PROSPECTUS, AUTUMN 2017

TEZPUR UNIVERSITY

(A Central University)

www.tezu.ernet.in

Napaam, Tezpur, Assam 784028

1. GENERAL INFORMATION

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 sprawling, 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 and humanities, reflecting the objective of the University. At present, the University offers a number of Programmes on Under-Graduate Degree/Diploma/Certificate, 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 two years of its existence, the University has engaged itself in the process of capacity building, both in terms of infrastructure and human resource development. The University has mounted tremendous efforts in developing it into a modern University incorporating all elements from the contemporary scientific and socio-cultural milieu.

The University has already developed a number of state-of-the-art laboratories, computing facilities, internet connectivity, a dedicated power supply system with DG backup and a rich library having connectivity to several digital libraries. While students' accommodation is provided in 14 well-designed 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 (under construction), 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 and 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, has succeeded in achieving a number of prestigious accolades and awards. In the year 2016 only, the University has achieved several laurels. 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 is accorded as the *Visitor's Best University Award* for the year 2016 by the President of India. The University is also ranked 5th 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). Further, the University is placed in the top 601-800 Universities in the World University Rankings 2016-2017 conducted by the Times Higher Education (THE), London. Four

B.Tech. Programmes have also been accredited by NBA (National Board of Accreditation) for next 2 years.

1.3 Facilities and Services

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

1.3.1 Central Library

The University has a Central Library with a rapidly increasing collection of books, periodicals, journals and e-resources in all areas of Engineering, Sciences, Management, Social Science and Humanities. It is fully computerized with the LibSys software, which is an integrated multi-user library management system that supports all its in-house operations and modernized with barcoding based automation system that facilitates check-in, check-out and renewal of books. It has CCTV surveillance system for the safety of the library materials. The Central Library is providing access to e-resources and databases through the e-ShodhSindhu Consortia of INFLIBNET Centre and DeLCoN Consortium.

The Central Library subscribes an institutional membership of Developing Library Network (DELNET) and American Library Centre. Library users can access books, journal database, ETDs and other e-resources from any terminal within the University campus. The library at present holds one lakh documents besides more than 2155 CDs pertaining to different academic discourses. Library has added 10078 books in the 2015-16 financial year. Apart from the above resources, the Central Library also contains more than 1000 publications in TU Knowledge Repository and more than 300 Thesis in ETD Repository. The opening hour of the library is from 9 am – 12 midnight on all working days and 10 am - 9 pm on Saturdays and Sundays.

1.3.2 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.

1.3.3 Sophisticated Analytical Instrumentation Centre (SAIC)

The University established the Sophisticated Analytical Instrumentation Centre (SAIC) to cater 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.

1.3.4 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.

1.3.5 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. Ten indoor beds are also available for initial care of indoor cases including emergency cases. 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 and is provided free of cost. 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 Autoanalyser (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. The Medical Officers pay periodic visits to hostels and canteens to assess the prevailing hygiene of dining hall, water supply and surroundings to prevent the outbreak of waterborne diseases amongst boarders. 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.

1.3.6 Student Accommodation

The University provides separate accommodation for men and women students and research scholars, having more than 3300 capacity. The University also has a married research scholar's hostel of capacity for accommodating more than 30 married research scholars.

1.3.7 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.

1.3.8 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

1.3.9 Sports

The University provides opportunities for students to excel in various sports. 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.

1.3.10 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.

1.3.11 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.

1.3.12 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 2017 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 in association with the Equal Opportunity Cell 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/Diploma/Certificate Programmes

SN	Code	Programme	Department/Centre	School
1	101	B.Tech§. in Civil Engineering	Civil Engineering	Engineering
2	102	B.Tech#§. in Computer Science and Engineering	Computer Science and Engineering	
3	103	B.Tech. in Electrical Engineering	Electrical Engineering	
4	104	B.Tech#§. in Electronics and Communication Engineering	Electronics and Communication Engineering	
5	105	B.Tech#. in Food Engineering and Technology	Food Engineering and Technology	
6	106	B.Tech#§. in Mechanical Engineering	Mechanical Engineering	
7	107	B.Voc. in Renewable Energy Management	Energy	
8	108	B. Voc. in Food Processing	Food Engineering and Technology	
9	109	B.Ed.	Education	Humanities and Social Sciences
10	110	Certificate in Chinese	English and Foreign Languages	
11	111	Integrated B.A.B.Ed. (with major in English)	English and Foreign Languages	
12	112	Integrated M.A. in English		Humanities and Social Sciences
13	113	Certificate in Technical Writing*	Centre for Inclusive Development	
14	114	Certificate in Air Ticketing and Computerized Reservation System*	Business Administration	Management Sciences
15	115	Integrated M.Com.	Commerce	
16	116	Integrated B. Sc.B.Ed. (with major in Chemistry)	Chemical Sciences	Sciences
17	117	Integrated M.Sc. in Chemistry		
18	118	Integrated B.Sc.B.Ed. (with major in Mathematics)	Mathematical Sciences	
19	119	Integrated M.Sc. in Mathematics		
20	120	Integrated M.Sc. in Bioscience and Bioinformatics	Molecular Biology and Biotechnology	
21	121	Integrated B.Sc.B.Ed. (with major in Physics)	Physics	
22	122	Integrated M.Sc. in Physics		
23	123	Diploma in Paralegal Practice*	Community College	Community College

*Admission is made through the concerned Department.
NBA accredited as Tier -I Programme
§AICTE Approved

PG Degree/Diploma Programmes

SN	Code	Programme	Department /Centre	School
24	201	Master of Computer Application (M.C.A.)	Computer Science and Engineering	Engineering
25	202	M.Tech§. in Information Technology		
26	203	M.Tech§. in Bioelectronics	Electronics and Communication Engineering	
27	204	M.Tech§. in Electronics Design Technology		
28	205	M.Tech§. in Energy Technology	Energy	
29	206	M.Tech§. in Food Engineering and Technology	Food Engineering and Technology	
30	207	M.Tech§. in Mechanical Engineering	Mechanical Engineering	
31	208	M.A. in Cultural Studies	Cultural Studies	Humanities and Social Sciences
32	209	M.A. in Education	Education	
33	210	M.A. in English	English and Foreign Languages	
34	211	M.A. in Linguistics and Language Technology		
35	212	M.A. in Linguistics and Endangered Languages		
36	213	M.A. in Hindi	Hindi	
37	214	Post Graduate Diploma in Translation (Hindi)		
38	215	M.A. in Mass Communication and Journalism	Mass Communication and Journalism	
39	216	M.A. in Communication for Development		
40	217	M.A. in Social Work	Social Work	
41	218	M.A. in Sociology	Sociology	
42	219	P.G. Diploma in Child Rights and Governance	Centre for Inclusive Development	
43	220	P.G. Diploma in Women's Studies	Chandraprabha Saikiani Centre for Women's Studies	
44	221	M.B.A.*	Business Administration	Management Sciences
45	222	Master of Tourism and Travel Management		
46	223	M.Com	Commerce	
47	224	M.Sc. in Chemistry	Chemical Sciences	Sciences
48	225	M.Tech. in Polymer Science and Technology		
49	226	M.Sc. in Environmental Science	Environmental Science	
50	227	M.Sc. in Mathematics	Mathematical Sciences	
51	228	M.Sc. in Molecular Biology and Biotechnology	Molecular Biology and Biotechnology	
52	229	M.Sc. in Physics	Physics	
53	230	M.Sc. in Nanoscience and Technology		

*Admission to M.B.A. is made on the basis of CAT/MAT (December session) score.
§AICTE Approved

Ph.D. Programmes

SN	Code	Programme	Department /Centre	School
54	301	Ph.D.	Civil Engineering	Engineering
55	302	Ph.D.	Computer Science and Engineering	
56	303	Ph.D.	Electronics and Communication Engineering	
57	304	Ph.D.	Energy	
58	305	Ph.D.	Food Engineering and Technology	
59	306	Ph.D.	Mechanical Engineering	
60	307	Ph.D.	Cultural Studies	Humanities and Social Sciences
61	308	Ph.D.	Education	
62	309	Ph.D.	English and Foreign Languages	
63	310	Ph.D.	Hindi	
64	311	Ph.D.	Mass Communication and Journalism	
65	312	Ph.D.	Sociology	
66	313	Ph.D.	Business Administration	Management Sciences
67	314	Ph.D.	Chemical Sciences	Sciences
68	315	Ph.D.	Environmental Science	
69	316	Ph.D.	Mathematical Sciences	
70	317	Ph.D.	Molecular Biology and Biotechnology	
71	318	Ph.D.	Physics	

Centre for Open and Distance Learning (CODL)

SN	Code	Programme*	Department	School
72	401	P.G. Diploma in Renewable Energy and Energy Management	Energy	Engineering
73	402	P.G. Diploma in Functional Hindi	Hindi	Humanities and Social Sciences
74	403	M.A. in Mass Communication	Mass Communication and Journalism	
75	404	P.G. Diploma in Governance and Development	Sociology	
76	405	P.G. Diploma in Human Resource Management	Business Administration	Management Sciences
77	406	P.G. Diploma in Investment Management	Business Administration	
78	407	P.G. Diploma in Retail Management	Business Administration	
79	408	M.Sc. in Mathematics	Mathematical Sciences	Sciences
80	409	P.G. Diploma in Environmental Management	1. Environmental Science 2. Centre for Disaster Management	

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

1.6 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 as listed in Section 1.5. Admission to most of these programmes is held through entrance examinations conducted by the University in various centres across the country (see Section 1.7). This year (2017-2018 session), the University will conduct the entire admission process (application submission, entrance examinations, counselling/admission) through online-mode only.

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

(a) **B.Tech. Programmes**:

(i) Candidates seeking admission to the B.Tech. Programmes are required to appear in the **JEE(Main)-2017** to be conducted by CBSE, New Delhi. All Admission shall be based on **JEE(Main)-2017** all India Ranking.

(ii) The Candidates who appear in the **JEE(Main)-2017** have two channels for admission to the B. Tech. Programmes.

(iii) 40% of the total seats shall be made through the central counselling i.e. Central Seat Allocation Board (CSAB) based on **JEE(Main)-2017.** 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.

(iv) 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)-2017** 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.

(a) **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.

(b) **M.Sc. Programme in Molecular Biology and Biotechnology**: Candidates in this M.Sc. 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).

(c) **Master of Business Administration (MBA)**: Candidates in the MBA Programme may seek admission on the basis of CAT/ MAT (December Session) score.

(d) **All other 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.

(e) **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 in Annexure I.

(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) Full-time Ph.D. candidate will be given preference.

1.7 List of the University Entrance Examinations Centres

Code	Centre
101	Agartala
102	Barpeta Road
103	Bengaluru
104	Bhubaneswar
105	Chennai
106	Delhi
107	Dibrugarh
108	Diphu

Code	Centre
109	Goalpara
110	Guwahati
111	Hyderabad
112	Imphal
113	Itanagar
114	Jorhat
115	Kokrajhar
116	Kolkata

Code	Centre
117	Lucknow
118	Mumbai
119	North Lakhimpur
120	Patna
121	Shillong
122	Silchar
123	Siliguri
124	Tezpur

Candidates seeking admission through the University entrance examinations need to specify in their application forms the preferences of 03 (three) examination centres for appearing the entrance examinations. A candidate will be accommodated in the next preferred centre if the previous centre(s) is(are) exhausted due to large number of candidates or cancelled due to insufficient number of candidates.

1.8 Application Procedure

Interested eligible candidates may APPLY ONLINE through the University website www.tezu.ernet.in/admission/ by paying a fee of Rs. 350/- for SC, ST and PWD candidates, and Rs. 700/- 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 (maximum 3) must apply separately with separate Application Fee for each Programme. Note that all the B.Tech. Programmes will be treated as a single Programme.

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 expected to finish all the components, including practical and viva-voce (if any), 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) 2017 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 Certificates and Mark-sheets/Grade Cards of all the previous Degree/ Diploma/ Certificate Programmes.

(v) Copy of the birth certificate or equivalent certificate in support of age.

(vi) Copy of the relevant certificate issued by the competent authority, if seeking admission under any reserved category as mentioned in Section 1.9.

(vii) Copy of the Sponsorship/No objection certificate issued by the employer, if the candidate is employed.

(viii) Copy of the gap certificate issued by the District Police Authority or an affidavit specifying the occupation of the candidate during the gap period, if the candidate is unemployed and there is a gap of one year or more between the last qualifying examination and the year of admission.

(ix) A passport size photograph.

(x) Scanned copy of the signature.

1.9 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. Jammu and Kashmir candidates
2. Widows/wards/wives of Armed forces personnel and Ex-Servicemen as per the following priorities:
   (a) Widows/wards of defence personnel killed in action
   (b) Wards of serving personnel and Ex-servicemen disabled in action
   (c) Widows/wards of defence personnel who died in peace time with death attributable to military service
   (d) Wards of defence personnel disabled in peace time with disability attributable to military service
   (e) Wards of Ex-servicemen and serving personnel who are in receipt of Gallantry Awards.
   (f) Wards of Ex-servicemen
   (g) Wards of serving personnel

(c) 5% reservation of seats in B.Voc. Programmes for PWD candidates.

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. The candidates admitted under SSS are not transferrable to any normal seat.

1.10 Important Dates

(a) Opening of the online application submission : 15 March, 2017
(b) Closing of the online application submission
  (i) All Programmes (except B.Tech. Programmes) : 30 April, 2017
  (ii) B.Tech. Programmes : 08 May, 2017
(c) Declaration of the University entrance examinations schedule: 05 May, 2017
(d) Issuance of admit card for entrance examinations : 12 May, 2017
(e) University entrance examinations : 26 – 28 May, 2017
(f) Declaration of merit lists of shortlisted/selected candidates : 15 June, 2017
(g) Counselling/Admission of new students : 30 June, 2017 onward
(h) Commencement of classes of the Autumn Semester : 27 July, 2017

Note:

(i) Dates of (a), (b), (e) and (h) above are fixed, and all others are tentative.
(ii) 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.
(iii) No separate letter will be issued for acceptance/rejection of application form, appearing entrance examinations (admit card), entrance examination schedule, selection for admission, etc.
(iv) Communication for any doubt/query may be made on tuee17@tezu.ernet.in

1.11 Provisional Admission

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

(a) Fulfilment of the eligibility criteria as specified in Annexure I.

(b) Selection for admission to the Programme.

(c) Production of all the relevant documents in original (see the list of documents in Section 1.8(f) marked for uploading at the time of submission of the application form).

(d) Submission of a set of self-attested copy of all 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) Payment of admission fee in full.

(h) If the result of the qualifying examination of a student is awaited at the time of admission, he/she must produce/submit the evidence of clearing the examination with minimum requisite within 15 November, 2017 (other than Ph.D. Programme). Such a candidate must submit a proof of taking all the examinations of the qualifying Degree/Diploma/Certificate at the time of admission duly certified by the Head of the Institute last attended.

(i) 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 within 15 November, 2017.

(j) **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) Such candidates, who will not be able to produce the mark sheet with satisfying eligibility criteria, shall not be allotted the relative weighted for the component of qualifying examination.

(iii) 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.

(iv) The candidate disqualified for admission in the Autumn Semester 2017 due to Clause No. 1.11(c) may be considered for admission in the Spring Semester 2018 subject to submission of documents satisfying eligibility criteria.

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 15 November, 2017.

1.12 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 elective Courses on their own choices from a pool. Students are also required to register for some inter-disciplinary Courses under the Choice Based Credit Transfer (CBCT) scheme. 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 an integral part of teaching pedagogy to increase the analytical capability and creativity of the students.

1.13 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.

1.14 Important Academic Rules

1.14.1 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.

1.14.2 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 90% 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.

1.14.3 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.

1.14.4 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.

1.14.5 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 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.

2. SCHOOL OF ENGINEERING

2.1 CIVIL ENGINEERING

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 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.

2.1.1 Programmes Offered

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

2.1.2 Faculty and Areas of Interest

Professor		
1	Utpal Kumar Das,* Ph.D. (GU)- HoD	*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*
7	Abhishek Das, M. E (IISc)	*Structural Engineering*
8	Rituraj Buragohain, M. Tech. (IITG)	*Water Resources Engineering*
9	Arunav Chakraborty, M. E (AEC)-Ad-hoc	*Geotechnical Engineering*

*** Recognized Supervisor**

LEGENDS: ***GU****-Gauhati University,* ***TU-****Tezpur University****,*** ***IITG****-Indian Institute of Technology Guwahati,* ***IITR****-Indian Institute of Technology Roorkee,* ***IISc-I****ndian Institute of Science Bangalore****, AEC-****Assam Engineering College Guwahati,* ***HoD****- Head of the Department.*

2.1.3 Facilities

The Department has the following Laboratory facilities

Computational Laboratory Facilities

A. MatLab and Simulink R2011b	Civil FEM for Ansys, version 12.1	B. Plaxis 2D
C. ETABS Version 9	AutoCAD	D. SAP 2000

Core Departmental Laboratories

Geotechnical Lab	Surveying Lab	Water Resources Lab
Environmental Engg Lab	Transportation Lab	Structural Lab

2.1.4 Research Activities

- No. of papers published in the year 2016-2017: 12
- No of ongoing research projects: 04
- No. of current Ph.D. scholars : 05

2.1.5 Selected Publications

[1] Deka, S., Dash, S. K. and Sreedeep, S. Strength of lime-treated fly ash using bentonite, *Geotechnical Engineering Journal (Journal of the South East Asian Geotechnical Society & Association of Geotechnical Societies of South East Asia)*, 46(3), 2015.

[2] Hussain, I., Ahamad, K. U. and Nath, P. Water turbidity sensing using a smart phone, *Royal society of Chemistry Advances*, Doi: 10.103/C6RA02483A, 2016.

[3] Saikia, A., Numerical investigation on vibration isolation by softer in-filled trench barriers, *Journal of Geo-Engineering Sciences*, 3(1), 2016.

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

[5] Chakraborty, A. and Goswami, D., State of the art: Three dimensional (3d) slope stability analysis, *International Journal of Geotechnical Engineering*. DOI: 10.1080/19386362.2016.1172807.

2.2 COMPUTER SCIENCE AND ENGINEERING

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 UGC's Special Assistance Programme (SAP DRS Phase II). During 2005-2009 the Department received support from the Department of Science and Technology (DST), Govt. of India under its FIST- programme. The Department has been carrying out active research in the fields of computational theory, computer networks, network security, mobile computing, soft computing and data mining, natural language processing, workflow management, qualitative spatial reasoning, web services, rehabilitation robotics, pattern recognition, bio informatics, image processing algorithms, computational geometry, machine learning and remote sensing image analysis.

2.2.1 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.

2.2.2 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)	*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, M. Tech. (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.	Zubin Bhuyan, M. Tech. (TU)	*Knowledge Representation and Reasoning*
10.	Shobhanjana Kalita, M. Tech. (TU)	*Knowledge Representation and Reasoning*

*** 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*

2.2.3 Facilities

The Department has several state-of-the-art computer laboratories, viz :

a. Basic Programming Laboratories
b. Software Engineering Laboratory
c. Hardware Laboratory
d. Mobile Computing Laboratory

The Department houses the following Research / Special Computing Facilities:

a. Network Security Laboratory
b. Biomimetic and Cognitive Robotics Laboratory
c. Natural Language Processing Laboratory
d. Cognitive Radio Network Laboratory
e. Network Laboratory
f. Malware Research Laboratory

2.2.4 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.

2.2.5 Research Activities

- No. of papers published in the year 2016-2017: 65
- No of ongoing research projects: 08
- No. of current Ph.D. scholars : 40

2.2.6 Selected Publications

[1] Hussain, I., Ahmed, Z. I., Sarma, N., and Saikia, D. K., An efficient TDMA MAC Protocol for Multi-hop WiFi-based Long Distance Networks, *Wireless Personal Communications*, 86(4), 1971- 1994, 2016.

[2] Kakoty, T., Kashyap, H. J., and Bhattacharya, D. K., THD-Module Extractor: An application for

CEN Module Extraction and Interesting Gene Identification for Alzheimer's Disease, *Scientific Reports* 6, 38046, 2016.

[3] Bhuyan, M. H., Bhattacharya, D. K., and Kalita, J. K., E-LDAT: A Lightweight System for DDOS Flooding Attack Detection and IP Traceback Using Extended Entropy Metric, *Journal of Security and Comm Networks*, 9(16), 3251- 3270, 2016.

[4] Kakoty, N. M., Hazarika, S. M., and Gan J. Q., EMG Feature Set Selection Through Linear Relationships for Grasps Recognition, *Journal of Medical and Biological Engineering*, 36(6), 883 - 890. 2016.

[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.

2.3 ELECTRICAL ENGINEERING

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.

