semester	4th Semester	5th Semester	6th Semester	7th Semester	8th Semester	9th Semester	10th Semester	Refundable (included in the fees of 1st semester)
Integrated M.Com	32810.00	23910.00	23910.00	23910.00	23910.00	23910.00	23910.00	23910.00	23910.00	23910.00	6500.00
Integrated M.A.	32810.00	23910.00	23910.00	23910.00	23910.00	23910.00	23910.00	23910.00	23910.00	23910.00	6500.00
Integrated M. Sc. (Physics, Mathematics)	46310.00	37410.00	37410.00	37410.00	37410.00	37410.00	37410.00	37410.00	37410.00	37410.00	6500.00
Integrated M. Sc. (Chemistry, Bioscience & Bioinformatics)	52310.00	43410.00	43410.00	43410.00	43410.00	43410.00	43410.00	43410.00	43410.00	43410.00	6500..00
Integrated B.A.B.Ed.	32810.00	23910.00	23910.00	23910.00	23910.00	23910.00	23910.00	23910.00	-	-	6500.00
Integrated B.Sc.B.Ed. (Physics, Mathematics)	46310.00	37410.00	37410.00	37410.00	37410.00	37410.00	37410.00	37410.00	-	-	6500.00
Integrated B.Sc.B.Ed. (Chemistry)	52310.00	43410.00	43410.00	43410.00	43410.00	43410.00	43410.00	43410.00	-	-	6500..00
B. Tech. (CSE, ECE. ME, CE, EE)	82560.00	73660.00	73660.00	73660.00	73660.00	73660.00	73660.00	73660.00	-	-	6500.00
B. Tech. (FET)	88560.00	79660.00	79660.00	79660.00	79660.00	79660.00	79660.00	79660.00	-	-	6500.00
B. Voc.	46310.00	37410.00	37410.00	37410.00	37410.00	37410.00	-	-	-	-	6500.00
Master of Computer Application	39310.00	30410.00	30410.00	30410.00	30410.00	30410.00	-	-	-	-	6500.00
M. A. (except M.A. in Mass Communication & Journalism)	32810.00	23910.00	23910.00	23910.00	-	-	-	-	-	-	6500.00
M. Com.	32810.00	23910.00	23910.00	23910.00	-	-	-	-	-	-	6500.00
M. Sc. (Physics, Mathematics)	35310.00	26410.00	26410.00	26410.00	-	-	-	-	-	-	6500.00
M. Sc. (Chemistry, MBBT, Environmental Science)	41310.00	32410.00	32410.00	32410.00	-	-	-	-	-	-	6500.00
M. Tech. (ME, IT, ELDT, Bioelectronics)	39310.00	30410.00	30410.00	30410.00	-	-	-	-	-	-	6500.00
M. Tech. (FET, Polymer Science & Technology, Energy Technology)	45310.00	36410.00	36410.00	36410.00	-	-	-	-	-	-	6500.00
M. A. in Mass Communication & Journalism	59060.00	49160.00	49160.00	49160.00	-	-	-	-	-	-	6500.00
Master of Tourism & Travel Management	37810.00	28910.00	28910.00	28910.00	-	-	-	-	-	-	6500.00
Certificate in Chinese	26810.00	18410.00	-	-	-	-	-	-	-		6500.00
PG Diploma in Women's Studies	37810.00	28910.00	-	-	-	-	-	-	-	-	6500.00
PG Diploma in Child Rights & Governance	37810.00	28910.00	-	-	-	-	-	-	-	-	6500.00

*** Fee is subject to change at any time**

Prescribed Format of OBC(NCL) Certificate/As per Govt. format

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 / 93BCC(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 / 94BCC dated 19 / 10 / 94 published in the Gazette of India Extra ordinary Part I Section I No. 163 dated 20 / 10 / 94.

(iii) Resolution 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 / 94BCC 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 / 97BCC dated 03 / 12 / 97.

(vii) Resolution No. 12012 / 99 / 94BCC dated 11 / 12 / 97.

(viii) Resolution No. 12012 / 68 / 98BCC dated 27 / 10 / 99.

(ix) Resolution No. 12012 / 88 / 98BCC 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 / 99BCC 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 / 99BCC 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 / 2000BCC dated 06 / 09 / 2001.

(xiii) Resolution No. 12012 / 1 / 2001BCC dated 19 / 06 / 2003.

(xiv) Resolution No. 12012 / 4 / 2002BCC 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.36012/22/93Estt.(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.

Prescribed Format of Sponsorship/ No Objection Certificate for Ph. D. programme

(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. 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. programme at Tezpur University from the session starting from_____as a part time/full time candidate.

The employee will be relieved of his/her duties in the organization to join in the Ph.D. programme if he/she is selected as part time/full time candidate (not applicable to project fellow). The part time candidate will be allowed to stay on the campus for pursuing the course work (only for part time candidate)

Date: Signature_____

Place: Name_____

Official Seal of the employer

1. Verified by: Signature……Date……
   Name:……Designation……
2. Recommended/Not Recommended
   Signature: ……
   Name: ……..
   Chairperson, Selection Committee
   Head, Department of ……..
   Date……

(In letter head of the employer)

Format for No Objection Certificate (for other than Ph.D. programme)

This is to certify that Shri/Smt……..(Name and Address)……..is an employee of ……(Organization and Department) and he/she is presently holding the post of……as regular/temporary employee. He/She has been working in this Department since……..till date.

This is to certify that we have no objection to Shri/Smt……applying for the programme ……..in Tezpur University as a full time candidate. In the event of his/her selection for the said programme Shri/Smt……..shall be relieved from his/her duties.

