



PROSPECTUS



SCHOOL OF ENGINEERING TECHNOLOGY
NAGALAND UNIVERSITY
(Central University)



SCHOOL OF ENGINEERING TECHNOLOGY

NAGALAND UNIVERSITY

DC Court Junction, Dimapur : Nagaland

www.nagalanduniversity.ac.in

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MESSAGE FROM VICE CHANCELLOR



Nagaland University is a Central University established on 6th September 1994 by Act of the Parliament No. 35 of 1989. The University has 5 School of studies, viz. School of Sciences, School of Social Sciences, School of Agricultural Sciences & Rural Development, School of Humanities & Education and School of Engineering & Technology. The University has its Headquarters at Lumami in Zunheboto Distirct, Nagaland while its campuses are spread at three different locations in Kohima and Dimapur districts.

The School of Engineering & Technology which is located in the commercial hub of the state offers B.Tech. degree programmes in five streams of Engineering & Technology, viz. Information Technology, Computer Science & Engineering, Electronics & Communication, Biotechnology and Agricultural Engineering Technology. I am immensely pleased to warmly welcome all students aspiring to pursue Engineering & Technology programmes in Nagaland University.

Engineering and Technology has lot of relevance in today's world. The two are very closely linked and play a huge part in technological advances including computers, internet, agriculture and more. Engineering and Technology bring speed, efficiency, agility, mobility, remote connectivity, automation, communication, storage and sharing in all spheres of human lives. The global outbreak of COVID-19 recently has brought to fore the role of new-age technologies in fighting the pandemic and dealing with the situation.

The School of Engineering & Technology, Dimapur has a qualified team of faculty members dedicated to train and sharpen the innovative skills of its students in meeting the requirements of the modern world which is hugely dependent on technology. The Dean of the School along with his administrative set up provides all necessary support and facilitates the students in their academic pursuit. Despite Dimapur being a temporary campus, the School has adequate infrastructure including modern classrooms, library, computer lab, practical and research laboratories with modern equipment, separate hostels for girls and boys, etc. I am happy to say that many students passing out from the School of Engineering & Technology, get excellent placements within and outside the country.

I extend a warm and hearty welcome to all the dear students who foresee a bright academic career in Engineering & Technology under Nagaland University.

Sandesh Lal
(PARDESHI LAL)

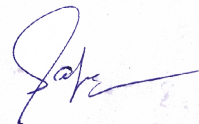
MESSAGE FROM THE DESK OF DEAN



We are immensely pleased to welcome you to join the School of Engineering and Technology, Nagaland University. The admission committee of the school of Engineering and Technology would be happy to welcome you and is ready to admit in five (5) departments for the degree program. The prospectus provides brief introduction of the school along with the school regulations, academic program, the course structures etc. of all the five different departments and the common pool course. The school emphasis on academic first and overall personality development activities and various co-curricular activities organizes throughout the year.

Our teachers are dedicated, knowledgeable, hard working and student's friendly in dissemination of knowledge for making them not only for degree but in excellent professionals as since the time of its inception the school is committed towards the pursuit of excellence. Our students are doing well in their endeavour.

I wish you a comfortable stay for your study.

A handwritten signature in blue ink, appearing to read 'Sapu Changkija', with a long horizontal flourish extending to the right.

(SAPU CHANGKIJA)
DEAN, SET
NAGALAND UNIVERSITY

SET OFFICIALS AND IN-CHARGES

| | |
|---|-----------------------------|
| Dean | PROF. SAPU CHANGKIJA |
| Assistant Registrar | MR. KAHOSHE SUMI |
| I/C Academic & Exams | MR. SHANCHAMO YANTHAN |
| I/C Student Welfare | MR. AKANGJUNGSHI LONGKUMER |
| I/C Dept. of Agricultural Engineering and Technology | DR. PRAMOD CH. DIHINGIA |
| I/C Dept. of Biotechnology | DR. IMLITOSHI JAMIR |
| I/C Dept. of Computer Science and Engineering | MR. AKANGJUNGSHI LONGKUMER |
| I/C Dept. of Electronics and Communication Engineering | MRS. BENDANGCHILA LONGKUMER |
| Warden, Girl's Hostel | MRS. BENDANGCHILA LONGKUMER |
| I/C Dept. of Information Technology | MR. SOURAV HAZARIKA |
| Training & Placement | MR. SOURAV HAZARIKA |
| I/C Common Pool | MR. RAMESH SINGH |
| Warden Boys's Hostel | DR. CHITRASEN LAIRENJAM |
| System Administrator | MR. ANTHONY VISA |
| Library Professional Assistant | MR. JEVITO SHOHE |
| I/C Sports & Game | MR. SUDIPTA PATOWARY |