2.3.1 Programme Offered

1. B. Tech. in Electrical Engineering

2.3.2 Faculty and Areas of Interest

Professor		
1.	Jiten Chandra Dutta* Ph.D. (JU)- HoD	*Biosensors and Bioelectronics*
Assistant Professors		
1.	Md. Rahat Mahboob, M.Tech. (AMU)	*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 E6lectronic Converters Design, Artificial Intelligence in Renewable Energy Applications*

*** Recognized Supervisor**

LEGENDS: ***JU–*** *Jadavpur University,* ***AMU–*** *Aligarh Muslim University Uttar Pradesh,* ***NITS–*** *National Institute of Technology Silchar,* ***AEC–*** *Assam Engineering College Guwahati,* ***NITA–*** *National Institute of Technology Agartala,* ***HoD****- Head of the Department.*

2.3.3 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.

2.3.4 Research Activities

- No. of papers published in the year 2016-2017:
- No of ongoing research projects:
- No. of current Ph.D. scholars :

2.3.5 Selected Publications

[1] Barik, M. A., Deka, R., & Dutta, J. C, Carbon Nanotube-Based Dual-Gated Junctionless Field-Effect Transistor for Acetylcholine Detection. *IEEE Sensors Journal*, 16(2), 280-286, 2016.

[2] Saharia B. J., Manas M., and Talukdar B. K., Comparative Evaluation of Photovoltaic MPP Trackers: A Simulated Approach, *Cogent Engineering*, Vol. 3, pp -1-17, 2016.

[3] Mahboob M. R., Zargar Z. H., Islam T., A Sensitive and Highly Linear Capacitive Thin Film Sensor for Trace Moisture Measurement in Gases, *Sensors & Actuator B*, 264, 658-664, 2016.
[4] Sharma A., and Bardalai A., Technique to Determine the Optimized Harmonic Switching Angles of a Cascaded Multilevel Inverter for Minimum Harmonic Distortion, *IETE Journal of Research,* 62(3), 288-294, 2015.
[5] Borah, M., & Roy, B. K.. Dynamics of the fractional-order chaotic PMSG, its stabilisation using predictive control and circuit validation. *IET Electric Power Applications*. (DOI: 10.1049/iet-epa.2016.0506), (2016)

2.4 ELECTRONICS AND COMMUNICATION ENGINEERING

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

The department is supported by:

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

2.4.1 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.

2.4.2 Faculty and Areas of Interest

Professors		
1.	Manabendra Bhuyan,* Ph.D. (GU)- Pro V.C	*Sensor Design, Intelligent Instrumentation, Signal Processing*
2.	Partha Pratim Sahu,* Ph.D. (JU)	*Optical Networks and its Components, Clinical Instrumentation, Micro-fabrication*
3.	Jiten Chandra Dutta,* Ph.D. (JU)	*Biosensors and Bio-electronics, Neuorobioengineering,*
4.	Satyajib Bhattacharyya,* Ph.D. (DU)-HoD	*Microwave Antennas, Absorbing Materials*
Associate Professors		
1.	Santanu Sharma,* Ph.D. (TU)	*Semiconductor, Bioelectronic Devices, Vehicular Electronics, Power Electronics*
2.	Soumik Roy,* Ph.D. (TU)	*Neuroengineering.*
3.	Bhabesh Deka,* Ph.D. (IITG)	*Image Processing, Computer Vision, Compressive Sensing MRI, Biomedical Signal Processing*
4.	Vijay Kumar Nath,* Ph.D. (IITG)	*Image and Video Processing*

5.	Nayan Moni Kakoty, Ph.D. (TU)	*Robotics, Biomedical Signal Processing*
Assistant Professors		
1.	Riku Chutia, Ph.D. (TU)	*E-nose, Instrumentation and Signal Processing, Embedded System*
2.	Deepika Hazarika, M. Tech. (IITG)	*Image Processing*
3.	Ratul Kumar Baruah Ph.D. (IITG)	*Nanoelectronics, VLSI, MEMS*
4.	Biplob Mondal, Ph.D. (JU)	*VLSI and MEMS Devices*
5.	Durlav Sonowal, M. Tech. (TU)	*Sensors, Signal Processing*
6.	Ananya Bonjyotsna, M. Tech. (TU)	*Audio Processing*
7.	Priyanka Kakoty, M. Tech. (TU)	*Intelligent Instrumentation*

*** Recognized Supervisor**

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

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

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

d. **M. Tech Project Laboratory:** It is equipped with a number 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 MICROSIM, PCB layout, CPLD-FPGA Electronic Design Automation (EDA) software, High Performance Data acquisition-Control-Manipulation Software-GENIE Lab View, XILINX, ORCAD. Experiments on Data and Computer Networks (DCN), VLSI, Modelling and Simulation (MS), Device Modelling, and Advanced Programming Language (APL) are conducted in this lab.

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

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

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

o. **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.

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

q. **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

2.4.4 Research Activities

- No. of papers published in the year 2016-2017: 31
- No of ongoing research projects: 04 (including joint projects with other Departments)
- No. of current Ph.D. scholars: 34
- Consultancy: 02
- Visvesvaraya Young Faculty Research Fellowship: 02

2.4.5 Selected Publications

[1] Barik, M. A., Deka, R., and Dutta, J. C. Carbon Nanotube-Based Dual-Gated Junctionless Field-Effect Transistor for Acetylcholine Detection. *IEEE Sensors Journal*, 16(2) 2016.

[2] Borah, P. and Bhattacharyya, S. Design of a dual band V-shaped patch antenna using shorting posts. *Microwave and Optical Technology Letters*, 58(2), 2016.

[3] Das, H., Das, D , Doley, R. and Sahu, P. P. Quantifying Demyelination in NK venom treated nerve using its electric circuit model. *Scientific Reports*, 6 2016.

[4] Deka, B., Handique, M., and Datta, S. Sparse regularization method for the detection and removal of random-valued impulse noise. *Multimedia Tools and Applications*, 2016

[5] Sonowal, D. and Bhuyan, M. Linearization of Sensor Signal in FPGA: A Multichannel Approach for High Speed Real Time Applications*, Advances in Sensors*, 3, 2016

2.5 ENERGY

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 the 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 two 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.

2.5.1 Programmes Offered

1. M.Tech. in Energy Technology
2. Ph.D.
3. Post Graduate Diploma in Renewable Energy and Energy Management (Through CODL)

2.5.2 Faculty and Areas of Interest

Professors		
1.	Debendra Chandra Baruah,* Ph.D. (PAU),	*Renewable Energy and Energy Management*
2.	Dhanapati Deka,* Ph.D. (TU)- DSW	*Biofuels, Catalytic transformation of biomass to biofuel and chemical, Bioenergy and Environment*
3.	Rupam Kataki,* Ph.D. (TU)- HoD	*Biomass and Bioenergy, Biofuels, Energy Environment interaction*
Assistant Professors		
1.	Sadhan Mahapatra, Ph.D. (IISc.)	*Biomass Gasification, Climate Responsive Buildings, Decentralized Energy Options, Energy Conservation*
2.	Pradyumna Kumar Choudhury, M.Tech. (TU)	*Energy Conservation and Management, Integration of Renewable Energy Systems*
3.	Biraj Kumar Kakati,* Ph.D. (IITG)	*Fuel Cell, Hydrogen Technology and Redox Flow Battery, Graphane nanocatalyst*
4.	Nabin Sarmah,* Ph.D. (HWU)	*Solar Energy, Photovoltaic, Energy Systems*
5.	Bibha Boro, M.Tech. (TU)	*Electrical Engineering*

***Recognized Supervisor**

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

2.5.3 Facilities

a. 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.

b. 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.

2.5.4 Scholarship

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

2.5.5 Research Activities

- No. of papers published in the year 2016-2017: 20
- No of ongoing research projects: 08
- No. of current Ph.D. scholars : 22

2.5.6 Selected Publications

1. Brahma, A., Saikia K., Hiloidhari, M. and Baruah D.C. GIS based planning of a biomethanation power plant in Assam, India, *Renewable and Sustainable Energy Review*, 62, 598 - 608, 2016.
2. Devi A, Das V K and Deka D. Ginger extract as a nature based robust additive and its influence on the oxidation stability of biodiesel synthesized from non-edible oil. *Fuel* 187, 306–314, 2016.
3. Kakati, B.K., Unnikrishnan, A., Rajalakshmi, N., Jafri, R.I., Dhattatreyan, K.S., and Kucernak, A.R.J, Recovery of Polymer Electrolyte Fuel Cell exposed to sulfur dioxide, *International Journal of Hydrogen Energy*, 41, 5598–5604, 2016.
4. Neonjyoti Bordoloi, Rumi Narzari, Debashis Sut, Ruprekha Saikia, Rahul Singh Chutia, Rupam Kataki. Characterization of bio-oil and its sub-fractions from pyrolysis of *Scenedesmus dimorphus*. *Renewable Energy,* 98, 245-253, 2016.
5. Shanks, K., Sarmah, N., Ferrer-Rodriguez, J. P., Senthilarasu, S., Reddy, K. S., Ferna´ndez, E. F., Mallick, T. K. Theoretical investigation considering manufacturing errors of a high concentrating photovoltaic of cassegrain design and its experimental validation, *Solar Energy*, 131, 235-245, 2016.

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2.6 FOOD ENGINEERING AND TECHNOLOGY

The Department was established in the year 2006 with the name of Department of Food Processing Technology for imparting Post Graduate education in the area of food processing and engineering. With the introduction of B.Tech. programme in Food Engineering and Technology (FET) in the year 2010, it was renamed as the Department of Food Engineering and Technology. The vision of the Department is to create skilled human resources in the engineering aspect of food processing in order to cater to the needs of the rapidly growing food processing sector. The Department aims at providing knowledge and skills for better preservation, processing and value addition to agro-products. It also aims at promoting R&D for product and process development. It seeks to assure a high level hygiene and safety of processed food through food safety laws and regulations, which will support a competitive, modern and safe food market for the consumers.

The Department has the support of the Ministry of Food Processing Industries (MoFPI), Govt. of India, under HRD grant for establishing laboratories to conduct PG and UG courses in Food Engineering and Technology, and for establishing a Food Quality Control Laboratory. The Department of Science and Technology (DST), Govt. of India has granted support to strengthen the Post Graduate teaching and Research under its FIST programme. Department is covered under UGC-SAP (DRS-I). AICTE has supported running AICTE approved courses at the department through the scheme of AICTE NEQIP. GATE qualified M.Tech students receive PG Scholarship of MHRD. Students from the department have been benefited from MHRD's schemes for North-East under ISHAN UDAY, ISHAN VIKAS.

Research activities at the Department are supported by various sponsoring agencies like 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.

2.6.1 Programmes offered

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

2.6.2 Faculty and Areas of Interest

Professors		
1.	Charu Lata Mahanta,* Ph.D. (CFTRI), Dean– SoE	*Rice Science and Technology, Product Development and Food Quality*
2.	Sankar Chandra Deka,* Ph.D. (HAU)	*Food Biochemistry and Food Quality, Fermented Foods*
Associate Professors		
1.	Manuj Kumar Hazarika,* Ph.D. (IITKgp)	*Food materials Engineering, Food Industrial Engineering, Food Design.*

2.	Brijesh Srivastava,* Ph.D. (IITKgp)-HoD	*Process and Food Engineering, Fruits and Vegetable Processing and Machineries, Non-Thermal Processing, Unit Operations in Food Engineering*
3.	Nandan Sit,# Ph.D. (TU)	*Food Engineering, Biochemical Engineering, Oils and Fats, Food Biotechnology*
4.	Poonam Mishra,# Ph.D. (TU)	*Nano composite; Fruits and vegetable technology; Function food; Biosensors.*
5.	Laxmikant S. Badwaik,# Ph.D. (TU)	*Food Packaging, Food Safety and Laws, osmotic dehydration*
Assistant Professors		
1.	Dibyakanta Seth, M. Tech. (IITKgp)	*Dairy and Food Engineering, Dairy Technology, Unit Operations in Food Engineering, Emerging Trends in Food Process Engineering*
2.	Raj Kumar Duary,* Ph.D. (NDRI)	*Isolation and Establishment of Probiotic Organism, Probiotic Food Formulation and Development, Fermentation, Human Cell Culturing*
3.	Kshirod Kumar Dash,# Ph.D. (IITKgp)	*Food Process Modeling, Transfer Process in Engineering, Optimization in Food Engineering*
4.	Amit Baran Das, M.S. (IIT Kgp)	*Food Process Modeling, Optimization in Food Engineering, Product Technology Development*
5.	Nishant Rachayya Swami Hulle, Ph.D (IITKgp)	*Food Process Technology , Non thermal processing , Product Development*
6.	Sourav Chakraborty, M.Tech. (TU) (B. Voc. programme)	*Food Engineering, Food Process Simulation and Modeling*

*** Recognized Supervisor #Recognized Co-Supervisor/ Associate 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.*

2.6.3 Facilities

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

2.6.4 Research Activities

- No. of papers published in the year 2016-2017: 72
- No. of ongoing research projects: 15
- No of current Ph.D. scholars: 29

2.6.5 Selected Publications

[1] Sharma, P., Ramchiary, M., Samyor, D., and Das, A. B.. Study on the phytochemical properties of pineapple fruit leather processed by extrusion cooking. LWT-Food Science and

Technology, 72, 2016.
[2] Barman, N., Badwaik, L.S. Effect of ultrasound and centrifugal force on carambola (Averrhoa carambola L.) slices during osmotic dehydration. Ultrasonics Sonochemistry. doi:10.1016/j.ultsonch.2016.05.014, 2016
[3] Hazarika, B.J. and N Sit, N. Effect of dual modification with hydroxypropylation and cross-linking on physicochemical properties of taro starch. Carbohydrate Polymers 140, 269-278, 2016.
[4] Saxena, J., Makroo, H.A., Srivastava, B. Optimization of time-electric field combination for PPO inactivation in sugarcane juice by ohmic heating and its shelf life assessment. LWT - Food Science and Technology, 71, 329–338, 2016,.
[5] Borah, P.K., Deka, S. C. and Duary, R. K. Effect of repeated cycled crystallization on digestibility and molecular structure of glutinous Bora rice starch. Food Chemistry, 2016

2.7 MECHANICAL ENGINEERING

The Department of Mechanical Engineering was established in the year 2006 under the School of Engineering for offering B.Tech degree in Mechanical Engineering. Subsequently, M.Tech and Ph.D. programmes were started in the year 2013. The vision of the department is to emerge as a centre of excellence producing quality engineers and conducting cutting-edge research. Both the B.Tech and M.Tech (Mechanical Engineering) programmes are approved by AICTE. Moreover, B.Tech Mechanical Engineering programme is accredited by National Board of Accreditation with effective from 01/01/2016.

2.7.1 Programmes offered

1 B. Tech in Mechanical Engineering
2 M. Tech in Mechanical Engineering (Two Specializations)
   (a) M. Tech in Thermo–fluids Engineering
   (b) M. Tech in Applied Mechanics
3 Ph. D.

2.7.2 Faculty and Areas of Interest

Professors		
1.	Dilip Datta,* Ph.D. (IITK)	*Design, Optimization and Operational Research*
2.	Tapan Kumar Gogoi,* Ph.D. (TU)	*Thermal, Energy and Environment Engineering*
Associate Professor		
1.	Partha Pratim Dutta,# Ph.D. (TU)-HoD	*Energy and Thermal Engineering*
Assistant Professors		
1.	Paragmoni Kalita, M. Tech. (BHU)	*Computational Fluid Dynamics , High Speed Flows*
2.	Polash Pratim Dutta, ME (BIT)	*CAD, Laser Forming, Mechatronics, Soft Computing*
3.	Sushen Kirtania, Ph.D. (IITG)	*Composite Materials, Carbon Nanotubes, Carbon Nanotubes Based Composites, Finite Element Method, Fracture Mechanics*
4.	Prabin Haloi, ME (GU)	*Fluid and Thermal Engineering*
5.	Sanjib Banerjee,* Ph. D. (IITG)	*Materials and Manufacturing*
6.	Monoj Bardalai, ME(GU)	*Thermal Engineering, Renewal Energy Conversion*
7.	Satadru Kashyap, M.Sc. (Engg.) (UA)	*Manufacturing and Materials Science*
8.	Zahnupriya Kalita, ME (AIT)	*Mechatronics*
9.	Rakesh Bhadra, ME (BESUS)	*Manufacturing, Production Engineering*
10.	Barnali Chowdhury, ME (GU)	*Thermal Engineering*
11.	Seikh Mustafa Kamal, Ph.D. (IITG)	*Machine Design*
12.	Vivek Kumar Mehta, Ph.D. (IITK)	*Robotics, Optimization: Classical and Evolutionary Algorithms, Multi-objective Optimization, Multi-modal Optimization .Robotics: Parallel Manipulators*
13.	Shikha Bhuyan, M. Tech. (NITS)	*Thermal Engineering*.

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

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

2.7.3 Facilities

a. **CAD Laboratory:** This laboratory is equipped with computers having server based installed software such as ANSYS -FLUENT combo, FLUENT 6.3 teaching version and Pro-E Wildfire 3.0 version and NI Lab. View Software. At present the laboratory has two servers and 25 computers for use of both students and academic staff.

b. **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.

c. **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.

d. **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.

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

f. **Thermal Science Laboratory:** This laboratory is equipped with Vapour Absorption refrigeration system, Standard vapour compression refrigeration system, Air conditioning and Cooling tower.

g. **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.

h. **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).

i. **Kinematics Laboratory:** In this laboratory, there are various types of models of different mechanisms, like shaper model, clutch model, Oldham coupling model, gear drive, belt drive, chain drive, etc.

j. **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.

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

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

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

n. **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.

2.7.4 Research Activities

- No of paper published in the year 2016-2017: 26
- No of ongoing research projects: 01
- No of current Ph.D. scholars: 11

2.7.5 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., Saharia J., Kumar T., Gupta A., Singh A.K. Gasification of some locally available biomass using a downdraft gasifier. Journal of Biofuel and Bioenergy 1(2), 208-217, 2016.

[4] A. Deka and D. Datta. *Geometric size optimization of annular step fin using multi-objective genetic algorithm.* Journal of Thermal Science and Engineering Applications, doi: http://dx.doi.org/10.1115/1.4035838, 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.

2.8 ACADEMIC CURRICULA

2.8.1 Voc. in Renewable Energy Management

Year-I:: NSQF Level-V						
First Semester (L_5_Sem_I)				**Second Semester (L_5_Sem_II)**		
Course Code	**Course Title**	**Cr.**		**Course Code**	**Course Title**	**Cr.**
GC 111	English -I	4		GC 121	Introductory Computing	5
GC 112	Mathematics -I	4		GC 122	Physics - I	4
GC 113	Chemistry -I	4		VC 121	Basic Electrical Systems	3
VC 111	Engineering Drawing	3			Elective-II (General Elective)	3
	Elective-I (General Elective)	3			CBCT 1	3
VR112#	Workshop Practice (RE) - I	3		VR 122#	Workshop Practice (RE) - II	3
BVR113#	Renewable Energy Technology-I	4		VR123#	Renewable Energy Technology -II	4
BVR114#	Renewable Energy Laboratory-I	5		VR124#	Renewable Energy laboratory –II	5
Year-II:: NSQF Level-VI						
Third Semester (L_6_Sem_I)				**Fourth Semester (L_6_Sem_II)**		
Course Code	**Course Title**	**Cr.**		**Course Code**	**Course Title**	**Cr.**
GC 211	Communication Skill-I	4		GC 221	Chemistry-II	5
GC 212	Sociology	4		GC 222	Physics - II	4
GC 213	Mathematics-II	4			CBCT 2(Elective)	4
VC 211	Applied Mechanics	3		VR 221#	Wind and Hydro Energy	3
VR 212*	Solar Energy Systems	3		BVR 222#	Energy Efficiency in Process Utilities	3
VR 213*	Biomass Conversion Technologies	4		BVR 223#	Carbon Credit	4
VR 214*	Farm Power	5		BVR 224#	Waste Recycling and Resources Recovery System	5
	DSE 1 (Elective)	3			DSE 2 (Elective)	3
Year-III:: NSQF Level-VII						
Fifth Semester (L_7_Sem_I)				**Sixth Semester (L_7_Sem_II)**		
GC 311	Communication Skill-II	4		GC 321	Technical Communication and Reporting	3
GC 312	Environmental Studies	4		VR 322	Mini Project/Industrial Training	5
GC 313	Mathematics-III	4		VR 323	Case Study and Project	22
GC 314	Computational Laboratory	5				
GC 315	Economics and Industrial Statistics	4				
VR 311*	Renewable Energy Economics	3				
VR 312*	Energy Management and Auditing	3				
	DSE 3 (Elective)	3				

appropriate window may be provided for industrial engagement leading to vocational practice .
GC: B.Voc. General Component, VC: B.Voc Vocational Component
VR: B.Voc. Vocational Component Under Renewable Energy Trade.