Place

Date

Signature of Officer

Office

Office Seal

Prescribed Format of PRC/As per Government Format

Photo

GOVT. OF ASSAM

OFFICE OF THE DEPUTY COMMISSIONER

Seal of the issuing office

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

CONTACT DETAILS

For any query related to the admission to an Academic Programme in 2018, the concern Department/Centre may be contacted on the following contact number/E-mail ID:

Department/Office	Office Number*	Mobile Number** (HoD)	E-mail ID
Business Administration	275000	94353-80862	hod_ba@tezu.ernet.in
Centre for Assamese Studies	273240	94350-82113	cas@tezu.ernet.in
Centre for Inclusive Development	273252	99544-49475	rkdoley@tezu.ernet.in
Centre for Open and Distance Learning	275350	94350-15074	codl@tezu.ernet.in
Chandraprabha Saikiani Centre for Women's Studies	273235	98542-64780	wsctu@tezu.ernet.in
Chemical Sciences	275050	94351-81464	hod_chem@tezu.ernet.in
Civil Engineering	275950	98640-60200	hod_civil@tezu.ernet.in
Commerce	273290	94350-81446	hod_com@tezu.ernet.in
Computer Science and Engineering	275100	94350-84063	hod_cse@tezu.ernet.in
Cultural Studies	275150	94351-85424	hod_cul@tezu.ernet.in
Education	275650	70762-96461	hod_edu@tezu.ernet.in
Electrical Engineering	275256	99547-07774	jitend@tezu.ernet.in
Electronics and Communication Engineering	275250	94353-81270	hod_ece@tezu.ernet.in
Energy	275300	94353-80921	hod_ene@tezu.ernet.in
English and Foreign Languages	275200	94350-82112	hod_efl@tezu.ernet.in
Environmental Science	275600	94357-49354	hod_env@tezu.ernet.in
Food Engineering and Technology	275700	94351-81352	hod_fet@tezu.ernet.in
Hindi	275750	94351-85346	hod_hin@tezu.ernet.in
Law	275780	91010-05870	bkcy@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	96784-01587	hod_mech@tezu.ernet.in
Molecular Biology and Biotechnology	275400	99546-78888	hod_mbbt@tezu.ernet.in
Physics	275550	94350-45696	hod_phy@tezu.ernet.in
Social Work	275830	94350-12956	hod_sw@tezu.ernet.in
Sociology	275800	94351-44482	hod_soc@tezu.ernet.in
Teaching and Learning Centre	275680	94350-80384	tlc@tezu.ernet.in

**** Contact must be made during Office hours only.***

***** Mobile Number should be used during Office hours and in case of emergency only***

ENTRANCE EXAMINATION SCHEDULE

June 8, 2018 (10 AM to 12 Noon)	**June 8, 2018 (2 PM to 4 PM)**
1) Integrated M.Sc. in Mathematics/Integrated B.Sc. B.Ed. (Mathematics major) 2) M.A. in Social Work 3) P.G. Diploma in Translation (Hindi) 4) B.Ed. 5) M.A. in Linguistics and Endangered Languages 6) M.Tech. in Food Engineering and Technology 7) LLM 8) Ph.D. in Business Administration 9) Ph.D. in Chemical Sciences 10) Ph.D. in Civil Engineering	1) Integrated M.Sc. in Physics/Integrated B.Sc. B.Ed. (Physics major) 2) M.Tech. in Bioelectronics 3) Master of Tourism and Travel Management(MTTM) 4) M.Sc. in Chemistry 5) M.Sc. in Mathematics 6) M.A. in Sociology 7) Ph.D. in Cultural studies 8) Ph.D. in Environmental Science
June 9, 2018 (10 AM to 12 Noon)	**June 9, 2018 (2 PM to 4 PM)**
1) Integrated M.Sc. in Chemistry/Integrated B.Sc. B.Ed.(Chemistry major) 2) P.G. Diploma in Child Rights and Governance 3) M.Tech. in Mechanical Engineering 4) M.A. in Hindi 5) M.A. in Mass Communication and Journalism 6) Certificate in Chinese 7) M.Tech. in Electronics Design and Technology 8) Ph.D. in Education 9) Ph.D. in Physics 10) Ph.D. in Food Engineering & Technology	1) Integrated M.Sc. in Bioscience and Bioinformatics 2) M.Sc. in Environmental Science 3) M.Tech. in Polymer Science and Technology 4) M. Com. 5) M.Tech. in Civil Engineering 6) M.A. in Cultural Studies 7) Ph.D. in Sociology 8) Ph.D. in Molecular Biology and Biotechnology 9) Ph.D. in Mathematical Sciences 10) Ph.D. in Mechanical Engineering
June 10, 2018 (10 AM to 12 Noon)	**June 10, 2018 (2 PM to 4 PM)**
1) Integrated M.A. in English / Integrated B.A. B.Ed. (English major) 2) M.A. in Linguistics and Language Technology 3) M.A. in Education 4) M.Tech. in Energy Technology 5) P.G. Diploma in Women's Studies 6) M.A. in Communication for Development 7) M.Sc. in Physics 8) Ph.D. in Electronics and Communication Technology 9) Ph.D. in English and Foreign Languages 10) Ph.D. in Mass Communication and Journalism	1) M.Tech. in Information Technology 2) Master of Computer Application (MCA) 3) M.Sc. in Molecular Biology and Biotechnology 4) Integrated M. Com. 5) M.A. in English 6) Ph.D. in Computer Science and Engineering 7) Ph.D. in Energy 8) Ph.D. in Hindi