1. THE UNIVERSITY

The Nagaland University is a Central University established by an act of parliament in 1989. It came into being on 6th September, 1994. The objective of the University is to disseminate knowledge by providing infrastructural and research facilities in such branches of learning as in Humanities, Natural & Physical Science, Social Science, Agricultural science, Engineering & Technology and Management. The University has departments located in its campuses in Lumami, Kohima, Medziphema and Dimapur.

2. THE SCHOOL

School of Engineering & Technology was inaugurated on 29th October, 2007 by the then Governor of Nagaland (Chief Guest) His Excellency Shri K. Sankaranarayanan and the then Hon'ble Chief Minister of Nagaland (Guest of Honor) Shri Neiphiu Rio. It is the first institution of Engineering in the State of Nagaland with state-of-the-art infrastructure. The academic building is located at D.C. Court Junction, Dimapur. The School is housed in a single four storied building with a carpet area of 35500 sq.ft. The Administrative Block is situated at Landmark Colony, Dimapur which is a walking distance from the Academic Complex.

THE SCHOOL OFFERS BACHELOR OF TECHNOLOGY DEGREE IN THE FOLLOWING UNDERGRADUATE PROGRAMS

- Agricultural Engineering and Technology
- Biotechnology
- Computer Science & Engineering
- Electronics & Communication Engineering
- Information Technology

The Campus is well connected by train, air service as well as road transportation. The Campus is networked with all the other campuses of Nagaland University. The School (University) has a Residential Complex which houses staffs and students, has sports and recreational facility and a furnished Guest House. Hostel facility is provided for both boys and girls with regular bus service.

3. INFRASTRUCTURE AND FACILITIES

3.1 STUDENTS AMENTIES AND ACTIVITIES

3.1.1 HOSTEL

The School provides limited Hostel facilities for the students. There are three boys and three girl's hostels accommodating them on a twin-sharing basis. All hostellers have to abide by the rules and regulations of the hostel.

3.1.2 SCHOOL MAGAZINE

The School publishes School magazine annually to encourage creativity of the students.

3.1.3 CAREER COUNSELLING AND PLACEMENT

The career counselling and placement cell guide the students regarding their future academic and employment career. Training and Placement in-charge updates the students regarding any placement activities from time to time.

3.1.4 GAMES AND SPORTS

Facilities like Table Tennis, Carom, Cricket, Chess games and Gym are available to the students residing in the Hostel.

3.1.5 STUDENT'S ACTIVITIES

The student organizes various activities from time to time in the campus.

3.1.6 INTERNET FACILITY

The Academic Complex is connected to the internet with 100 mbps broadband connection from NKN (National Knowledge Network)

3.1.7 LIBRARY

The Library has collection of latest Textbooks, Reference books, Journals on different streams of Science, Engineering and Technology. The Library has a study room where the students can interact with each other. In addition to this, the University has e-library (INFLIBNET programme already accessible) which provides access to numerous books, National and International Journals on-line.

4. ACADEMIC PROGRAMMES

The School offers 4 years (Eight semesters) academic programmes approved by AICTE/University leading to B.Tech. degrees on successful Completion of the course. The School adopts a teaching pattern of course credit system in semesters. One academic year is divided into two semesters comprising approximately 20 -weeks per semester. Major emphasis is laid on practical & industrial training.

5. ELIGIBILITY CRITERIA FOR ADMISSION

5.1 FRESH ENTRY (AFTER 10+2)

The candidates seeking admission to any Discipline of Technology should secure in aggregate the minimum of 50% marks for General Category and 45% marks in case of SC/ST Category. Students should have passed Physics, Chemistry and Mathematics in their 10+2 Exam. Students opting for Biotechnology programme should have passed Physics, Chemistry Mathematics and Biology in their 10+2 Exam.