2.8.2 B. Voc. in Food Processing

Year-I:: NSQF Level-V						
First Semester (L_5_Sem_I)				**Second Semester (L_5_Sem_II)**		
Course Code	**Course Title**	**Cr.**		**Course Code**	**Course Title**	**Cr.**
GC 111	English -I	4		GC 121	Introductory Computing	5
GC 112	Mathematics -I	4		GC 122	Physics – I	4
GC 113	Chemistry -I	4		VC 121	Basic Electrical Systems	3
VC 111	Engineering Drawing	3		VC 122/ VC 123/ VC 124	Biomolecules/ Enzyme Technology / Microbial Technology	3
VC 112/ VC 113/ VC 114	Introductory Microbiology/ Industrial Microbiology/ Environmental Microbiology	3		VF 122#	Floor Practice-II	3
VF 112#	Workshop Practice (FP) - I	3		VF 123#	Agro Processing Operations	4
VF 113#	Floor Practice-I	4		VF 124#	Agro Food Processing Technology	5
VF 114#	Food Products Technology -I	5		-	CBCT -I#	3
Year-II:: NSQF Level-VI						
Third Semester (L_6_Sem_I)				**Fourth Semester (L_6_Sem_II)**		
Course Code	**Course Title**	**Cr.**		**Course Code**	**Course Title**	**Cr.**
GC 211	Communication Skill - I	4		GC 221	Chemistry-II	5
GC 212	Sociology	4		GC 222	Physics - II	4
GC 213	Mathematics - II	4		VF 221	Food Processing Plant Utilities	3
VC 211	Applied Mechanics	3		VF 222#	Floor Practice-IV	3
VF 212#	Floor Practice-III	3		VF 223#	Food Processing Machines	4
VF 213#	Food Processing Methods	4		VF 224#	Food Products Technology-III	5
VF 214#	Food Products Technology-II	5		-	CBCT –II	3
VF 215/ VF 216/ VF 217/ VF 218	Introductory Food Engineering/ Basic Thermodynamics/ Electro Technology/ Instrumentation and Process Control in Food Processing	3		VF 225/ VF 226/ VF 227/ VF 228/ VF 229	Food Packaging, Material Handling and Storage/ Cereal, Pulses and Oilseed Process Technology/ Milling Technology/ Advanced Food Processing Methods/Fermented and Non Fermented Beverages	3
					CBCT-II	3
Year-III:: NSQF Level-VII						
Fifth Semester (L_7_Sem_I)				**Sixth Semester (L_7_Sem_II)**		
GC 311	Communication Skill - II	4		GC 321	Technical Communication and Reporting	3
GC 312	Environmental Studies	4		VF 322#	Mini Project/Industrial Training	5
GC 313	Mathematics-III	4		VF 323#	Case Study and Project	22
GC 314	Computational Laboratory	5				
GC 315	Economics and Industrial Statistics	4				
VF 311#	Food Safety Standard and Regulations	3				
VF 312#	Floor Practice-V	3				
VF 313/	Extrusion Technology/	3				

VF 314/ VF 315/ VF 316	Refrigeration Systems/ Instrumental Methods of Food Analysis/ Drying Systems					
# appropriate window may be provided for industrial engagement leading to vocational practice .						

2.8.3 B.Tech. Programmes (Common to all discipline)

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

2.8.4 B.Tech. in Civil Engineering

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 201	Fluid Mechanics	3		CE 206	Civil Engineering Drawing	2
CE 202	Surveying	4		CE 207	Hydraulics and Hydraulic Structures	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 211	Hydraulics 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 312	Construction Technology	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				

2.8.5 B.Tech. in Computer Science and Engineering

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	**Course Title**	**Cr.**		**Course**	**Course Title**	**Cr.**

Code				Code		
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 Interfacing	5		CO 506	Advanced Software Engineering	3
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

2.8.6 B.Tech. in Electrical Engineering

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 Logic	4		EL 205	Integrated Circuit	4
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 405	Industrial Automation Systems	3		EE 408	High Voltage Engineering	3
EE 407	Advanced Power Electronics and Drives	3		EE 409	Industrial Drives and Control	3
EE 308	Nonconventional Energy Sources	3		EE 411	Power System Interconnection and Control	3
EE 309	Utilization and Conservation of Electrical Energy	3		EL 426	Fuzzy Logic and Neural Networks	3
EE 310	Embeded Systems	3				

2.8.7 B.Tech. in Electronics and Communication Engineering

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				

2.8.8 B.Tech. in Food Engineering and Technology

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

2.8.9 B.Tech. in Mechanical Engineering

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	3		ME 306	Advanced Workshop Practice	3

	Machinery					
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$				**Eight 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		Course Code	Course Title	Cr.
ME 422	Optimization Methods in Engineering	3		ME 435	Machine Tool Design	3
ME 423	Mechanical Vibration	3		ME 436	Combustion Engineering	3
ME 424	Theory of Elasticity	3		ME 437	Tea Machineries	3
ME 425	Machine Tools and Machining	3		ME 438	Petroleum and Drilling Technology	3
ME 426	Reliability Engineering	3		ME 439	Refrigeration and Air Conditioning	3
ME 427	Productivity Improvement Techniques	3		ME 440	Advanced Mechanics of Solids	3
ME 428	Finite Element Methods in Engineering	3		ME 503	Mechanics of Composite Materials	4
ME 429	Gas Turbine and Compressor	3		ME 504	Failure Analysis of Materials	3
ME 430	Value Engineering	3		ME 505	Advanced Dynamics	4
ME 431	Fracture and Fatigue	3		ME 506	Theory of Elasticity and Plasticity	3
ME 432	Engineering Optimization	3		ME 507	Theory of Plates and Shells	3
ME 433	Experimental Stress Analysis	3		ME 508	Continuum Mechanics	3
ME 434	Composite Materials	3		ME 521	Robotics	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 Engineering	3		ME 546	Fluid Transportation Systems	3
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

2.8.10 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
-	CBCT	3		-	CBCT	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				
-	CBCT	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				

2.8.11 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 521	Design and Technology of Electronic Devices	4		EL 530	VLSI Design	4
EL 523	Advanced Programming Language	5		EL 532	Intelligent Instrumentation	4
EL 531	Design of Digital Systems	4		EL 538	Advanced Electronic Devices	3
-	Elective - I	4		-	CBCT-II	3
-	CBCT- I	3		-	CBCT-III	3
				-	Elective- II	4
Third Semester and Fourth Semester						
Course Code	**Course Title**					**Cr.**
EL 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.**
EL 533	Data Communication and Networks	4		EL 534	Modeling and Simulation	4
EL 535	Information System	4		EL 536	Application Software	4

2.8.12 M. Tech. in Bioelectronics

First Semester				**Second Semester**		
Course Code	**Course Title**	**Cr.**		**Course Code**	**Course Title**	**Cr.**
BE 509	Biomathematics	3		BE 504	Neuroengineering	3
BE 511	Basic Bioelectronics Laboratory	4		BE 506	Biomedical Image Processing	4
BE 515	Basic Bioelectronics	3		BE 518	Bioelectronics Systems and Controls	4
BE 517	Biomedical Signal Processing	4		BE 524	Advanced Bioelectronics Devices	4
BE 519	Bioinspired Systems and Engineering	3		-	CBCT -II	3
-	CBCT -I	3		-	CBCT -III	3
-	Elective- I	4		-	Elective- II	4
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 508	BioMEMS and Nanotechnology	4
BE 513	Biomedical Electronics	4				

2.8.13 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)				**Elective –II (Any one from the following Courses)**		
EN 515	Advanced Bio-Energy	3		EN 525	Thermal Power Plant Engineering	3
EN 516	Advanced Solar Thermal Energy	3		EN 526	Energy Efficient Buildings	3
EN 517	Advanced Solar Photovoltaic Energy	3		EN 527	Renewable Energy Grid Integration	3
EN 518	Hydrogen Energy and Fuel Cell	3		EN 528	Decentralized Energy Systems	3
EN 519	Alternative Fuels for IC Engines	3		EN 529	Energy, Climate Change and Carbon Trade	3
EN 520	Petroleum Exploration, Production and Refining	3		EN 530	Instrumentation and Control for Energy Systems	3
EN 521	Nuclear Energy	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

2.8.14 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 Trends in Food Processing	3
FT 512	Advanced Food Engineering	4		FT 517	Food Plant Design and Layout	3
FT 513	Engineering Properties of Biological Materials	3		FT 519	Seminar	1
-	Elective- I	3		FT 601	Food Product Development	3
-	Elective- II	3		FT 602	Simulation and Modeling	3
-	Elective -III	3		-	Elective- IV	3
-	CBCT-I	3		-	CBCT-II	3
				-	CBCT-III	3
Third Semester				**Fourth Semester**		
Course Code	**Course Title**	**Cr.**		**Course Code**	**Course Title**	**Cr.**
FT 680	Project Seminar	6		FT 682	Project	12
Elective Courses						
Group-I				**Group-II**		
Course Code	**Course Title**	**Cr.**		**Course Code**	**Course Title**	**Cr.**
FT 521	Bakery and Confectionary Technology	3		FT 525	Bioprocess Engineering	3
FT 522	Oils and Fats Technology	3		FT 526	Fermentation and Process Control	3
FT 523	Processing Technology of Meat, Poultry and Fish	3		FT 527	Food Biotechnology	3
FT 524	Novel Separation Techniques	3		FT 528	Industrial Microbiology and Enzyme Technology	3
				FT 529	Fermented and Non Fermented Beverages	3
Group-III				**Group-IV**		
Course Code	**Course Title**	**Cr.**		**Course Code**	**Course Title**	**Cr.**
FT 530	Food Process Design and Analysis	3		FT 535	Specialty Foods: Nutraceuticals and Functional Foods	3
FT 531	Food Process Automation	3		FT 536	Food Plant Hygiene and Sanitation	3
FT 532	Numerical Methods in Food Processing	3		FT 537	Waste Management and Byproduct Utilization in Food Industries	3
FT 533	Energy Conservation in Food Processing	3		FT 538	Industrial Safety and Hazards	3
FT 534	Drying and Dehydration	3		FT 539	Food Rheology	3
				FT 540	Operation Research	3

Group-V (Only for students from non-food technology background)

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

2.8.15 M. Tech in Mechanical Engineering

First Semester				Second Semester		
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
-	CBCT-I	3		-	CBCT- II	3
-	Elective -I	3/4		-	CBCT- III	3
-	Elective-II	3/4		-	Elective -III	3/4
				-	Elective -IV	3/4
Specialization: Thermo-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 in Thermal and Fluid Engineering	5		ME 593	Seminar	2
-	Open Elective- I	3		-	Open Elective II	3
-	Elective -I	3		-	Open Elective III	3
-	Elective-II	3		-	Elective -III	3
				-	Elective -IV	3
Third and Fourth Semester						
Specialization: Applied Mechanics				**Specialization: Thermo-fluids Engineering**		
Course Code	**Course Title**	**Cr.**		**Course Code**	**Course Title**	**Cr.**
ME 600	M. Tech. Thesis	24		ME 611	M. Tech. Thesis	12
				ME 612	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 605	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				

2.8.16 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	-
-	CBCT	3		-	Elective	-
				-	CBCT	
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 / CBCT	-
-	CBCT	3		-	CBCT	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	-				
-	CBCT	3				
-	CBCT	3				
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		CS 526	Management Information Systems	3
CS 424	Formal Language and Automata	3		CS 528	Digital Signal Processing	4
CS 522	Computer Graphics	4		CS 529	Embedded Systems	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	3		IT 504	E-Commerce	3

	Algorithms					
CS 602	Image Processing	3		IT 507	Computer Security and Cryptography	3
CS 605	Simulation and Modeling	4		IT 509	Data Mining and Data Warehousing	4
CS 606	Computer Architecture and Parallel Processing	3		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

2.8.17 Ph. D. Programmes in Engineering

A student admitted to the Ph.D. programme shall be required to complete specified course work prior to the submission ofsf Plan of Research as per the recommendation of the Departmental Research Committee (DRC). Currently a Ph.D. scholar is required to complete courses of minimum 16 credits which also include 4 credits of the Research methodology on the areas of research and/or areas related to that of research to be carried out by the students (1 credit generally consists of one hour of lecture/ tutorials or two hours of practical in a week). As a step initiated by the University towards implementation of the Choice Based Credit Transfer (CBCT) system, 4 credits out of the stipulated credit requirement should be from another Department. The course work should be completed within the first two semesters. Employed part-time candidates shall be given the option of carrying out the course work during any two of the first three semesters.

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3. SCHOOL OF HUMANITIES AND SOCIAL SCIENCES

3.1 CULTURAL STUDIES

Established in 1995, the Department of Cultural Studies is one of the few Departments in the country devoted exclusively to the academic pursuit of Cultural Studies. Cultural Studies has evolved into a vibrant interdisciplinary approach in the understanding of society, culture and expressive forms associated with human behaviour across a wide range of disciplinary engagements. India is fast emerging as an important location where methods evolved in Cultural Studies are used to interrogate disciplinary approaches in an attempt to promote an understanding of various issues like ethnicity, migration, national and nationalistic assertion, gender and society, media generated cultural forms, environment and development and emerging lifestyle patterns. The Department of Cultural Studies at Tezpur University mediates global concerns and theoretical approaches of the discipline with issues that are of local importance and promotes an understanding of the rich cultural heritage and the ingrained plural nature of the region, the folk and oral inheritance and ethnic and cultural assertions. 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 Excellance in Particular Areas.

3.1.1 Programmes offered

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

3.1.2 Faculty and Areas of Interest

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

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

*LEGENDS: **GU**-Gauhati University, **VB**-Visva Bharati Santiniketan, **RGU**-Rajiv Gandhi University Itanagar, **TU**-Tezpur University, **DU**-Dibrugarh University, **UoH**-University of Hyderabad, **HoD**-Head of the Department.*

3.1.3 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.

3.1.4 Research Activities

- No. of papers published in the year 2016-17: 15
- No. of ongoing research projects: 04
- No. of current Ph.D. scholars: 18

3.1.5 Selected Publications

[1] Nath, D.P., Inequlity of Languages and the Question of choices in Translation, Translation Today. (National Translation Mission). 9,(1),55-67, 2015.

[2] Mahanta. P.J.(ed.) Vaishnavite Music of Asssam: Its Institutionalisation and Performative Context. Guwahati: Purbanchal Prakash in association with the Department of Cultural Studies, UGC-SAP-DRS(I). T.U., 2016.

[3] Nath, D.P.,(ed.) Women's Narratives from North East India: Lives in the Margins. Guwahati: Purbanchal Prakash in association with the Department of Cultural Studies, UGC-SAP-DRS(I). T.U., 2016.

[4] Nath, D.P., and Dutta, P (eds.) Perspective in Cultural Studies. Guwahati: Purbanchal Prakash in association with the Department of Cultural Studies, UGC-SAP-DRS(I). T.U., 2016.

3.2 EDUCATION

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.

3.2.1 Programmes offered

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

In addition to above Programmes, the Department has been offering courses of B. Ed. part of the integrated B.A.B.Ed./B.Sc.B.Ed. Programmes jointly with other Departments such as Chemical Sciences, Mathematical Sciences, Physics and English and Foreign Languages.

3.2.2 Faculty and Areas of Interest

Associate Professors		
1.	Anjali Sharma, Ph.D. (DBRAU)	*Educational Administration, Planning and Financing, Curriculum Development, Special Education*
2.	Nil Ratan Roy, Ph.D (AUS)-HoD	*Measurement and Evaluation in Education, Research Methodology, Educational Planning and Management, Curriculum Development*
Assistant Professors		
1.	Yeasmin Sultana, Ph.D. (AUS)	*Language Education and Research Methodology*
2.	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*
3.	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*
4.	Sashapra Chakrawarty, Ph.D. (BHU)	*Biological Science, Educational Psychology, Teacher Education, Elementary Education, Special Education, Guidance and counselling*
5.	Pratima Pallai, Ph.D. (LU)	*Social Science Teaching, ICT in Education, Guidance and Counselling, Measurement and Evaluation, Educational Psychology*
6.	Mohammad Asif, M. Ed. (JMI)	*Contemporary Indian Education, Teacher Education, Educational Technology, Pedagogy of Social Science, History of Education*
7.	Sradhanjali Pradhan, M.Ed. (UU)	*Pedagogy of Physical Science, Educational Technology and ICT in Education, Measurement and Evaluation*
8.	Rajinder Singh, Ph.D. (PU^)	*Educational Technology, Educational Research, Special Education, ICT in Education, Language Education, Environment Education, Educational Guidance and Counselling*

LEGENDS: ***DBRAU****-Dr. B. R. Ambedkar University Uttar Pradesh,* ***AUS****-Assam University Silchar,* ***PU****-Pondicherry University,* ***DAV****-Devi Ahilya*

3.2.3 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.

3.2.4 Research Activities

- No. of paper published in the year 2015–16: 18
- No of ongoing research projects: 01
- No. of current Ph.D. scholars: 01

3.2.5 Selected Publications

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

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

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

[4] Roy, N.R. & Bandapadhya, M. Parental Encouragement and Academic Achievements of Secondary Level Students, International Journal of Arts and Educational Research, 9(7), 14—21, 2016

[5] Sharma, A. Impact of Academic Achievement on Language creativity of Students, Anweshika: A research Journal of Teacher Education 10(2), 5—8, 2015

3.3 ENGLISH AND FOREIGN LANGUAGES

The Department was established in 1994 with aims to provide instruction and carry out research in American Literature, English Language Teaching, English Literature, Indian Writing in English, Linguistics, New Literature in English and Women's Writing in English. The Department of English and Foreign Language is a UGC-SAP Department

3.3.1 Programmes offered

1 One Year Certificate Course in Chinese
2 Integrated B.A.B.Ed. with Major in English (Jointly with the department of Education)
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 (Modular)^
7 Ph. D.

^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.

3.3.2 Faculty and Areas of Interest

Professors		
1.	Madan Mohan Sarma,* Ph.D. (DU)	*Applied Linguistics, Literature in English, ELT*
2.	Bijay Kumar Danta,* Ph.D. (UU)	*American Literature, Critical Theory, Fiction Studies*
3.	Farheena Danta,* Ph.D. (DU)	*American Literature, Cultural Studies, Modernist Poetics*
4.	Prasanta Kumar Das,* Ph.D. (GU), Dean-HSS	*American Literature, Indian Writing in English*
5.	Madhumita Barbora,* Ph.D. (TU)-HoD	*Linguistics (Syntax, Psycholinguistics), Field Linguistics, Documentation*
6.	Gautam Kumar Borah,* Ph.D. (NTNU)	*Linguistics, Cognitive Semantics, Philosophy of Language*
Associate Professors		
1.	Debasish Mohapatra,* Ph.D. (EFLU, Hyderabad)	*Curriculum Development, Materials Production, Language Policy*
2.	Sravani Biswas,* Ph.D. (NEHU)	*Critical Theory, Indian Writing in English*
3.	Hemjyoti Medhi,* Ph.D. (DU^)	*Gender and Literature, New Literatures in English, Indian Vernicular Literature*
Assistant Professors		
1.	Rathijit Chakraborty, M.Phil. (Chinese), (JNU)	*Chinese Language and Literature*
2.	Reetamoni Narzari, M.A. (NEHU)	*Women's Writing, Commonwealth Literature, Indian Writing in English*
3.	Pallavi Jha, Ph.D. (UoH)	*Children's Literature, Popular Culture and Literature, Postcolonial Writing*

4.	Sanjib Sahoo,* Ph.D. (TU)	*Indian Writing in English, Ecocriticism, Travel Writing*
5.	Bashabi Gogoi, Ph.D. (GU)	*Critical Theory, Indian Writing in English*
6.	Arup Kumar Nath,$ Ph.D. (JNU)	*Language Typology, Morphology, Language Endangerment, Multilingualism, Sociolinguistics*
7.	Bipasha Patgiri, M.Phil. (JNU)	*Phonology (Prosody, Dialectology, Language Typology and Syntax)*
8.	Esther Daimari, M. Phil. (GU)	*South Asian Literature*
9.	Bidyum Medhi, M.Phil (German) (JNU)	*German Language and Literature*
10.	Amalesh Gope, Ph.D. (IITG)	*Acoustic Phonetics with special interest in Tone, Psychoacoustics, Computational Linguistics, Intonational Phonology and Language Documentation*
11.	Daveirou Lanamai, M. A. (Chinese) (JNU)	*Chinese Language*
12.	Bobita Sarangthem, Ph.D.(MU)	*Field linguistics and Socio Linguistic*
13.	Monali Longmailai Ph.D. (NEHU)	*Morphology, Syntax, Typology, Historical Linguistics, Areal Linguistics and Tibeto-Burman Languages*
14.	Dhanapati Shougrakpam, Ph.D. (MU)	*Morphology, Semantics, Field Linguistics*

*** 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, **UoH**-University of Hyderabad , **IITG**– Indian Institute of Technology Guwahati, **MU**– Manipur University, **HoD**-Head of the Department.*

3.3.3 Facilities

- **Digital Language Laboratory:** The Department has a digital multimedia, multipurpose language laboratory with fifteen booths. Students can improve their pronunciation of English and Foreign Languages (Chinese and French) and develop interactive language skills by utilizing the software and other facilities available in the Laboratory.
- **Departmental Library:** Selected books and photocopied materials relating to literature, linguistics and ELT are available in the Departmental Library. The Department also has a collection of audio cassette of English Pronunciation and spoken English and number of Video CDs on library texts. The Department has a small Computer Laboratory for the use of students and research scholars.

3.3.4 Research Activities

- No. of papers published in the year 2015-2016: 09
- No. of ongoing research projects : 04
- No. of current Ph.D. scholars: 30

3.3.5 Selected Publications

[1] Gogoi. B & DasC, K "Love in the Time of Revolution: A Study of the Novel and Film Adaptation of Boris Pasternak's Doctor Zhivago" Assonance: A Journal of Russian and

Comparative Literary Studies,University of Calicut 16 (1. 2016): 98-115 ISSN: 2394-7893
[2] Nath, A.K. 2016, Reflection of Sexism and Gender Inequality in the Assamese Language, in Communication Studies and Language Pedagogy, VOL. 2, NO. 1-2,JAN-DEC 2016. ISSN-2347-2014
[3] Medhi, H. Gender and Identity Politics: Arupa Patngia Kalita's Felanee (The Story of Felanee) and Rita Chowdhury's Ei Samay Sei Samay (Times Now and Then). Asiatic, 10 (1),225-235, (2016)
[4] Sarma M. M Shakespearear Sonnet (Shakespeare's Sonnets), Prakash, 3(51) pp.35-40. (ISSN 2279-0683) (2016).
[5] Barbora, M, "Bugun Language: Maintenance Issue" Linguistics of Tibeto Burman Languages (LTBA) Editor David Bradely @ John Benjamins Publishing Company. 38.2 (Special Issue) (2015): ISSN 0731-3500/e-ISSN 2214 – 5907.

3.4 HINDI

The Department of Hindi was established in January 2010. At present the Department offers a Post Graduate Diploma Programme in Translation (Hindi), an Inter Disciplinary Course (IDC) in Hindi, and Hindi as a Modern Indian Language (MIL) to students on integrated BA. The Department also offers a PhD programme (in Hindi literature/language). Furthermore, the Department offers a Certificate Course in Official Hindi (Level-1) to the employees of the University in order to help them develop their skill and self-confidence in speaking and writing in the language. The Department is starting M.A. programme from Autumn Semester 2013.

3.4.1 Programmes offered

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

3.4.2 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.*

3.4.3 Facilities

- **The Department has a small Departmental library.**

3.4.4 Research Activities

- No. of papers published in the year 2015-16 : 08
- No. of ongoing research projects: Nil
- No of current Ph.D. scholars: 07

3.4.5 Selected Publications

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

3.5 MASS COMMUNICATION AND JOURNALISM

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. The Department while focusing on the comprehensive MA in Mass Communication and Journalism Programme, has started offering a specialized programme in Communication for Development. 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.

3.5.1 Programmes offered

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

3.5.2 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, Development Communication, Analytical Journalism, Media Studies, 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.	A. Nagraj , Ph.D. (TU)(On Lien)	*Electronic Media Production, Documentary Filmmaking, Television Production and Advertising*
2.	Anjuman Borah, M.A. (TU)	*Development Communication, Television and Traditional Media*
3.	Perosh Jimmy Daimari, M.A. (TU)	*Film Studies, Development Communication*
4.	Kapou Malakar, M. A. (JMI)	*New Media for Development, Multimedia Journalism, Political Communication, Online Journalism, Media Studies, Film Studies*
5.	Manoj Deori, M.A. (TU)	*Online Journalism, Multimedia Productions, Media and Disaster Management*
6.	Junali Deka Ph.D(AUS)	*Cultural Studies, Visual Communication, New Media and Society*

***Recognized Supervisor**

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

3.5.3 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.

3.5.4 Research Activities

- No. of papers published in the year 2015-16 : 10
- No of current Ph.D. scholars: 14

3.5.5 Selected Publications

[1] Chakraborty, J. New media and digital democracy: Delineating the development dilemma for indigenous communities, Proceedings of National Seminar on New Media: Issues Challenges and Prospects, 24-27, 2016

[2] Anbarasan. P. Journalism Education and Regional Media: Income As A Factor of Professional Standards in Northeast India, Quality Configuration of Media Education in India. 158-165, 2016.

[3] Pegu, U. An Anatomy of Ethnic conflict and the Mass Media in Assam, Voice of the Other-Understanding Marginal Identities, 137-147, 2016.

[4] Bora, A. Why development Journalism and Journalism Ethics. Development Journalism-The Way Forward, 5-10, 2016.

3.6 SOCIAL WORK

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.

3.6.1 Programme offered

1 M.A. in Social Work

3.6.2 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*

* **Recognized Supervisor**

*LEGENDS: **DU-** University of Delhi, **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, **TISS-** Tata Institute of Social Sciences, **HoD**-Head of the Department,*

3.6.3 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.

3.7 SOCIOLOGY

The Department of Sociology of Tezpur University was established in 2006 with a Masters programme. Subsequently, it launched a Ph.D. programme in 2008. The Department is dedicated toward nurturing competent and socially sensitive graduates through rigorous teaching and research activities. The faculty members of the Department have a wide range of interests and expertise and are currently engaged in research in areas such as Development, Education, Environment, Ethnic Conflicts, Governance, Health, Migration, Social Movements, Science Studies, etc. The curriculum lays emphasis on teaching and learning of general concerns of sociology as well as issues of sociological significance in northeastern India which constitute a special focus of the teaching and research of the Department. The students pursuing their Masters in the Department not only have to learn critical approaches and perspectives in the 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.

3.7.1 Programmes Offered

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

3.7.2 Faculty and Areas of Interest

Professors		
1.	Virginius Xaxa, Ph.D (IITK) (Gopinath Bardoloi Chair Professor	Agrarian Studies, Plantation Labour, Indigenous Peoples, Development Studies
2.	Chandan Kumar Sharma,* Ph.D (DU^)-HoD	*Development; Environment; Agrarian Structure; Social Movements; Ethnicity; Migration; Society and Politics of Northeastern India*
3.	Kedilezo Kikhi,* Ph.D. (NEHU)	*Research Methodology, Gender and Society, Sociology of Northeast India, Tribal Studies*
Associate Professors		
1.	Rabin Deka,* Ph.D. (DU)	*Sociological Theories, Sociology of Movement, Agrarian Sociology*
Assistant Professors		
1.	Amiya Kumar Das, Ph.D. (TU)	*Sociology of Development, Sociology of Health and Illness, Sociology of Governance*
2.	Sumesh, S. S,* Ph.D. (UK)	*Research Methods, Social Stigma and Exclusion, Community Health, Environmental Movements*
3.	Nirmali Goswami,* Ph.D. (IITK)	*Sociology of Education, Identity of Politics, Multiculturalism*
4.	Sarmistha Das, Ph.D. (TU)	*Agrarian Studies, Sociology of North East India*
5.	Subhadeepta Ray, Ph.D. (DU^)	*Sociology of Science and Sociology of India*
6.	A. S. Shimreiwung, Ph.D. (JNU)	*Sociology of Religion, Environmental Sociology, Sociology of Music*

*** Recognized Supervisor**

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

3.7.3 Facilities

- The Department has six classrooms and two research scholars' room with Wi-Fi connectivity. Selected books and photocopied materials of seminal contributions in sociology are available in the Departmental Library.

3.7.4 Research Activities

- No. of papers published in the year 2016-17: 09
- No. of ongoing research projects: 05
- No of current Ph.D. scholars:

3.7.5 Selected Publications

[1] Sharma, C.K., Building India's Future Powerhouse: Discourses of Development and Popular Resistance in Northeast India, Reframing the Environment: Resources, Risk & Resistance in Neoliberal India, 117-133, 2016.

[2] Sharma, C.K., Immigration, Indigeneity and Identity: The Bangladeshi Immigration Tangle in Assam, Unheeded Hinterland: Identity and Sovereignty in Northeast India. 89-113, 2016.

[3] Kikhi, K. and Dutta, P. Folk Practices of the Khasi Tribe: A Description of Jingrwai Iawbei in Kongthong Village, Sociological Bulletin. 65(2), 237-252, 2016. .

[4] Ray, S. Studying Laboratories: A Sociological Inquiry into Research Practices in Genetics, Towards a New Sociology of India, 2016.

3.8 CENTRE FOR ASSAMESE STUDIES

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.

3.8.1 Programmes Offered

1 Ph.D.

3.8.2 Faculty and Areas of Interest

Professor		
1.	Ranjit Kumar Dev Goswami, Professor and HoD, Srimanta Sankaradeva Chair	*Sankaradeva Studies, Nineteenth Century Assam, Intellectual History, European Poetry*
Assistant Professor		
1.	Juri Dutta , Ph.D. (RGU)	*Regional Literatures of India, Translation Studies and Comparative Literature, Creative Writing*

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

3.9 CENTRE FOR ENDANGERED LANGUAGES

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.

3.8.3 Programmes

1 Certificate programme in Endangered Languages
2 MA in Linguistics and Endangered Languages

3.8.4 Facilities

- The Centre has teaching and non-teaching staffs working together for the documentation of the endangered languages from northeast India, besides training the students of the MA programme of Linguistics and Endangered Languages.
- The Centre is also equipped with the state of the art phonetic lab, documentation lab, and three smart classrooms.

3.8.5 Research Activities

- The Centre's faculty members and staffs along with the linguistics faculty members of the Department of EFL are working on 8 Endangered Languages of North East India. These languages / dialects are Biate, Khelma, Tai Khamti from Assam, Liangmai, Yimchunger from Nagaland, Oinameala, Purum and Phayeng from Manipur. Documentation and analyses of these endangered languages are going on.

3.8.6 Recent events organised:

- NEILSIX (North East Indian Linguistics Society) International Conference, in collaboration with University of Oregon, La Trobe University, Gauhati University, from 5th -8th February, 2016
- Workshop on Data Elicitation : Held from 18th to 20th March 2016
- 2nd Regional CFEL Workshop, from 6th to 8th April 2016
- Computational Linguistics with special focus on Natural Language Processing (NLP) and Machine Translation (MT), from 27th to 29th July 2016
- Capsule Course on Cognitive Linguistics with invited faculty members from the university of Hamburg, Germany during 23rd January to 10th February, 2017
- The centre is also going to host the forthcoming 23rd International Conference of Himalayan Languages Symposium from 5th to 7th July 2017.

3.8.7 Selected Publications

[1] Sarangthem, Bobita. (2013). Expression of Number in Sizang Indian Linguistics 74 (3-4) 2013:73-80 ISSN: 0378-0759
[2] Shougrakpam, Dhanapati (2014). Constituent Structure of Noun Phrase in Manipuri. Asian Journal of Research in Social Sciences & Humanities, Volume IV Issue-II, , ISSN 2250-1665, PP36-42.
[3] Longmailai, Monali. (2017). Passivization in Dimasa. In S.A. Lyngdoh and S.K. Singh (Eds.)

Syntactic Typology; Areal Contact and Convergence, Volume 1, EBH Publishers, Guwahati. ISBN 9789386302007. Pp. 174-185

[4] Longmailai, Monali. (in print 2017). Language, Identity and Origin of Dimasa In M. Longmailai (Ed.) Studies on Dimasa History, Language and Culture, Volume 1, DVS Publishers, Guwahati.

[5] Sarangthem, Bobita. and Longmailai, Monali. (in print 2017). Taboos prevailing in conservative Manipuri and Dimasa Society In M. Longmailai (Ed.) Studies on Dimasa History, Language and Culture, Volume 1, DVS Publishers, Guwahati.

3.10 CENTRE FOR INCLUSIVE DEVELOPMENT

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.

3.9.1 Programme Offered

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

3.9.2 Faculty and Areas of Interest

Director		
1.	Rajeev Kumar Doley, Ph.D. (IITG)	*Sociolinguistics*
Education Officer		
1.	Nandarani Choudhuri, M.A.- Eng.(CU), M.A.-Socio.(TU)	*English, Sociology*
Assistant Education Officer		
1.	Bhanu Panging Gogoi, Ph.D. (DU)	*Social and Cultural Anthropology*

LEGENDS: ***IITG–*** *Indian Institute of Technology Guwahati,* ***CU****– Calcutta University,* ***TU****-Tezpur University,* ***DU-****Dibrugarh University*

3.9.3 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.

3.11 CHANDRAPRABHA SAIKIANI CENTRE FOR WOMEN'S STUDIES

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.

3.10.1 Programme Offered

1 P. G. Diploma in Women's Studies

3.10.2 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*

3.10.3 Research Activities

- No. of papers published in the year 2016– 2017: 2
- No. of ongoing research projects: 1
- No. of current Ph.D. scholars: 0

3.10.4 Selected Publications

[1] Mahanta, M., Chandraprabha Saikiani, A crusader of women empowerment in Assam. International Mutidisciplinary Journal on Women and Gender Studies, 2(1), 2016.

[2] Goswami, M., Hegemonic Masculinity: Rethinking of the Concept in Art, Indian Journal of Arts (in press), 2017

3.12 ACADEMIC CURRICULA

3.11.1 Certificate 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

3.11.2 Post Graduate Diploma in Child Rights and Governance

First Semester				Second Semester		
Course Code	**Course Title**	**Cr.**		**Course Code**	**Course Title**	**Cr.**
DCRG101	Understanding Childhood	4		DCRG201	Governance and Social Policy	4
DCRG102	Child Rights as Human Rights-Paper I	4		DCRG202	Child Rights as Human Rights-Paper II	4
DCRG103	Exclusion and Vulnerabilities of Children with special focus on North East	4		DCRG203	Doing Research in Child Rights	4
DCRG104	Governance and Child Rights	4		DCRG204	Project/Internship	4

3.11.3 PG Diploma in Translation (Hindi)

First Semester				Second Semester		
Course Code	**Course Title**	**Cr.**		**Course Code**	**Course Title**	**Cr.**
HN 411	प्रयोजनमूलक हिंदी, भाषा–प्रयुक्ति और अनुवाद	4		HN 421	अनुवाद का व्यावहारिक पक्ष	4
HN 412	हिंदी भाषा की संवैधानिक स्थिति और अनुवाद	4		HN 422	जनसंचार माध्यम और अनुवाद	4
HN 413	अनुवाद विज्ञान और उसका सिद्धांत	4		HN 423	पारिभाषिक शब्दावली, कोश विज्ञान और अनुवाद	4
HN414	कार्यालयी हिंदी और अनुवाद	4		HN 424	परियोजना कार्य	4

3.11.4 Post Graduate 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

3.11.5 Integrated B.A.B.Ed. (Major English)

First Semester				Second Semester		
Course Code	**Course Title**	**Cr.**		**Course Code**	**Course Title**	**Cr.**
ED 104	Communicative English	3		ED 107	Education and Development	3
ED 105	Basic in Computer Application	3		NS 106	National Service Scheme/NCC	2

ED 106	Education: An Evolutionary Perspective	3		AS 102/EG 109	MIL II/ Alternative English II	2
AS 101/ EG 106	MIL I/Alternative English I	2		EC 102/ HS 102/ SO 102/ GE 102	Economics II / Sociology II History II / Geography II (Any two of the courses)	2+2
EC 101/ HS 101/ SO 101/ GE 101	Economics I / Sociology I/ History I / Geography I (Any two of the courses)	2+ 2		EG 103	Modern English Grammar	4
EG 102	Reading Literature	4		EG 107	Poetry From Chaucer to Dryden	3
Third Semester				**Fourth Semester**		
Course Code	**Course Title**	**Cr.**		**Course Code**	**Course Title**	**Cr.**
ED 202	Learner and Learning	3		ED 203	Contemporary Issues in Education	3
ED 205	Environmental Education	3		ED 204	Assessment and Evaluation	3
AS 201/EG 209	MIL III/Alternative English III	2		AS 202/EG 211	MIL/Alt. English IV	2
EC 201 / HS 201/ SO 201/GE 201	Economics III / Sociology III/ History III / Geography III (Any two of the courses)	2+ 2		EC 202 /HS 202/SO 202/GE 202	Economics IV /Sociology IV History IV / Geography IV (Any two of the courses)	2+2
EG 108	English Literary History I	3		EG 210	Fiction from Bunyan to Austen	3
EG 201	English Drama: Beginning to Shakespeare	4		EG 203	Phonetics of English and ELT	4
-	CBCT - I	3		-	CBCT - II	3
Fifth Semester				**Sixth Semester**		
Course Code	**Course Title**	**Cr.**		**Course Code**	**Course Title**	**Cr.**
ED 301	Teaching: Approaches and Strategies	3		ED 303	School Education in North East India	2
ED 302	Classroom Organization and Management	3		ED 304/ ED 305	Pedagogy A: Lang. I(Assamese)/ Pedagogy A: Lang. I (English)	
EG 204	Literary Criticism I	4		ED 306	Pedagogy B: Social Science I	3
EG 205	English Literary History II	4		EG 301	Literary Criticism II	4
EG 206	Introductory Linguistics	4		EG 305	Non-Fictional Prose	4
-	CBCT - III	3		EG 307	Seminar	2
				-	CBCT - IV	3
Seventh Semester				**Eighth Semester**		
Course Code	**Course Title**	**Cr.**		**Course Code**	**Course Title**	**Cr.**
ED 401/ ED 402	Pedagogy A: Lang. -II (Assamese) Pedagogy A: Lang. -II (English)	3		ED 405	School Internship-II (16 Weeks)	12
ED 403	Pedagogy B: Social Science- II	3		EG 306	Fiction: Victorian and Modern	4
ED 404	Initial School Experiences/ School Internship-I (Four Weeks)	3		EG 308	Indian Writing in English	4
EG 304	Drama: Seventeenth to Twentieth Century	4		-	CBCT- VI	3
EG 303	Poetry: Pre-Romantic to Modern	4				
-	CBCT- V	3				

3.11.6 Integrated M. A. in English

First Semester				Second Semester		
Course Code	**Course Title**	**Cr.**		**Course Code**	**Course Title**	**Cr.**
EG 102	Reading Literature	4		EG 103	Modern English Grammar	4
EG 105	English Literary History -I	4		EG 104	Poetry from Chaucer to Dryden	4
CS 101	Basics in Computer Application	3		ES 102	Elements of Environmental Science	3
				NS 102	NSS/NCC	2
MIL (ANY ONE)				**MIL (ANY ONE)**		
AS 101	MIL Assamese: Poetry (Early and Modern)	3		AS 102	Assamese : Drama	3
HN 101	Madhyakalin aur Adhunik Kabya (in Hindi)	3		HN102	Kahani aur Upanyas (in Hindi)	3
EG 106	Alternative English -I	3		EG 109	Alternative English-II	3
OPTIONAL COURSES (ANY TWO)				**OPTIONAL COURSES (ANY TWO)**		
SO 102	Introduction to Sociology	2		SO 103	Introduction to Sociological Thought	2
CT 161	Basic Concepts in Cultural Studies - I	2		CT 162	Introduction to Folklore Studies	2
MC 101	Introduction to Communication	2		MC 202	Journalism	2
Third Semester				**Fourth Semester**		
Course Code	**Course Title**	**Cr.**		**Course Code**	**Course Title**	**Cr.**
EG 201	English Drama from Beginning to Shakespeare	4		EG 202	Fiction from Bunyan to Austen	4
EG 203	Phonetics of English and ELT	4		EG 204	Literary Criticism -I	4
EG 205	English Literary History -II	4		EG 206	Introductory Linguistics	4
EG 207	Seminar Presentation	2		EG 208	Seminar Presentation	2
MIL (ANY ONE)				**MIL (ANY ONE)**		
AS 201	MIL (Assamese): Short Story and Novel	2		AS 202	MIL (Assamese) Essay, Structure of Assamese	2
EG 209	Alternative English -III	2		EG 211	Alternative English -IV	2
HN201	Natak Aur Ekanki(Hindi)	2		HN 202	Nibandh Aur Hindi Bhasa Ki Bhasik Sangrachana	2
OPTIONAL COURSES (ANY TWO)				**OPTIONAL COURSES (ANY TWO)**		
SO 201	Society in India	2		SO 202	Social Research Method	2
CT 163	Basic Concepts in Cultural Studies - II	2		CT 164	Cultural Studies: Its Development and Trends	2
MC 201	Advertising and Public Relations	2		MC 202	Electronic Media	2
Fifth Semester				**Sixth Semester**		
Course Code	**Course Title**	**Cr.**		**Course Code**	**Course Title**	**Cr.**
EG 301	Literary Criticism -II	4		EG 304	Drama: Seventeenth to Twentieth Century	4
EG 303	Poetry: Pre-Romantic to Modern	4		EG 306	Fiction : Victorian and Modern	4
EG 305	Non-Fictional Prose	4		EG 308	India Writing in English	4
EG 307	Seminar Presentation	2		EG 310	Project	5
EG 310	Project	3				
Seventh Semester				**Eighth Semester**		
Course Code	**Course Title**	**Cr.**		**Course Code**	**Course Title**	**Cr.**
EG 442	Jacobean to Victorian Poetry	4		EG 441	Renaissance Drama	4
EG 443	18th and 19th Century Fiction	4		EG 444	Literary Theory -I	4

EG 445	ELT	4		EG 446	Modern Prose	4
EG 447	Structure of English	4		EG 448	Language and Linguistics	4
-	CBCT-I	3		-	CBCT-II	3
Ninth Semester				**Tenth Semester**		
EG 553	Literary Theory -II	4		EG 554	Modern Drama	4
EG 587	Modern Poetry	4		EG 556	Postcolonial Writing	4
EG 589	Modern Fiction	4		EG 558	Dissertation	6
-	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)**		
EG 555	Indian Writing in English -I	4		EG 621	Indian Writing in English -II	4
EG 557	American Literature -I	4		EG 622	American Literature -II	4
EG 559	Critical Theory -I	4		EG 623	Critical Theory -II	4
EG 569	Translation : Theory and Practice -I	4		EG 624	Translation : Theory and Practice -II	4
EG 571	Gender and Literature -I	4		EG 625	Gender and Literature -II	4
EG 572	ELT -I	4		EG 626	ELT -II	4
EG 573	Linguistics -I	4		EG 627	Linguistics -II	4
EG 574	Cognitive Linguistics -I	4		EG 628	Cognitive Linguistics -II	4

3.11.7 B. Ed. Programme in Education

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	4
BD 405	Reading and Reflecting on Texts	2		BD 511	Drama and Art in Education	2
-	CBCT- I	3		-	CBCT (Foundation Course)	3
				-	CBCT - II	3
Third Semester				**Fourth Semester**		
Course Code	**Course Title**	**Cr.**		**Course Code**	**Course Title**	**Cr.**
BD 601	School Internship	4		BD 701	Gender, School and Society	3
BD 602/ BD603/ BD604/ BD 605/ BD606/ BD607/ BD 608	Teaching of Assamese -Part II/Teaching of English -Part II/ Teaching of Hindi -Part II/ Teaching of Social Science -Part II/ Teaching of Physical Science-Part-II/ Teaching of Mathematics -Part II/Teaching of Biological Science -Part II	14		BD 702	Knowledge and Curriculum -Part II	4
-	CBCT- III	3		BD 703	Creating an Inclusive School	3
				BD704/ BD705/ BD706	Guidance and Counselling / Peace Education/ Environmental Education	3

				BD 707	Critical Understanding of ICT	4
				BD 708	Understanding the Self	2
				-	CBCT- IV	3

3.11.8 M.A. in Cultural Studies

First Semester				**Second Semester**		
Course Code	**Course Title**	**Cr.**		**Course Code**	**Course Title**	**Cr.**
CT 131	Introduction to Cultural Studies	3		CT 136	Introduction to Cultural Theory	2
CT 132	Cultural Studies and Allied Discipline	2		CT 137	Performance and Culture	3
CT 133	Folklore and Culture- I	3		CT 138	Ethnicity and Nationalism	2
CT 134	Reading Culture -I	3		CT 139	Folklore and Culture -II	3
CT 135	Culture and Oral History	2		CT 140	Reading Culture- II	3
-	CBCT - I	3		-	CBCT- II	3
Third Semester				**Fourth Semester**		
Course Code	**Course Title**	**Cr.**		**Course Code**	**Course Title**	**Cr.**
CT 141	Methods of Cultural Studies	2		CT 146	Dissertation	6
CT 142	Culture and Heritage	3		-	Elective- I	3
CT 143	Media and Culture	3		-	Elective- II	3 + 3
CT 144	Gender and Culture-I	3		-	CBCT-IV	3
CT 145	North East Studies	2				
-	CBCT - III	3				
Elective Courses –I (Any One from the Following courses)				**Elective Courses –II (Any One from the Following courses)**		
Course Code	**Course Title**	**Cr.**		**Course Code**	**Course Title**	**Cr.**
CT 147	Culture, Heritage and Cyber Space	3		CT 150	Cultural Tourism	3
CT 148	Gender and Culture -II	3		CT 151	Cross - Cultural Studies : North East India and South East Asia	3
CT 149	Film and Television Studies	3		CT 152	Culture and Science	3
				CT 153	Culture and Environment	3

3.11.9 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/ MA 205	Education Administration, Planning and Financing/Education for Special Needs Children	4
-	CBCT - I	3		ED 113	Foundation Course: Professionalism in Teacher Education	3
				-	CBCT - 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	3
MA 304/ MA 305	Educational Guidance and Counselling / Open and Distance Learning	4		MA 404	Dissertation	6
-	CBCT - III	3		-	CBCT - IV	3

3.11.10 M. A. in English

First Semester				**Second Semester**		
Course Code	**Course Title**	**Cr.**		**Course Code**	**Course Title**	**Cr.**
EG 442	Jacobean to Victorian Poetry	4		EG 441	Renaissance Drama	4
EG 443	18th and 19th Century Fiction	4		EG 444	Literary Theory -I	4
EG 445	ELT	4		EG 446	Modern Prose	4
EG 447	Structure of English	4		EG 448	Language and Linguistics	4
-	CBCT-I	3		-	CBCT-II	3
Third Semester				**Fourth Semester**		
Course Code	**Course Title**	**Cr.**		**Course Code**	**Course Title**	**Cr.**
EG 553	Literary Theory -II	4		EG 554	Modern Drama	4
EG 587	Modern Poetry	4		EG 556	Postcolonial Writing	4
EG 589	Modern Fiction	4		EG 558	Dissertation	6
-	Elective- I	4		-	Elective- II	4
-	CBCT-III	3		-	CBCT-IV	3
Elective –I (Any One from the following Courses)				**Elective –I (Any One from the following Courses)**		
Course Code	**Course Title**	**Cr.**		**Course Code**	**Course Title**	**Cr.**
EG 555	Indian Writing in English -I	4		EG 621	Indian Writing in English -II	4
EG 557	American Literature -I	4		EG 622	American Literature -II	4
EG 559	Critical Theory -I	4		EG 623	Critical Theory -II	4
EG 569	Translation : Theory and Practice -I	4		EG 624	Translation : Theory and Practice -II	4
EG 571	Gender and Literature -I	4		EG 625	Gender and Literature -II	4
EG 572	ELT -I	4		EG 626	ELT -II	4
EG 573	Linguistics -I	4		EG 627	Linguistics -II	4
EG 574	Cognitive Linguistics -I	4		EG 628	Cognitive Linguistics -II	4

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

First Semester				**Second Semester**		
Course Code	**Course Title**	**Cr.**		**Course Code**	**Course Title**	**Cr.**
LE 401	Basic Phonetics and Phonology	4		LE 402	Language Documentation	4
LE 403	Basic Morphology and Syntax	4		LE 404	Language Technology and Archiving	4
LE 405	Basic Semantics and Pragmatics	4		LE 406	Sociolinguistics and Sociology of Language	4
LE 407	Field Linguistics	4		LE 408	Language Revitalization	4
-	CBCT	3		-	CBCT	3
Third Semester				**Fourth Semester**		
Course	**Course Title**	**Cr.**		**Course**	**Course Title**	**Cr.**

Code				Code		
LE 501	Language Typology and Language Universals	4		LE 502	Grammar Writing, Lexicography and Lexical Database	4
LE 503	Language Structures of Indian Languages	4		LE 504	Different Approaches to Grammatical Theories	4
LE 505	Language Analysis of Endangered Languages	4		LE 516	Dissertation*	6
-	Elective- I	3		-	Elective- II	3
-	CBCT	3		-	CBCT	3
Electives -I				**Electives -II**		
Course Code	**Course Title**	**Cr.**		**Course Code**	**Course Title**	**Cr.**
LE 511	Advanced Field Linguistics and Language Documentation -I	3		LE 512	Advanced Field Linguistics and Language Documentation - II	3
LE 513	Advance Language Technology and Archiving -I	3		LE 514	Advance Language Technology and Archiving -II	3

** 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'.

Note: The Syllabuses for MA (English), Integrated MA/BABEd (English Major), MA (Linguistics and Language Technology), and MA (Linguistics and Endangered Languages) programmes are in the process of revision and updating.

3.11.12 M. A. in Linguistics and Language Technology

First Semester				**Second Semester**		
Course Code	**Course Title**	**Cr.**		**Course Code**	**Course Title**	**Cr.**
LG 421	Philosophical Underpinnings of Modern Linguistics	4		LG 425	Syntax -II	4
LG 422	Phonetics and Phonology -I	4		LG 426	Phonology -II	4
LG 423	Morphology	4		LG 427	Cognitive Linguistics	4
LG 424	Syntax -I	4		LG 428	Field Linguistics	4
-	CBCT	3		LG 429	Introduction to Computational Linguistics	3
				-	CBCT	3
Third Semester				**Fourth Semester**		
Course Code	**Course Title**	**Cr.**		**Course Code**	**Course Title**	**Cr.**
LG 501	Language Universals and Language Typology	4		LG 508	Historical Linguistics	3
LG 502	Semantics	4		LG 509	Sociolinguistics	3
LG 503	Natural Language processing	4		LG 514	Dissertation	6
-	Elective- I	4		-	Elective- II	4
-	CBCT	3		-	CBCT	3
Elective -I (Any One from the following Courses)						
Course Code	**Course Title**	**Cr.**		**Course Code**	**Course Title**	**Cr.**
LG 504	Advanced Syntax -I	4		LG 510	Advanced Syntax -II	4
LG 505	Advanced Cognitive Linguistics -I	4		LG 511	Advanced Cognitive Linguistics -II	4
LG 506	Advanced Field Linguistics -I (Mainly on Tibeto Burman Languages)	4		LG 512	Advanced Field Linguistics-II (Mainly on Tibeto Burman Languages)	4

LG 507	Advanced Phonology -I	4		LG 513	Advanced Phonology -II	4
LG 515	Advanced Computational Linguistics-I	4		LG 516	Advanced Computational Linguistics-II	4
LG 514 Dissertation (Students will require to write a dissertation of 6000 words on a topic from his/her area of specialization).						

3.11.13 M.A. in Hindi

First Semester				**Second Semester**		
Course Code	**Course Title**	**Cr.**		**Course Code**	**Course Title**	**Cr.**
HN 401	आदि कालीन 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)**		
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)				**Fourth Semester (Optional –III)**		
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	शैलीविज्ञान	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)						
Course Code	**Course Title**	**Cr.**				
HN 525	तुलनात्मक साहित्य : स्वरूप, उद्भव और विकास	3				
HN 526	भारतीय साहित्य : अवधारणा और विशेषताएँ	3				
HN 527	पूर्वांचल की संस्कृति और साहित्य	3				
HN 528	लघु शोध –प्रबंध / परियोजनाकार्य	6				
-	CBCT	3				

3.11.14 M.A. in Mass Communication and Journalism

First Semester				Second Semester		
Course Code	**Course Title**	**Cr.**		**Course Code**	**Course Title**	**Cr.**
MC 490	Communication Theories	3		MC 495	Communication Research Methods	3
MC 491	History of Communication and Media	3		MC 496	Introduction to New Media	3
MC 492	Media Writing	3		MC 497	Media Laws and Ethics	3
MC 493	Advertising and Public Relations	3		MC 498	Broadcast Media : Radio	3
MC 494	Visual Communication and Photography	3		MC 499	Broadcast Media : Television	3
-	CBCT	3		-	CBCT	3
Third Semester				**Fourth Semester**		
Course Code	**Course Title**	**Cr.**		**Course Code**	**Course Title**	**Cr.**
MC 500	Communication for Social Change	3		MC 514	Film Studies	3
MC 501	Political and International Communication	3		MC 515	Media in Northeast India	3
MC 502	Communication Research Project	6		MC 516	Internship (non-credit) ##	-
MC 503	Internship #	3		-	CBCT	3
-	CBCT	3				
Students will opt for one paper from each of Group-A and Group-B in semester III and one from Group-C in semester IV.						
Group –A Electives: (Third Semester)				**Group-B Electives: (Third Semester)**		
Course Code	**Course Title**	**Cr.**		**Course Code**	**Course Title**	**Cr.**
MC 504	Specialized Reporting and Editing	3		MC 509	Photo Journalism	3
MC 505	Online Multi- Camera Production	3		MC 510	Folk and Community Media	3
MC 506	Radio Production	3		MC 511	Assamese Journalism	3
MC 507	Corporate Communication	3		MC 512	Media, Culture and Society	3
MC 508	Convergent Journalism	3		MC 513	Media Management	3
Group-C Electives: (Fourth Semester)						
Course Code	**Course Title**	**Cr.**				
MC 517	Documentary Production	4				
MC 518	Community Radio	4				
MC 519	Web Design / Animation	4				
MC 520	TV Reporting	4				

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

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

3.11.15 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				

3.11.16 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

3.11.17 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

3.11.18 Ph. D. Programmes in Humanities and Social Sciences

A student admitted to the Ph.D. programme shall be required to complete specified course work prior to the submission of Plan of Research as per the recommendation of the Departmental Research Committee (DRC). Currently a Ph.D. scholar is required to complete courses of minimum 16 credits which also include 4 credits of the Research methodology on the areas of research and/or areas related to that of research to be carried out by the students (1 credit generally consists of one hour of lecture/ tutorials or two hours of practical in a week). As a step initiated by the University towards implementation of the Choice Based Credit Transfer (CBCT) system, 4 credits out of the stipulated credit requirement should be from another Department. The course work should be completed within the first two semesters. Employed part-time candidates shall be given the option of carrying out the course work during any two of the first three semesters.

4. SCHOOL OF MANAGEMENT SCIENCES

4.1 COMMERCE

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

4.1.1 Programme 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.)

4.1.2 Faculty and Areas of Interest

Professor		
1.	Subhrangshu Sekhar Sarkar,* Ph.D. (TU)- HoD (i/c)	*Accounting, Taxation, Social Development Issues*
Assistant Professors		
1.	Reshma Tiwari, Ph.D (GU)	*Accounting, Financial Inclusion and Microfinance*
2.	Rishabh Goswami, M. Com (GU)	*Accounting and Finance*
3.	Farah Hussain Ph. D. (DU)	*Econometrics*
4.	Manish Kumar	*Banking and Finance*

*** Recognized Supervisor**

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

4.1.3 Facilities

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

4.1.4 Research Activities

- No. of paper published in the year 2016-2017:
- No. of ongoing research projects:
- No. of current Ph.D. scholars:

4.1.5 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.

4.2 BUSINESS ADMINISTRATION

The Department of Business Administration came into existence in 1995 with the objective of producing quality management professionals and carrying out research in the areas of Finance, Human Resources, Marketing, Production and Systems Management. The Department has been conducting PG Diploma in Tourism Management since 2002, which 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 rated "A3" by AIMA in the year 2012. The department is awarded 3rd Asia's Best B-school award for its innovation in teaching methodology in 2012, rated A+ by Business India, rated "A" by Discovery Education Media for 2012-13 and recipient of "Best Business School Award" in the category of placement (NE Region) awarded by Bureaucracy Today. The department was conferred with "A" category by Business Chronicle B-School Survey and placed among the top 10 B-School in the Eastern Region. It was ranked 27th among all institutions offering Management Education in India by NIRF (ministry of HRD, Govt. of India). The Department is a recipient of research grant under the UGC-SAP (DRS-I).

4.2.1 Programmes offered

1 Master of Business Administration (MBA) (Admission process for this programme is already over for the Academic Session 2017-18.)
2 Master of Tourism and Travel Management
3 Ph.D.

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

4.2.2 Faculty and Areas of Interest

Professors		
1.	Mrinmoy Kumar Sarma,* Ph.D. (TU)	*Services Marketing, Tourism Marketing*
2.	Chandana Goswami,* Ph.D. (GU), Dean-SoMS	*Financial Management, General Management*
3.	Subhrangshu Sekhar Sarkar,* Ph.D. (TU)	*Accounting, Taxation, Social Development Issues*
4.	Debabrata Das,* Ph.D. (RGU)	*Financial Management, Financial Markets and Development Finance*
5.	Chandan Goswami,* Ph.D. (TU)	*Marketing, Promotional Strategies, Consumer Behaviour and Tourism*
6.	Papori Baruah,* Ph.D. (TU)- HoD	*Human Resource Management, Organization Behaviour, Change Management, Rural Development , NGOs.*
Associate Professors		
1.	Tridib Ranjan Sarma,* Ph.D. (TU)	*Operations Management, Project Management, Tourism*
2.	Anjan Bhuyan,* Ph.D. (TU)	*Economics, Rural Economics, Tourism Management, Entrepreneurship*
3.	Arup Roy,* Ph. D. (TU)	*Microfinance, Stock Market, Development Finance, Social Entrepreneurship.*
Assistant Professors		

1.	Heera Barpujary, Ph.D. (TU)	*Knowledge Management, Web Technology*
2.	Kakali Mahanta, Ph.D. (DU)	*Human Resource Management, Employee Engagement, Work Life Balance*
3.	Runumi Das, Ph.D. (GU)	*Marketing, Rural Marketing*
4.	Mridul Dutta, Ph.D. (GU)	*Community Based Tourism, Intellectual Property Rights*

*** Recognized Supervisor**

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

4.2.3 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 A.C. student lounge.

4.2.4 Research Activities

- No. of papers published in the year 2016-2017: 07
- No. of ongoing research projects: 02
- No. of current Ph.D. scholars: 21

4.2.5 Selected Publications

[1] Goswami, C. & Begum, R. A study of Home-Based Enterprises and Street Vendors of Assam, India, *International Journal of Economic Policy in Emerging Economies*,9(3), 290-323. 2016.

[2] Roy, A. A Model of Security Selection and Portfolio Building through Z-scores, *Global Business Review*, 17(2), 389-399, 2016.

[3] Roy, A. Do Microfinance Loans have any Effect on the Health, Nutrition and Schooling of Children of the Clients of MFIs?, *International Journal of Multidisciplinary Research Centre*, 2 (8), 26-40, 2016.

[4] Chutia, L. J. & Sarma, M. K. Commercialisation of Traditional Crafts of South and South East Asia: A Conceptual Model Based on Review of Literature, *IIM Kazhikode Society & Management Review*, 5 (2), 2016.

[5] Sarkar, S. S. Technological Innovations in the Banking Sector: A Trend Analysis, *Journal of Commerce and Management Thought*, 7 (1), 171-185, 2016.

4.3 CENTRE FOR DISASTER MANAGEMENT

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.

4.3.1 Faculty and Areas of Interest

Assistant Professors		
1.	Dipak Nath, Ph. D. (GU)	Disaster Risk Assesment and Risk Mitigation Approaches

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

4.3.2 Research Activities

- No. of papers published in the year 2015-16 : 2

4.3.3 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.

4.4 ACADEMIC CURRICULA

4.4.1 Integrated M. Com

First Semester				**Second Semester**		
Course Code	**Course Title**	**Cr.**		**Course Code**	**Course Title**	**Cr.**
IC 101	English Comprehension Skill	3		IC 121	Macro Economics	3
IC 102	Business Organization and Environment	4		IC 122	Principles and Practice of Management	4
IC 103	Micro Economics	3		IC 123	Financial Accounting -II	4
IC 104	Financial Accounting - I	3		IC 124	Business Mathematics- I	4
IC 105	Business Regulatory Framework -I	3		ES 103	Environmental Science	4
	GE-I	3				
Third Semester				**Fourth Semester**		
Course Code	**Course Title**	**Cr.**		**Course Code**	**Course Title**	**Cr.**
IC 201	Business Regulatory Framework -II	3		IC 221	Business Mathematics– II	4
IC 202	Basic Statistics	4		IC 222	Indirect Taxes	4
IC 203	Cost Accounting	3		IC 223	Fundamentals of Insurance	4
IC 204	Inter-Personal Skills	3		IC 224	Banking Laws and Practice	4
IC 205	Corporate Accounting - I	3		IC 225	Corporate Accounting -II	4
IC 206	Functional Communicative Skill	3			GE-III	3
	GE-II	3				

Fifth Semester				**Sixth Semester (Any one of courses from DSE-1, DSE-2, DSE-3, DSE-4, DSE-5 and DSE-6 each)**			
Course Code	**Course Title**	**Cr.**		**Course Code**	**Course Title**	**Course Type**	**Cr.**
IC 301	Company Law	2		IC 321	Computer and Its Application in Accounting and Taxation	DSE-1	4
IC 302	Business Finance	3		IC 341	Computer and Its Application in Banking and Finance		
IC 303	Corporate Accounting -III	4		IC 322	Auditing	DSE-2	3
IC 304	Income Tax - Law and Practice	4		IC 342	Indian Financial Market and Financial System		
IC 305	Preparing a Business Plan	4		IC 323	Management Accounting	DSE-3	4
IC 306	Inter-Personal Skills - II	3		IC 343	Financial Services		
	GE-IV	3		IC 324	Public Finance	DSE-4	4
				IC 344	Banking Regulatory Framework		
				IC 325	Tax Planning and Procedures	DSE-5	4
				IC 345	Capital Market Operations		
				IC 326	Project in Accounting/ Taxation	DSE –6	3
				IC 346	Project in Banking/ Finance		

4.4.2 Integrated M.Com./M.Com.

Seventh/First Semester				Eighth/Second Semester		
Course Code	**Course Title**	**Cr.**		**Course Code**	**Course Title**	**Cr.**
IC 501	Organizational Theory and Behaviour	3		IC 521	Human Resource Management	3
IC 502	Financial Statement Analysis	3		IC 522	Marketing Management	3
IC 503	Statistics for Business Decisions	4		IC 523	Managerial Economics	3
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
Ninth/ Third Semester				**Tenth/ Fourth Semester**		
Course Code	**Course Title**	**Cr.**		**Course Code**	**Course Title**	**Cr.**
IC 601	Strategic Management	3		IC 625	Strategic Financial Management	3
IC 602	Management Information System	3				
IC 605	Project Work	4				
GROUP 'A' : Accounting and Taxation				**GROUP 'A' : Accounting and Taxation**		
IC 603	Corporate Financial Reporting	4		IC 621	Advance Auditing	3
IC 604	Business Valuation	3		IC 622	Strategic Cost and Management Accounting	3
				IC 623 Or IC 630	Innovations in Accounting Or Project Planning and Control	3
				IC 624	Corporate Tax Management	3
GROUP 'B': Banking and Finance Group				**GROUP 'B': Banking and Finance Group**		
IC 606	Retail Banking	4		IC 626	Security Analysis and Portfolio Management	3
IC 607	Insurance Management	3		IC 627	International Finance	3
				IC 628	Marketing of Financial Services	3
				IC 629 Or IC 630	Credit and Risk Management Or Project Planning and Control	3

4.4.3 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				Fourth Semester		
Course Code	**Course Title**	**Cr.**		**Course Code**	**Course Title**	**Cr.**
TM 601	Research Methods	3		TM 641	Destination Planning and Management	3
TM 602	Tourism Entrepreneurship	3		TM 642	Sustainable Tourism	3
TM 603	Foundation of Information Technology and Computerised Reservation System	3		TM 643	Legal and Ethical Issues in Tourism	3
TM 604	Hospitality Management	3		TM 661/ TM662/ TM 663/ TM 644	Department Centric Elective -IV	3
TM 605	Summer Internship	3			Department Centric Elective-V	3
TM 611/ TM 612	Department Centric Elective -III	3		-	Open Elective	3
-	Open Elective- Foreign Language Base	3				
Department Centric Elective –I				**Department Centric Elective –II**		
Course Code	**Course Title**	**Cr.**		**Course Code**	**Course Title**	**Cr.**
TM 511	Soft Skill Development	3		TM 561	Tour Guiding and Local Handling	3
TM 512	Leisure Delivery System	3		TM 562	Basic Cargo Rating and Handling	3
Department Centric Elective –III				**Department Centric Elective –IV and V**		
Course Code	**Course Title**	**Cr.**		**Course Code**	**Course Title**	**Cr.**
TM 611	Tourism in North East India	3		TM 661	Managerial and Financial Decisions for Small Business	3
TM 612	Promotional Strategies in Tourism	3		TM 662	MICE Management	3
				TM 663	Tourist Behaviour	3
				TM 664	Basic Airfare	3

4.4.4 Master of Business Administration

First Semester				Second Semester		
Course Code	**Course Title**	**Cr.**		**Couse Code**	**Course Title**	**Cr.**
BA 501	Foundations of Management	3		BA 510	Research Methods in Business	3
BA 502	Financial Management	3		BA 511	Managerial Economics and Legal Environment	3
BA 503	Marketing Management	3		-	Specialization A -I	3
BA 504	Human Resource Management	3		-	Specialization A- II	3
BA 505	Operations Management	3		-	Specialization B-I	3
BA 506	Quantitative Techniques	2		-	Specialization B-II	3
BA 507	Organizational Behaviour	2		-	CBCT	3
-	CBCT	3		-	Elective-II	3
-	Elective-I	3				
Third Semester				**Fourth Semester**		
Course Code	**Course Title**	**Cr.**		**Course Code**	**Course Title**	**Cr.**
BA 601	Management Information System	3		BA 606	Strategic Management	3
BA 602	Summer Internship Project	3		BA 607	Business Ethics and Corporate Social Responsibility	2
-	Specialization A-III	3		BA 608	Entrepreneurship Development	2

-	Specialization A-IV	3		-	CBCT	3
-	Specialization B-III	3		-	CBCT	3
-	Specialization B-IV	3		-	Elective-IV	3
-	CBCT	3				
-	Elective-III	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.**
BA 508	Financial Accounting	3		BA 512	Systems Analysis and Design	3
BA 509	Information Technology Management	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

5. SCHOOL OF SCIENCES

5.1 CHEMICAL SCIENCES

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

5.1.1 Programmes offered

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

5.1.2 Faculty and Areas of Interest

Professors		
1.	M. Lakshmi Kantam, Adjunct Professor, Ph.D. (KU)	*Homogeneous/ Heterogeneous Catalysis*
2.	Swapan Kumar Dolui,* Ph.D. (IITKgp)	*Fibre Reinforced Plastic, Self Reinforced Plastic, Water Based Coating and Adhesive, Diffusion of Small Molecule Through Plastic*
3.	Nashreen Islam,* Ph.D. (NEHU)	*Synthetic Inorganic Chemistry and Biomimetic Chemistry of Transition Metals, Catalysis*
4.	Tarun Kumar Maji,* Ph.D. (CU)	*Grafting of Fibres, Rubber Processing, Reaction Engineering, Emulsion Polymer, Textile Finishing*
5.	Robin Kumar Dutta,* Ph.D. (NEHU)	*Surfactants and Micelles, Water Purification*
6.	Niranjan Karak,* Ph.D. (IITKgp)	*Synthesis of Advanced Polymers, Polymer Nanocomposites and Nanomate -rials*
7.	Ramesh Chandra Deka,* Ph.D. (NCL)	*Theoretical Chemistry, Catalysis and Drug Design*
8.	Ashim Jyoti Thakur,* Ph.D. (NEIST)-HoD	*Heterocyclic Chemistry, Organic Synthesis and Molecular Container Chemistry*
9.	Ashwini Kumar Phukan,* Ph.D. (UoH)	*Theoretical Inorganic and Organometallic Chemistry*
10.	Ruli Borah,* Ph.D. (NEIST)	*Synthesis of Bioactive Molecule, Development of Green Methodologies for Organic Transformation*
Assistant Professors		
1.	Panchanan Puzari,* Ph.D. (IITG)	*Physical Chemistry, Biosensor*
2.	Kusum Kumar Bania,* Ph.D. (TU)	*Heterogeneous Catalysis*
3.	Pankaj Bharali,* Ph.D. (IICT)	*Inorganic Materials, Catalysis, Adsorption*
4.	Nayanmoni Gogoi,* Ph.D. (IITB)	*Molecular Magnet, Functional Metal Organic Framework*

5.	Bipul Sarma,* Ph.D. (UoH)	*Solid State Chemistry, Supramolecular Chemistry and Crystallography*
6.	Sajal Kumar Das,* Ph.D. (CDRI & JNU)	*Synthetic Organic Chemistry*
7.	Utpal Bora,* Ph.D. (NEIST)	*Synthetic Organic Chemistry*
8.	Sanjeev Pran Mahanta,$ Ph.D. (UoH) Ad-hoc	*Physical Chemistry, Molecular Engineering and Molecular Recognition*
DST Inspire Faculty		
1.	Sanjay Pratihar,$ Ph.D. (IITKgp)	*Inorganic Chemistry, Organometallic Chemistry*

***Recognized Supervisor $ Recognized Associate Supervisor**

LEGENDS: ***KU****-Kurukshetra University Haryana,* ***GU****- Gujarat University,* ***IITKgp****-Indian Institute of Technology Kharagpur,* ***NEHU****-North Eastern Hill University Shillong,* ***CU****-Calcutta University,* ***NCL****- National Chemical Laboratory Pune,* ***NEIST-****North East Institute of Science and Technology Jorhat ,* ***UoH****-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.*

5.1.3 Facilities

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

5.1.4 Award

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

5.1.5 Research Activities

- No. of papers published in the year 2016-2017: 135
- No. of ongoing research projects : 25
- No. of current Ph.D. scholars : 64

5.1.6 Selected Publications

[1] Sharma, M., Das, B., Karunakar, G. V., Satyanaryana, L. and Bania, K. K., Chiral Ni-Schiff Base Complexes Inside Zeolite-Y and their Application in Asymmetric Henry Reaction: Effect of Initial Activation with Microwave Irradiation, J. Phys. Chem. C, 120, 13563-13573, 2016.

[2] Hazarika, D. and Karak, N., Biodegradable tough waterborne hyperbranched polyester/ carbon dot nanocomposite: Approach towards an eco-friendly material, Green Chemistry, 18, 5200-5211, 2016 .

5.2 ENVIRONMENTAL SCIENCE

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.

5.2.1 Programmes offered

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

5.2.2 Faculty and Areas of Interest

Professors		
1.	Kushal Kumar Baruah,* Ph.D. (PAU)	*Environmental Plant Physiology and Biochemistry*
2.	Kali Prasad Sarma,* Ph.D. (NEHU)	*Water and Soil Pollution, Hydro-geochemistry, Remediation of Toxic Substances*
3.	Raza Rafiqul Hoque,* Ph.D. (JNU)	*Air Pollution and Environmental Monitoring and Assessment*
4.	Apurba Kumar Das,* Ph.D. (JNU)-HoD	*Geomorphology, Regional Climate*
Associate Professor		
1.	Ashalata Devi,* Ph.D. (NEHU)	*Forest Ecology, Wildlife and Biodiversity Conservation*
Assistant Professors		
1.	Nirmali Gogoi,* Ph.D. (DU)	*Stress Physiology and Biochemistry*
2.	Satya Sundar Bhattacharya,* Ph.D. (VB)	*Vermiculture, Plant Nutrition and Soil Fertility Management*
3.	Manish Kumar,* Ph.D. (UT)	*Hydro-geochemistry, Groundwater Modeling, Contaminant Transport, Heavy Metal Speciation, Isotope Fingerprinting, Soil and Water Pollution*
4.	Sumi Handique, M.Sc. (JNU)	*Geochemistry*
5.	Amit Prakash,* Ph.D. (JNU)	*Atmospheric Processes; Air and Noise Pollution Monitoring and Modelling Environmental System Modelling, Urban Climate*
6.	Sudip Mitra,* Ph.D. (IARI), *(*On Lien*)*	*Environmental Science - Environmental Chemistry*
7.	Nayanmoni Gogoi, Ph.D (IIT G)	*Ecology*, *Geochemistry, Hydrochemestry, Geostatistics, Pollution Indexing, Nanobiotechnology, Wetland Productivity*
8.	Santa Kalita, Ph.D (GU)	*Entomology*

*** Recognized Supervisor**

LEGENDS: ***PAU****-Punjab Agricultural University,* ***NEHU****-North Eastern Hill University Shillong,* ***JNU****-Jawaharlal Nehru University New Delhi,*

__DU__-Dibrugarh University, __VB__-Visva Bharati Santiniketan, __UT__-The University of Tokyo, __IARI__-Indian Agricultural Research Institute New Delhi, __HoD__- Head of the Department.

5.2.3 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.

5.2.4 Research Activities

- No. of papers published in the year 2016-17: 57
- No. of ongoing research projects: 17
- No of current Ph.D. scholars: 39

5.2.5 Selected Publications

[1] 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 Pollut. 228: 17. DOI: 10.1007/s11270-016-3092-8

[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] Bhattacharya, S.S., & Kim, K.H. (2016). Utilization of coal ash: Is vermitechnology a sustainable avenue? Renewable and Sustainable Energy Reviews. 58: 1376-1366.

[4] Hussain, K., Balachandran, S., & Hoque, R.R. (2016). Sources of polycyclic aromatic hydrocarbons in sediments of the Bharalu River, a tributary of the River Brahmaputra in Guwahati, India. Ecotoxicology and Environmental Safety. 122 :61-67

[5] Sarma, J. & Devi, A. (2016): Role of dicot angiosperms in the livelihood of Mishing community in Sonitpur district, Assam, India. Tropical Plant Research. 3(3): 662–672. DOI: 10.22271/tpr.2016.v3.i3.087

5.3 MATHEMATICAL SCIENCES

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), Computational Fluid Dynamics, Coding theory, Differential Equations etc. The Department is currently supported by the UGC under its SAP (DRS-II) scheme and DST-FIST grant.

5.3.1 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.

5.3.2 Faculty and Areas of Interest

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

*** Recognized Supervisor**

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

5.3.3 Facilities

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

5.3.4 Research Activities

- No. of papers published in the year 2016-2017: 10
- No. of ongoing research projects: Nil
- No of current Ph.D. scholars: 21

5.3.5 Selected Publications

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

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

[3] Kalita, D. Properties of first eigenvectors and first eigenvalues of nonsingular weighted directed graphs. Electron. J. Linear Algebra, 30, 227—242, 2015.

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

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

5.4 MOLECULAR BIOLOGY AND BIOTECHNOLOGY

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

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

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

5.4.1 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. 3000/- only (for detailed information please visit: http:// www.tezu.ernet.in/dmbbt) by the DBT supported M.Sc. Biotechnology teaching programme.

5.4.2 Faculty and Areas of interest

Professors		
1.	Bolin Kumar Konwar,* Ph.D. (IC)	*Petroleum Biotechnology, Plant Biotechnology, Genetic Engineering and Metagenomics, Bioenergy*
2.	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*
3.	Ashis Kumar Mukherjee,* Ph.D. (BU), Dean, R &D	*Snake Venom Biochemistry and Microbial Biotechnology*
4.	Sashi Baruah,* Ph.D. (PGIMER)	*Innate Immunity and Immunogenetics (Heterogeneity and Evolution of Immune Responses)*
Associate Professors		
1.	Suvendra Kumar Ray,* Ph. D. (CCMB)- HoD	*Molecular Plant -Microbe Interactions, Molecular Evolution*
2.	Manabendra Mandal,* Ph.D. (IGIB)	*Probiotics and Nutrition, Microbial Biofilm, Bioenergy*
3.	Anand Ramteke,* Ph.D. (JNU)	*Cancer Genetics and Chemoprevention*
4.	Robin Doley,* Ph.D. (TU)	*Anti-haemostatic Proteins from Snake Venom and Hematophagus Insect*
Assistant Professors		
1.	Tapas Medhi,* Ph.D. (IITKgp)	*Enzymology and Bioprocess Engineering*
2.	Eshan Kalita,* Ph.D. (NIPGR-GU)	*Nanobiotechnology and Plant Functional Biology*

3.	Surya Prakash G. Ponnam,*Ph.D. (LVPEI-UoH)	*Molecular Genetics and Disease Biology of Various Human Diseases/Disorders*
4.	Anupam Nath Jha,* Ph.D. (IISc)	*Computational Biophysics, Bioinformatics*
5.	Rupak Mukhopadhya,* Ph.D. (IACS-JU)	*Cellular and Molecular Biology (Sub Areas: Inflammation, Cardiovascular Disease), Microbial Biotechnology*
6.	Sougata Saha,* Ph.D. (IISc)	*Cellular and Molecular Biology (Protein Arginylation and its Role in Cellular Function, Obesity)*
7.	Nima D. Namsa,* Ph.D. (IISc)	*Molecular Biology of Rotavirus*
8.	Suman Dasgupta,* Ph.D. (VB)	*Insulin Resistance and Type 2 Diabetes*
9.	Mattaparthi Venkata Satish Kumar,* Ph.D. (IITG)	*Computational Biotechnology and Bioinformatics*
10.	Jyoti Prasad Saikia, Ph. D (TU)- Ad-hoc	*Plant Biotechnology*

*** Recognized 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**-Visva Bharati, Santiniketan, **IITG**-Indian Institute of Technology Guwahati, **HoD**-Head of the Department.*

5.4.3 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.

5.4.4 Research Activities

- No. of papers published in the year 2016-2017 : 50
- No. of ongoing research projects: 32
- No of current Ph.D. scholars: 55

5.4.5 Selected Publications

[1] Manhar, A.K., Saikia, D., Borah, A., Das, A.S., Gupta, K., Roy, R., Mahanta, C.L., Mukhopadhyay, R. and Mandal, M., Assessment of goat milk-derived potential probiotic L. lactis AMD17 and its application for preparation of dahi using honey. Annals of Microbiology (2016)

[2] Satapathy SS, Powdel BR, Buragohain AK, Ray SK. (2016). Discrepancy among the synonymous codons with respect to their selection as optimal codon in bacteria. DNA Res. (2016)

[3] Sanjeev, A., Sahu, R.K. and Mattaparthi, V.S.K. Potential of Mean Force and Molecular Dynamics Study on the transient interactions between & synuclein that drive inhibition of synuclein aggregation. Journal of Biomolecular Structure and Dynamics (2016)

[4] Sharma, M., Iyer, J.K., Shih, N., Majumder, M., Mattaparthi, V.S.K., Mukhopadhyay, R. and Doley, R. Daboxin P, a Major Phospholipase A2 Enzyme from the Indian Daboia russelii russelii Venom Targets Factor X and FactorXa for Its Anticoagulant Activity. PLoS ONE, (2016).

5.5 PHYSICS

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. Course work in the chosen research areas is mandatory for all the doctoral students.

5.5.1 Programmes offered

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

5.5.2 Faculty and Areas of Interest

Professors		
1.	Ashok Kumar,* Ph.D. (IITK)- Dean, SS	*Condensed Matter Physics, Solid State Ionics*
2.	Jayanta Kumar Sarma,* Ph.D. (GU)	*Theoretical High Energy Physics, Particle Physics*
3.	Nidhi Saxena Bhattacharyya,* Ph.D. (DU^)	*Microwave Devices, Antennas and EMI Materials*
4.	Nilakshi Das,* Ph.D. (GU)	*Plasma Physics*
Associate Professors		
1.	Gazi Ameen Ahmed,* Ph.D. (GU)- HoD	*Laser Physics, Optoelectronics*
2.	Dambarudhar Mohanta,* Ph.D. (TU)	*Condensed Matter Physics, Nanoscience*
3.	Pritam Deb,* Ph.D. (JU)	*Nanoscience and Nano Technology, Physics of Materials*
4.	Pralay Kumar Karmakar,* Ph.D. (GU)	*Plasma Physics, Astrophysics, Nonlinear Dynamics*
5.	Mrinal Kumar Das,* Ph.D. (GU)	*Theoretical High Energy Physics, Nuclear Physics*
6.	Pabitra Nath,* Ph.D. (GU)	*Photonics*
Assistant Professors		
1.	Ng K. Francis, Ph.D. (GU)	*Particle Physics Phenomenology and Particle Cosmology*
2.	Rajib Biswas, * Ph.D. (DU)	*Fiber Optic Instrumentation, PCFs; Geophysical Instrumentation*
3.	Amit Pathak,* Ph.D. (GU^)	*Molecular Astrophysics of Polycyclic Aromatic Hydrocarbons (PAHs), Interstellar Dust (Cosmic*

		Dust), UV Astronomy
4.	Rupjyoti Gogoi,* Ph.D. (GU)	*Astrophysics*
5.	Shyamal Kumar Das,* Ph.D. (IISc)	*Material Science*
6.	Ritupan Sarmah, Ph.D. (IISc)	*Computational Material Science*
DST Inspire Faculty		
1.	Arup Jyoti Choudhury, Ph.D. (GU)	*Low Temperature Plasma Processing*

***Recognized Supervisor**

LEGENDS: *, **IITK**-Indian Institute of Technology Kanpur, **SS**-School of Sciences, **GU**-Gauhati University, **DU^-**Delhi University, **TU**-Tezpur University, **JU**-Jadavpur University West Bengal, **DU**-Dibrugarh University, **GU^**-Gorakhpur University Uttar Pradesh, **IISc**-Indian Institute of Science Bangalore, **HoD**-Head of the Department.*

5.5.3 Facilities

The Department has a rich collection of setups and instruments related to Photonics, Electronics, Condensed Matter Physics and Nanoscience at research level in addition to general laboratory instruments for postgraduate teaching in Physics. The Department has a 25 MW pulsed, NdYAG laser, high vacuum coating unit, X-band Microwave Bench, Electrochemical Workstation, LCR HiTester Meter, AFM, PPMS, SEM, XRD, Double Distilled water treatment plant, hot air oven, material developing facilities, semiconductor characterization set-up, UV-VIS spectrophotometer, Millipore water purification system, LB film deposition unit, FT-IR, spectrophotometer, vector network analyzer, spin wave instability characterization system, antenna parameter measurement facility, hydraulic press, CNC Milling Machine and other systems. The department has its own Astronomical Observatory and high end computer servers for simulation and theoretical research. 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.

5.5.4 Research Activities

- No. of papers published in the year 2016-2017 : 54
- No. of ongoing research projects: 24
- No of current Ph.D. scholars: 51

5.5.5 Selected Publications

[1] Hazarika J. and Kumar A., Structural and Optical Properties of Self Assembled polypyrrole nanotubes, J. Polym. Res., 23(5),1-8, 2016.

[2] Boruah M. J., Gogoi A. and Ahmed G. A., Laboratory simulation and modeling of size, shape distributed interstellar graphite dust analogues: A Comparative Study, Planetary and Space Science, 125, 27-36, 2016.

[3] Bezbaruah P and Das N., Collisional effects on interaction potential in complex plasma in presence of magnetic field, Physics of Plasmas, 23(4):043701, 2016.

[4] Deb P., Interface electronic structure control in a metalloprotein hybrid catalyst for efficient hydrogen evolution, Phys. Chem. Chem. Phys., 18,23220, 2016.

[5] Borah B, Haloi A and Karmakar P. K., A generalized hydro dynamic model for acoustic mode stability in viscoelastic plasma fluid, Astrophysics and Space Science, 361,165(1-11), 2016.

5.6 ACADEMIC CURRICULA

5.6.1 Integrated B. Sc.B.Ed. in Chemistry

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				**Sixth Semester**		
Course Code	**Course Title**	**Cr.**		**Course Code**	**Course Title**	**Cr.**
ED 301	Teaching Approaches and Learning Resources	3		CD 302	Physical Chemistry-IV	3
ED 302	Classroom Organization and Management	3		CD 304	Organic Chemistry-IV	3
CD 301	Physical Chemistry-III	3		CD 306	Principles and Applications of Spectroscopy	3
CD 303	Organic Chemistry-II	3		ED 303	School Education in North East India	2
CD 305	Inorganic Chemistry-II	4		ED 308	Pedagogy A: Physical Science- I	3
CD 307	Chemistry Laboratory- III	4		ED 307/ ED 309	Pedagogy B: Mathematics -I / Pedagogy B: Biological Science -I	3
-	CBCT - III	3		-	CBCT -IV	3
Seventh Semester				**Eighth Semester**		
Course Code	**Course Title**	**Cr.**		**Course Code**	**Course Title**	**Cr.**
ED 404	Initial School Experience/School Internship - I	3		CD 402	Chemistry Laboratory -V	3
ED 408	Pedagogy A: Physical Science - II	3		CD 404	Chemistry Laboratory- VI	2
ED 407/ ED 409	Pedagogy B: Mathematics -II/ Pedagogy B: Biological Science - II	3		ED 405	School Internship - II (16 weeks)	12
CD 401	Quantum Chemistry and Chemical Bonding	3		-	CBCT-VI	3
CD 403	Inorganic Chemistry -IV	3				
CD 405	Chemistry Laboratory -IV	3				

-	CBCT-V	3				

5.6.2 Integrated B.Sc.B.Ed. 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				

5.6.3 Integrated B. Sc.B.Ed. 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				
-	CBCT	3				

5.6.4 Integrated M.Sc. in Chemistry

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
MI101	Mathematics-I	3		MI102	Mathematics-II	3
ED 104	Communicative English	2		ES 102	Elementary Environmental Science	3
ED 105	Basics in Computer Applications	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 Chemistry	3		CI 512/ 513/ 514/ 515/ 516	Elective- III	3
CI 504	Analytical Techniques	3		CI 517	Project Work	9
CI 505	Laboratory Course in Physical Chemistry	6				
-	CBCT -IX	3				

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				

5.6.5 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		MI408	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 semester)	0		-	Open Elective- IV	4
-	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.

5.6.6 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				

5.6.7 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

5.6.8 M.Sc. in Chemistry

First Semester				**Second Semester**		
Course Code	**Course Title**	**Cr.**		**Course Code**	**Course Title**	**Cr.**
CH 401	Principles of Inorganic Chemistry	3		CH 408	Chemistry of Transition Elements	3
CH 402	Principles of Organic Chemistry	3		CH 409	Organic Reactions and Mechanism	3
CH 403	Chemical and Statistical Thermodynamics	3		CH 410	Chemical Dynamics and Electrochemistry	3
CH 404	Quantum Chemistry and Chemical Bonding	3		CH 411	Principles and Applications of Spectroscopy	3
CH 405	Laboratory Course in Organic Chemistry	6		CH 412	Laboratory Course in Inorganic Chemistry	6
-	CBCT-I	3		-	CBCT-II	3
Third Semester				**Fourth Semester**		
Course Code	**Course Title**	**Cr.**		**Course Code**	**Course Title**	**Cr.**
CH 501	Bio-organic Chemistry	3		CH 506/ 507/ 508	Elective - I	3
CH 502	Physical Chemistry of Surface and Condensed Systems	3		CH509/ 510/ 511	Elective - II	3
CH 503	Special Topics in Inorganic Chemistry	3		CH 512/ 513/ 514/ 515/ 516	Elective - III	3
CH 504	Analytical Techniques	3		CH 517	Project Work	9
CH 505	Laboratory Course in Physical Chemistry	6				
-	CBCT-III	3				
Elective I: Any one from the following group				**Elective I: Any one from the following group**		
Course Code	**Course Title**	**Cr.**		**Course Code**	**Course Title**	**Cr.**
CH 506	Catalysis (Physical)	3		CH 509	Polymer Chemistry (Physical)	3
CH 507	Bio-inorganic Chemistry (Inorganic)	3		CH 510	Organometallic Chemistry (Inorganic)	3
CH 508	Methods in Organic Synthesis (Organic)	3		CH 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.**
CH 512	Chemistry of Materials	3		CH 515	Environmental and Green	3

					Chemistry	
CH 513	Organic Solid States Chemistry	3		CH 516	Computational Chemistry and Numerical Analysis	3
CH 514	Biomolecular Chemistry	3				

5.6.9 M. Sc. in Environmental Science

First Semester				**Second Semester**		
Course Code	**Course Title**	**Cr.**		**Course Code**	**Course Title**	**Cr.**
ES 551	Fundamentals of Environmental Science	2		ES 556	Solid Waste Management and Technology	3
ES 552	Statistical Methods in Environmental Application	3		ES 557	Climatology and Meteorology	2
ES 553	Ecology and Ecosystem Dynamics	3		ES 558	Environmental Biology	2
ES 554	Earth Processes and Natural Hazards	3		ES 559	Environmental Physics	2
ES 555	Environmental Chemistry and Toxicology	3		ES 560	GIS-Remote Sensing and Application	2
-	Open Elective/ Elective Foundation	3		ES 561	Environmental Engineering	3
				-	Open Elective/ Elective Foundation	6
				-	Discipline Centric Elective	2
Third Semester				**Fourth Semester**		
Course Code	**Course Title**	**Cr.**		**Course Code**	**Course Title**	**Cr.**
ES 562	Analytical Methods	3		ES 550	Project	10
ES 564	Agriculture and Environmental Sustainability	2		ES 563	Environmental Impact Assessment	2
ES 565	Environmental Pollution and Management	3		ES 569	Energy and Environment	2
ES 566	Soil Science	2		-	Discipline Centric Elective	2
ES 567	Environmental Plant Physiology and Biochemistry	3				
ES 568	Hydrogeochemical Processes	2				
ES 573	Environmental Extension and Field Survey	1				
-	Open Elective/ Elective Foundation	3				
-	Discipline Centric Elective	2				
Discipline Centric Elective Courses						
Course Code	**Course Title**	**Cr.**		**Course Code**	**Course Title**	**Cr.**
ES 545	Human Population, Social Issues and the Environment	2		ES 571	Climate Change and Its Impacts	2
ES 546	Environmental Biotechnology	2		ES 572	Natural Resource and Biodiversity Conservation	2
ES 547	Agro-Forestry and Forest Management	2		ES 574	Laboratory Safety	2
ES 548	Environmental Economics	2		ES 575	Atmospheric Chemistry	2
ES 570	Environmental Laws and Policies	2				
In addition to the above courses, students are to choose a total of 12 credits of CBCT courses offered by other departments, preferably to be finished within 3rd Semester.						

5.6.10 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				

5.6.11 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				

5.6.12 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

5.6.13 M. Sc. in Nanoscience and Technology

First Semester				**Second Semester**		
Course Code	**Course Title**	**Cr.**		**Course Code**	**Course Title**	**Cr.**
NS 400	Laboratory - I	5		NS 402	Electronics	3
NS 404	Basic Polymer Science	3		NS 410	Nanostructures	3
NS 408	Condensed Matter Physics	3		NS 421	Statistical Physics	3
NS 415	Mathematical Methods	3		NS 453	Atomic and Molecular Spectroscopy	3
NS 416	Electrodynamics	3		NS 455	Seminar	2
NS 418	Quantum Mechanics - I	3		NS 498	Laboratory - II	5
-	CBCT	3		-	CBCT	3
Third Semester				**Fourth Semester**		
Course Code	**Course Title**	**Cr.**		**Course Code**	**Course Title**	**Cr.**
NS 500	Project Work - I	6		NS 558	Nanomagnetism	3
NS 501	Surface Science	3		NS 559	Nanophotonics	3
NS 552	Quantum Mechanics - II	3		NS 599	Project Work - II	12

NS 553	Biophysics and Nanobiotechnology	3				
NS 554	Computational and Modeling Techniques	4				
-	CBCT	3				

5.6.14 M.Tech. in Polymer Science and Technology

First Semester				**Second Semester**		
Course Code	**Course Title**	**Cr.**		**Course Code**	**Course Title**	**Cr.**
PT 501	Introduction to Polymer Science	3		PT 510	Processing and Fabrication of Polymers	3
PT 502	Industrial Polymers	3		PT 511	Polymer Rheology and Morphology	3
PT 503	Polymer Characterization and Analysis	3		PT 512	Rubber Science and Technology	3
PT 504	Polymer Reaction Engineering and Reactor Design	3		PT 517	Polymer Processing and Testing Laboratory	3
PT 505	Fundamentals of Chemical Engineering	3		-	Elective - II	3
PT 509	Polymer Synthesis and Analysis Laboratory	3		-	Elective - III	3
-	Elective- I	3		-	CBCT-II	3
-	CBCT-I	3				
Third Semester				**Fourth Semester**		
Course Code	**Course Title**	**Cr.**		**Course Code**	**Course Title**	**Cr.**
PT 605	Project- I	9		PT 606	Project-II	12
-	Elective- IV	3				
-	CBCT -III	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.**
PT 506	Paints and Surface Coating Technology	3		PT 513	Polymer Composites and Blends	3
PT 507	Fiber Science and Technology	3		PT 514	Conducting Polymers	3
PT 508	Production of Polymer Raw Materials	3				
Elective III: Any one from the following group				**Elective IV: Any one from the following group**		
Course Code	**Course Title**	**Cr.**		**Course Code**	**Course Title**	**Cr.**
PT 515	Polymeric Biomaterials	3		PT 601	Environmental Engineering and Polymer Waste Management	3
PT 516	Chemical Computation	3		PT 602	High Performance Polymers	3
				PT 603	Computer Aided Design	3
				PT 604	Nanomaterials and Nanocomposites	3

5.6.15 Ph. D. Programmes in Sciences

A student admitted to the Ph.D. programme shall be required to complete specified course work prior to the submission of Plan of Research as per the recommendation of the Departmental Research Committee (DRC). Currently a Ph.D. scholar is required to complete courses of minimum 16 credits which also include 4 credits of the Research methodology on the areas of research

and/or areas related to that of research to be carried out by the students (1 credit generally consists of one hour of lecture/ tutorials or two hours of practical in a week). As a step initiated by the University towards implementation of the Choice Based Credit Transfer (CBCT) system, 4 credits out of the stipulated credit requirement should be from another Department. The course work should be completed within the first two semesters. Employed part-time candidates shall be given the option of carrying out the course work during any two of the first three semesters.

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6. CENTRES

6.1 CENTRE FOR OPEN AND DISTANCE LEARNING (CODL)

The Centre for Open and Distance Learning (CODL) was established in 2011 with the aim of disseminating knowledge and imparting quality education through open and distance learning mode. The Centre offers various post- graduate, undergraduate, diploma and certificate programmes in emerging areas of science, 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.

6.1.1 Faculty and Areas of interest

Director		
1.	Debabrata Das,* Ph.D. (RGU)	*Financial Management, Financial Markets and Development Finance*
Assistant Professor		
1.	Sanjib Sahoo,* Ph.D. (T.U)	Indian writing in English, Eco criticism
Programme Coordinators		**Programmes**
1.	Dr. Uttam Pegu	M.A- Mass Communication
2.	Dr. Amiya Kumar Das	P.G Diploma in Governance and Development
3.	Dr Suryakant Tripathi	P.G Diploma in Functional Hindi
4.	Dr. Anjan Bhuyan	P.G Diploma in Retail Management P.G Diploma in Human Resource Management
5.	Dr. Runumi Das	P.G Diploma Investment Management
6.	Dr. Dipak Nath Dr. (Ms.) Nirmali Gogoi	P.G Diploma in Environmental Management
7.	Dr. S. Dutta Dr. S. Sen	M.A/ M. Sc in Mathematics
8.	Dr. S. Mahapatra	PG Diploma in Renewable Energy & Energy Management (REEM)

*** Recognized Supervisor**

LEGENDS: RGU-Rajiv Gandhi University Arunachal Pradesh, TU- Tezpur University

6.1.2 Study Centres of CODL

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

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

(C) (C) Dibrugarh
DHSK College, Dibruagarh—786001
Contact: 99544-81785

6.1.3 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.

6.1.4 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.

6.1.5 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.

6.1.6 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 in the official website http://www.tezu.ernet.in./tu_codl

(B) **Admission procedure:** The applications for admission in prescribed forms only, duly filled in and completed in all respects, must be submitted on or before the last date specified for the purpose.

(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.

6.1.7 Degree and Diploma Programmes Offered By CODL

Sl. No.	Programme and code	Eligibility	Department and School	Fees in Rupees	Duration (Number of semesters)	
					Min	Max
1	M.A. in Mass Communication	Bachelor's degree in any discipline	Mass Communication and Journalism (School of Humanities and Social Sciences)	12,500/-	4	8
2	M. Sc in Mathematics	Bachelor's degree with Mathematics major/ honours 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
3	P.G Diploma in Governance and Development	Bachelor's degree in any discipline	Sociology (School of Humanities and Social Sciences)	6,800/-	2	4
4	P.G Diploma in Functional Hindi	Bachelor's degree in any discipline	Hindi (School of Humanities and Social Sciences)	6,800/-	2	4
5	P.G Diploma in Retail Management	Bachelor's degree in any discipline	Business Administration (School of Management Sciences)	7,500/-	2	4
6	P.G Diploma Investment Management	Bachelor's degree in any discipline	Business Administration (School of Management Sciences)	7,500/-	2	4
7	P.G Diploma in Human Resource Management	Bachelor's degree in any discipline	Business Administration (School ofManagement Sciences)	7,500/-	2	4

CODL is planning to start M.A. programmes in Assamese, English, Sociology, Education and Hindi in near future.
All the Degrees and Diplomas programmes offered by CODl are permitted and recognized by University Grants Commission, New Delhi.

6.2 TEACHING AND LEARNING CENTRE

In line with the National Policy on Education (NPE) 1996, the Pandit Madan Mohan Malviya National Mission on Teachers and Teaching (PMMMNMTT) made a focused reference to the crucial dependence of quality ensured delivery of education. In order to meet the teaching and learning needs of North East India in specific and India in general, Tezpur University set up a distinct teaching learning centre in its campus with the financial support of MHRD under the PMMMNMTT Scheme. Teaching learning centre, Tezpur University, Tezpur Assam was formally inaugurated on January 28, 2016. The centre envisions developing and promoting responsive and relevant teaching-learning system for higher education communities and contributing to excellance in teaching and learning as an innovative and resourceful centre with committed and professional staff through reflective research-based practice and the optimal use of technology.

6.2.1 Faculty and Areas of interest

Professor		
Prasanta Kumar Das,* Ph.D. (GU) – Dean-HSS		*American Literature, Indian Writing in English*
Assistant Professor		
1.	Swapnarani Bora Ph.D. (DU)	Language and Folklore, Sociolinguistics
2.	Iqbal Hussain Ahmed, M.Phil. (DU^)	Formal Logic, Moral Philosophy

*** Recognized Supervisor**

LEGENDS: GU-Guwahati University, HSS- Humanities and Social Sciences, DU- Dibrugarh University, DU^- Delhi University.

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ANNEXURE I: ELIGIBILITY CRITERIA FOR ADMISSION

I.1 School of Engineering

I.1.1 Eligibility Criteria of B.Tech./B.Voc. Programmes

Programme	Specialization	Department	Tentative Intake		Eligibility Criteria
			Normal	SSS§	
B. Tech.†	Civil Engineering	Civil Engineering	50	4	(1) Language, (2) Physics, (3) Mathematics (4) Any one of (Chemistry, Biology, Biotech, Technical vocational subjects), (5) Any other subject with at least 45% (40% in case of candidate belonging to reserved category) marks in above subjects taken together in 10+2 Examination
	Computer Science & Engineering	Computer Science & Engineering	52	4	
	Electronics and Communication Engineering	Electronics and Communication Engineering	52	4	
	Electrical Engineering	Electrical Engineering	30	-	
	Food Engineering & Technology	Food Engineering & Technology	30	4	
	Mechanical Engineering	Mechanical Engineering	52	4	
B.Voc	Renewable Energy Management	Energy	50	-	10+2 Examination (Science) with 50% marks or equivalent grade in aggregate or NSQF level 4 certificate
	Food Processing	Food Engineering & Technology	50	-	

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† Admission to all the B. Tech. programmes shall be made through the **JEE Main 2017** conducted by CBSE.

I.1.2 Eligibility Criteria of M.Tech./M.C.A. Programmes

Programme	Specialization	Department	Tentative Intake		Eligibility Criteria
			Normal	SSS§	
M. Tech.	Information Technology	Computer Science & Engineering	GATE 18 TUEE 10*	-	B.E. / B.Tech. degree in any discipline or MCA or its equivalent or M.Sc. in Computer Science / IT / Electronics / Mathematics / Statistics / Physics with a minimum of 50% marks in aggregate
	Electronics Design and Technology	Electronics and Communication Engineering	GATE 18 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
	Bioelectronics	Electronics and Communication Engineering	GATE 12 TUEE 3*	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
	Energy Technology	Energy	GATE 18 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
	Food Engineering and Technology	Food Engineering & Technology	GATE 15** TUEE 03	-	i) B.E. /B. Tech. degree in Food Engg./ Food Process Engg./ Food Technology/ Agricultural Engg./ Mechanical Engg./ Chemical Engg/ Biotechnology or related fields with a minimum of 60% marks in aggregate. (The B. Tech./ B.E. programme completed by the candidate should satisfy the AICTE requirements). ii)2 years M.Sc. in Food Technology/Food Processing Technology with a minimum of 60% marks in aggregate (50% in Mathematics in 10+2 level is compulsory. However, it is exempted if the candidate has passed mathematics in programme(s) prescribed as qualification.)
	Mechanical Engineering	Mechanical Engineering	GATE 15 TUEE 03	-	BE/B.Tech. or equivalent Bachelor's degree in Mechanical, Production, Aerospace, Aeronautical, Metallurgy, Civil, or in any other relevant Engineering discipline.
M.C.A.		Computer Science & Engineering	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. Passed in Mathematics at 10+2 Examination

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** Any seat remaining vacant after accommodating candidates with valid GATE score will be filled based on TUEE 2017 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 marks (30% weightage)

I.1.3 Eligibility Criteria of Ph.D. Programmes

Programme	Department	Eligibility Criteria
Ph.D.	Civil Engineering	M.E./M.Tech. /M.Sc.(Engg) in Civil Engg. or allied areas or M.Sc. in relevant discipline with minimum 70% marks in aggregate or equivalent CGPA. B.E. / B.Tech with 80% marks in aggregate or equivalent CGPA with a valid GATE Score .
	Computer Science & Engineering	M.Tech. in Computer Science/ I.T./ Electronics. M.Sc. in Computer Science/ I.T. MCA B.E./B.Tech. with 80% marks in aggregate or equivalent CGPA with valid GATE Score.
	Electronics and Communication Engineering	M.E. / M.Tech. / M.Sc. Engg. / M.S. in Electronics/ Communication/ Electronics Design/ Electrical/ Instrumentation/ Control/ Microwave/ Biomedical/Bioelectronics/ Bio-Technology/ Computer Science/ Information Technology. M.Sc. in Electronics/ Physics/ Applied Mathematics. MCA with Physics, Chemistry and Mathematics in Bachelor degree, MBBS with MD/ MS degree. B.E. / B.Tech. with 80% marks in aggregate or equivalent CGPA with valid GATE score.
	Energy	M.Sc. / M.E. / M.Tech. degree in Energy Technology/ Energy Management/Energy related Engineering and Technology/ Physics/ Chemistry/Agriculture Allied subjects.
	Food Engineering & Technology	M.Sc. / M.Tech. / M.E. in Food Technology/Food Processing Technology/ Food Science and Technology / Food and Nutrition / Microbiology / Food Microbiology / Biochemistry / Chemistry / Biotechnology/ Food Engineering/ Applied Microbiology/ Dairy Engineering/ Food Biotechnology Engineering. B.E. / B.Tech. with an aggregate of at least 80% marks or equivalent CGPA.
	Mechanical Engineering	M.E. / M.Tech. / M.Sc. (Engg.) in Mechanical Engg. or allied areas. B.E. / B.Tech with 80% marks in aggregate or equivalent CGPA with a valid GATE Score.

I.1.4 Durations of the Programmes

Programme	Duration (in number of semesters)	
	Minimum	Maximum
B.Tech.	8	12
B.Voc.	6	6
M.Tech.	4	8
M.C.A.	6	10
Ph.D.	Full time: 6 semesters, Full time (with M.Phil./ M.Tech./ Tezpur University faculty members: 4 semesters, others: 6 semesters	Full time: 8 semesters, Full time (with M.Phil./ M.Tech./Tezpur University faculty members: 8 semesters, others: 10 semesters

I.2 School of Humanities and Social Sciences

I.2.1 Eligibility Criteria of Certificate Programmes

Programme	Specialization	Department /Centre	Tentative Intake		Eligibility Criteria
			Normal	SSS	
Certificate Course	Chinese	English and Foreign Languages	39	0	10+2 with 45% of marks in aggregate.
	Technical writing¥	Centre for Inclusive Development			

¥ Admission is through concerned Department

I.2.2 Eligibility Criteria of Integrated B.A.B.Ed./Integrated M.A. Programmes

Programme	Specialization	Department	Tentative Intake		Eligibility Criteria
			Normal	SSS[§]	
Integrated B.A. B.Ed	Major in English	English and Foreign Languages	10	2	First Division in the 10+2 Examinations
Integrated M.A.	English	English and Foreign Languages	20	2	First Division in the 10+2 Examinations

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I.2.3 Eligibility Criteria of PG Diploma Programmes

Programme	Specialization	Department /Centre	Tentative Intake		Eligibility Criteria
			Normal	SSS[§]	
P.G. Diploma	Child Rights and Governance	Centre for Inclusive Development	20	1	Bachelor's Degree in any discipline
	Women's Studies	Chandraprabha Saikiani Centre for Women's Studies	20	-	
	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.

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I.2.4 Eligibility Criteria of B.Ed./M.A. Programmes

Programme	Specialization	Department /Centre	Tentative Intake		Eligibility Criteria
			Normal	SSS[§]	
B.Ed.	Education	Education	50	----	Minimum 55% marks in B.A./B.Sc./B.Tech./B.E.
M.A.	Cultural Studies	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
	Education	Education	30	5	Bachelor's Degree with at least 45% marks
	English	English and Foreign Languages	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
	Linguistics and Endangered Languages	English and Foreign Languages	20	0	Bachelor's degree in any discipline with 45% marks in Major or 50% marks without Major.
	Linguistics and Language Technology	English and Foreign Languages	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.
	Hindi	Hindi	25	2	Bachelor's Degree with Major/ Honours in Hindi from a recognised University or Bachelor's degree with Hindi as an elective subject having at least 50% of marks in aggregate.
	Mass Communication and Journalism	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.
	Communication for Development	Mass Communication and Journalism	12	2	Bachelor's Degree in any discipline with at least 55% marks with or without Major/Honours.
	Social Work	Social Work	15	0	Graduate in any discipline with 45% marks in Major.
	Sociology	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.

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I.2.5 Eligibility Criteria of Ph.D Programmes

Programme	Specialization	Department	Eligibility Criteria
Ph.D. [ϕ]	Education	Education	Post Graduate in Education or in any allied discipline/ subjects with 55% marks.
	English Language teaching/Linguistics/ Literature	English and Foreign Languages	M.A. in English (specialization may be in Literature, English Language Teaching or Linguistics); M.A. in Linguistics
	Hindi	Hindi	M.A. in Hindi
	Mass Communication and Journalism	Mass Communication and Journalism	M.A. in Mass Communication, Mass Communication & Journalism/Communication. Master of mass Communication (MMC). Master of Journalism & Mass Communication (MJMC). Master of Science in Communication (M.S. Communication). M.Sc. Communication. Master of Journalism.
	Sociology	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.

I.2.6 Durations of the Programmes

Programme	Duration (in number of semesters)	
	Minimum	Maximum
Certificate Course	2	4
Integrated B.A. B.Ed	8	12
Integrated M.A.	10	14
P.G. Diploma	2	4
B.Ed.	4	8
M.A.	4	8
Ph.D.	Full time: 6 semesters, Full time (with M.Phil./ M.Tech./ Tezpur University faculty members): 4 semesters, others: 6 semesters.	Full time: 8 semesters, Full time (with M.Phil./ M.Tech./Tezpur University faculty members): 8 semesters, others: 10 semesters.

I.3 School of Management Sciences

Programme	Department	Duration (Semesters)		Tentative Intake		Eligibility Criteria
		Min.	Max.	Normal	SSS§	
Integrated M. Com.	Commerce	10	14	30	2	Minimum 60% aggregate marks in 10+2 Examination
M. Com.	Commerce	4	8	11	2	B. Com. with minimum of 50% marks in major/honours. Mathematics at degree level is desirable.
M.B.A.*	Business Administration	4	8	46	4	Bachelor's Degree in any discipline with a minimum of 50% marks in major/honours subject or in aggregate. (Admission Process of 2017 is already over)
M.T.T.M.	Business Administration	4	8	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
Ph. D.	Business Administration	Full time: 6 semesters, Full time (with M.Phil./ M.Tech./Tezpur University faculty members: 4 semesters, others: 6 semesters	Full time: 8 semesters, Full time (with M.Phil./ M.Tech./Tezpur University faculty members: 8 semesters, others: 10 semesters			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

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*Admission to the M.B.A. programme shall be made on the basis of CAT 2016 and MAT (December 2016) score.

I.4 School of Sciences

I.4.1 Eligibility Criteria of Integrated B.Sc.B.Ed./Integrated M.Sc. Programmes

Programme	Specialization	Department	Tentative Intake		Eligibility Criteria
			Normal	SSS§	
Integrated B.Sc. B.Ed	Chemistry	Chemical Sciences	10	1	First division in 10+2 Examination (Science)
	Mathematics	Mathematical Sciences	10	1	
	Physics	Physics	10	1	
Integrated M.Sc.	Chemistry	Chemical Sciences	20	1	Minimum 60% aggregate marks in Physics, Chemistry and Mathematics at 10+2 and pass mark in English.
	Mathematics	Mathematical Sciences	20	1	Minimum 60% aggregate marks in Mathematics, Physics, Chemistry/Statistics in 10+2 Examination and pass mark in English.
	Bioscience & Informatics	Molecular Biology and Biotechnology	20	1	Minimum 60% aggregate marks in Biology, Chemistry, Physics and/or Mathematics subjects in 10+2 Examination and pass mark in English.
	Physics	Physics	20	1	Minimum 60% aggregate marks in Mathematics, Physics, Chemistry in 10+2 Examination and pass mark in English

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I.4.2 Eligibility Criteria of M.Sc./M.Tech. Programmes

Programme	Specialization	Department	Tentative Intake		Eligibility Criteria
			Normal	SSS§	
M.Sc.	Chemistry	Chemical Sciences	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
	Environmental Science	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.
	Mathematics	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.
	Molecular Biology and Biotechnology	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.
	Physics	Physics	20	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
	Nanoscience and Technology	Physics	20	1	(i) Bachelor's degree with 50% marks in Physics as major/honours subjects and Chemistry, Biology/Mathematics as allied subjects Or, (ii) Bachelor's Degree with 50% marks in Chemistry as major/honours subject with Physics, Biology/ Mathematics as allied subjects or, (iii) Bachelor's with 50% marks in Biology as major/honours subject with Physics, Chemistry/ Mathematics as allied subjects. Candidates having no major/honours must have minimum 55% marks in aggregate
M.Tech.	Polymer Science and Technology	Chemical Sciences	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.

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* 10 seats will be filled up through TUEE 2017 and 20 seats will be filled up through "All India Combined Entrance Test" conducted by the Jawaharlal Nehru

University, New Delhi under the sponsorship of the Department of Biotechnology, Government of India, New Delhi (eligibility as decided by DBT, Government of India from time to time).
Candidates admitted to M.Tech. in Polymer Science and Technology with valid GATE Scores are entitled to get scholarships from AICTE.

I.4.3 Eligibility Criteria of Ph.D. Programmes

Programme	Department	Eligibility Criteria
Ph.D.	Chemical Sciences	M.Sc. in all branches of Chemical Science/ Physics/Nanoscience/ Material Science/ Biotechnology/ Biochemistry/ Bioinformatics/ Environmental Science. M.E./M.Tech. in allied subjects (Chemical Engineering/ Polymer Technology/ Material Sciences/ Environmental Engineering etc.); B.Tech. in Chemical Engineering/ Polymer Technology/ Material Sciences/ Environmental Engineering, etc. with 80% marks in aggregate or equivalent grade.
	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.
	Mathematical Sciences	M.A. / M.Sc. in Mathematics/ Statistics/ Physics/ Computational Seismology/ Economics with requisite background in Mathematics.
	Molecular Biology and Biotechnology	Masters in any branches of Life Sciences/ Physical Sciences/ Chemical Sciences/ Mathematical Sciences/ Agricultural Sciences / Veterinary or Engineering Sciences / Medical Sciences or in any allied field. B. Tech./ B. E. degree with 80% marks in CGPA (with GATE score > 90.00 percentile) in Chemical Engineering/ Chemical Sciences/ Bioinformatics or any allied field. MBBS or BVSc. degree with at least 60% marks or equivalent CGPA. Apart from the above, candidates having consistently good academic record will be preferred.
	Physics	M.Sc. in Physics/ Electronics/ Geophysics/ Material Science/ Applied Mathematics/ Nanoscience and Technology/ Biotechnology/ Environmental Science and Chemical Science. M.Phil., M.Tech. in Solid State Material/ Material Science/ Electronics/Energy/ Nanoscience and Technology/ Biotechnology/ Environmental Science and Chemical Sciences. B.Tech. in Engineering Physics with 80% marks in aggregate or equivalent CGPA.

I.4.4 Duration of the Programmes

Programme	Duration (in number of semesters)	
	Minimum	**Maximum**
Integrated B.Sc. B.Ed	8	12
Integrated M.Sc.	10	14
M.Sc.	4	8
M.Tech.	4	8
Ph.D.	Full time: 6 semesters, Full time (with M.Phil./ M.Tech./ Tezpur University faculty members): 4 semesters, others: 6 semesters.	Full time: 8 semesters, Full time (with M.Phil./ M.Tech./Tezpur University faculty members): 8 semesters, others: 10 semesters.

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ANNEXURE II: FEE STRUCTURE

II.A Semester-wise Fee (Normal) for the students to be admitted in 2017

Programmes	1st Sem	2nd Sem	3rd Sem	4th Sem	5th Sem	6th Sem	7th Sem	8th Sem	9th Sem	10th Sem	Refund-able
Integrated M.Com	18303/-	10003/-	10003/-	10003/-	10003/-	10003/-	10003/-	10003/-	10003/-	10003/-	6500/-
Integrated M.A.	18303/-	10003/-	10003/-	10003/-	10003/-	10003/-	10003/-	10003/-	10003/-	10003/-	6500/-
Integrated M.Sc.	20803/-	12503/-	12503/-	12503/-	12503/-	12503/-	12503/-	12503/-	12503/-	12503/-	6500/-
Integrated B.A.B.Ed.	18303/-	10003/-	10003/-	10003/-	10003/-	10003/-	10003/-	10003/-	-	-	6500/-
Integrated B.Sc.B.Ed.	20803/-	12503/-	12503/-	12503/-	12503/-	12503/-	12503/-	12503/-	-	-	6500/-
B.Tech.	32303/-	24003/-	24003/-	24003/-	24003/-	24003/-	24003/-	24003/-			6500/-
B. Voc.	20803/-	12503/-	12503/-	12503/-	12503/-	12503/-	-	-	-	-	6500/-
M.C.A	23803/-	15503/-	15503/-	15503/-	15503/-	15503/-	-	-	-	-	6500/-
Two Year B.Ed.	19803/-	11503/-	11503/-	11503/-	-	-	-	-	-	-	6500/-
M.A.	18303/-	10003/-	10003/-	10003/-	-	-	-	-	-	-	6500/-
M. Com.	18303/-	10003/-	10003/-	10003/-	-	-	-	-	-	-	6500/-
M. Sc.	19003/-	10703/-	10703/-	10703/-	-	-	-	-	-	-	6500/-
M. Tech.	27803/-	19503/-	19503/-	19503/-	-	-	-	-	-	-	6500/-
M.A. in MCJ	28803/-	19503/-	19503/-	19503/-	-	-	-	-	-	-	6500/-
Master of Tourism and Travel Management	22803/-	14503/-	14503/-	14503/-	-	-	-	-	-	-	6500/-
Certificate in Chinese	16603/-	8803/-	-	-	-	-	-	-	-	-	6500/-
P.G. Diploma in Translation (Hindi)	16803/-	9003/-	-	-	-	-	-	-	-	-	6500/-
P. G. Diploma in Women's Studies	22803/-	14503/-	-	-	-	-	-	-	-	-	6500/-
P. G. Diploma in Child Rights & Governance	22803/-	14503/-	-	-	-	-	-	-	-	-	6500/-

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

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

II.B Semester-wise Fee (under SSS) for the students to be admitted in 2017

Programmes	1st Sem	2nd Sem	3rd Sem	4th Sem	5th Sem	6th Sem	7th Sem	8th Sem	9th Sem	10th Sem	Refundable
Integrated M. Com.	32753/-	23853/-	23853/-	23853/-	23853/-	23853/-	23853/-	23853/-	23853/-	23853/-	6500/-
Integrated M.A.	32753/-	23853/-	23853/-	23853/-	23853/-	23853/-	23853/-	23853/-	23853/-	23853/-	6500/-
Integrated M.Sc.	46253/-	37353/-	37353/-	37353/-	37353/-	37353/-	37353/-	37353/-	37353/-	37353/-	6500/-
Integrated B.A.B.Ed.	32753/-	23853/-	23853/-	23853/-	23853/-	23853/-	23853/-	23853/-	-	-	6500/-
Integrated B.Sc.B.Ed.	46753/-	37353/-	37353/-	37353/-	37353/-	37353/-	37353/-	37353/-	-	-	6500/-
B.Tech.	82503/-	73603/-	73603/-	73603/-	73603/-	73603/-	73603/-	73603/-	-	-	6500/-
B. Voc.	46253/-	37353/-	37353/-	37353/-	37353/-	37353/-	-	-	-	-	6500/-
M. C.A	39253/-	30353/-	30353/-	30353/-	30353/-	30353/-	-	-	-	-	6500/-
M. A.	32753/-	23853/-	23853/-	23853/-	-	-	-	-	-	-	6500/-
M. Com.	32753/-	23853/-	23853/-	23853/-	-	-	-	-	-	-	6500/-
M. Sc.	35253/-	26353/-	26353/-	26353/-	-	-	-	-	-	-	6500/-
M. Tech.	39253/-	30353/-	30353/-	30353/-					-	-	6500/-
M. A. in MCJ	59003/-	49103/-	49103/-	49103/-	-	-	-	-	-	-	6500/-
Master of Tourism and Travel Management	37753/-	28853/-	28853/-	28853/-	-	-	-	-	-	-	6500/-
Certificate in Chinese	26753/-	18353/-	-	-	-	-	-	-	-	-	6500/-
P. G. Diploma in Women's Studies	37753/-	28853/-	-	-	-	-	-	-	-	-	6500/-
P. G. Diploma in Child Rights and Governance	37753/-	28853/-	-	-	-	-	-	-	-	-	6500/-

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

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

II.C Fee Structure for Ph.D. Programmes

Particular Fee	Mode	Ph.D. Full time	Ph.D. (Part Time/Spon.)
Admission	Once on admission	500/-	500/-
Registration	Once on admission	150/-	150/-
Identity card	Once on admission	50/-	50/-
Convocation	Once on admission	500/-	500/-
Provisional Certificate	Once on admission	100/-	100/-
Alumni Association	Once on admission	500/-	500/-
Caution Deposit (Library and Laboratory)	Once on admission	2000/-	2000/-
Hostel Caution Deposit	Once on admission	3000/-	3000/-
Hostel Mess Advance	Once on admission in case of Hostel boarder	1500/-	1500/-
Hostel admission/re-admission (Single seater for Ph.D. students)	Per semester in case of Hostel boarder	3000/-	3000/-
Enrollment	Per semester *(w.e.f. 2nd sem. Onward)*	500/-	500/-
Tuition	Per semester	1500/-	2000/-
Library	Per semester	350/-	350/-
Students' Activity	Per semester	500/-	500/-
Medical	Per Semester	250/-	250/-
Transport	Per semester	1000/-	1000/-
Laboratory (including computer usage)	Per semester	1000/-	1000/-
Research Fee	Per semester	3000/-	4000/-
Infrastructure and Amenity	Per semester	1000/-	1000/-
Fan, Electricity and Water charge	Per semester	300/-	300/-
Students' Welfare Fund	Per semester	150/-	150/-
Development Fund	Per semester	1500/-	1500/-
Thesis Examination Fee	At the time of submission of thesis	5000/-	5000/-
Consumable Charge *(Additional fee for the students of the Depts. of Chem. Sc., MBBT, Physics, Environmental. Sc. and FET)*	Per semester	2000/-	2000/-
** Health Insurance	Per annum *(Students above 35 yrs. of age are not covered in this scheme)*	406/-	406/-

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

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

ANNEXURE III: CONTACT DETAILS

For any query related to the admission to an Academic Programme in 2017, the concern Department/Centre may be contacted on the following contact number/E-mail ID:

Department/Office	Office Number (Code-03712)*	Mobile Number** (HoD)	E-mail ID
Business Administration	275000	94353-80862	hod_ba@tezu.ernet.in
Centre for Inclusive Development	273252	99544-49475	rkdoley@tezu.ernet.in
Centre for Open and Distance Learning	275350		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	99544-49460	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	94354-90582	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
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	99544-72151	hod_mbbt@tezu.ernet.in
Physics	275550	94350-14377	hod_phy@tezu.ernet.in
Social Work	275830	94351-85424	hod_sw@tezu.ernet.in
Sociology	275800	94351-44482	hod_soc@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.***

ANNEXURE IV
Prescribed Format of OBC(NCL) Certificate

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

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

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

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

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

Seal

NOTE :

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

ANNEXURE V
Prescribed Format of PRC

Photo

Seal of the issuing office

GOVT. OF ASSAM

OFFICE OF THE DEPUTY COMMISSIONER

Date:…… ….

Ref Petition No. ……...

PERMANENT RESIDENCE CERTIFICATE

Certified

……

son/daughter of ……..……..and

……..……of Village/Path/Street

…….…… under

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

is the permanent resident of ……..district in the state of Assam

(India).

Seal

Deputy Commissioner

ANNEXURE VI
Prescribed Format of 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.

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

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

Date: Signature_____

Name_____

Place: Designation_____

Seal of the Sponsoring authority / employer

Note: *Part- time candidate will have to be relieved from his/her duties for the completion of the course work and also additional period as desired by the University.*

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

2. Recommended / Not Recommended
Signature: ……
Name: ……
Chairperson, Selection Committee

Head, Department of ……..
Date……..