5.2 LATERAL ENTRY (AFTER DIPLOMA/B.SC)

The candidates seeking admission through lateral entry to any Discipline of Technology should secure in aggregate the minimum of 50% marks for General Category and 45% marks in case of SC/ST Category along with the criteria give below.

1. Passed diploma examination from an AICTE approved institution; with at least 50% marks (45% in case of candidates belonging to reserved category) in appropriate branch of Engineering/ Technology.
2. Passed B.Sc. degree from recognized university as defined by UGC, with at least 50% marks (45% in case of candidates belonging to reserved category) and passed XII standard with mathematics as a subject.
3. Provided that in case of students belonging to B.Sc. stream shall clear the subjects of Engineering graphics/ Engineering Drawing and Engineering Mechanics of the first year engineering program along with the second year subjects.
4. Provided further that, the students belonging to B.Sc. stream shall be considered only after filling the supernumerary seats in this category with students belonging to the diploma stream.
5. Provided further that students, who have passed diploma in engineering & Technology from a university approved institution or B.Sc. degree from a recognized university defined by UGC, shall also be eligible for admission to the first year engineering degree courses subject to vacancies in the first year class in as the vacancies at lateral entry are exhausted. However, the admission shall be based strictly on the eligibility criteria as mentioned in 1, 2, 3 and 4 above

6. ALLOCATION OF SEATS

6.1 FRESH ENTRY 10 + 2

The total number of seats in each discipline is 30. Seat allocation for each discipline for different states and other quota is given below.

6.2 LATERAL ENTRY

Diploma holders and BSc degree holders shall be eligible for admission to second year Engineering course(s) upto a maximum of 10% of approved intake which shall be over above supernumerary to the "Approved intake" plus the unfilled vacancies of 1st year.

* Unfilled seats will be added to All India Open Category.

7. SELECTION AND ADMISSION

SELECTION FOR ADMISSION UNDER VARIOUS QUOTA IS DONE AS MENTIONED BELOW:

7.1 ALL INDIA OPEN CATEGORY

-Aggregate of compulsory subjects along with Physics, Chemistry, Mathematics, Biology for Biotechnology.

-Aggregate of compulsory subjects along with Physics, Chemistry, Mathematics for other departments.

-The merit list shall be based on 70% of 12th standard and 30% of JEE main/advanced score for fresh entry.

7.2 UNIVERSITY QUOTA

The University quota shall be taken care as per rules.

7.3 STATE QUOTA

Selection for admission under State quota is done by respective State Governments. On receipt of the list of nominated Candidates from respective Government, admission formalities are completed by the School as per eligibility criteria.

7.4 LATERAL ENTRY

Selection for admission under lateral entry will be as per marks obtained in Diploma/B.Sc.

7.5 FEES STRUCTURE

Fees to be paid at the time of admission/renewal of admission for B.Tech program at school of engineering & technology, Nagaland University

FEES STRUCTURE TABLE

| Sl. No | Fees | Periodicity | Amount (₹) (1 st Semester) | Amount (₹) (All Semester) |
|--------|---------------------------------------|----------------|--|------------------------------|
| 1 | Admission fee | Once | 1050/- | - |
| 2 | Registration fee | Once | 400/- | - |
| 3 | Tuition fee | Every Semester | 7000/- | 7000/- |
| 4 | Laboratory fee (as applicable) | Every Semester | 1050/- | 1050/- |
| 5 | Library fee | Every Semester | 320/- | 320/- |
| 6 | Library caution Money (Refundable) | Once | 500/- | - |
| 7 | Sports fee | Every Semester | 60/- | 60/- |
| 8 | Medical fee | Every Semester | 110/- | 110/- |
| 9 | Examination fee | Every Semester | 810/- | 810/- |
| 10 | Students' activity fee | Every Semester | 320/- | 320/- |
| 11 | Annual Magazine fee | Every Semester | 110/- | 110/- |
| 12 | Students' Aid fund | Once | 210/- | - |

| | | | | |
|-----------------------|--|----------------|-----------------|-----------------|
| 13 | Workshop/Seminar/ Conference fee | Once | 840/- | - |
| 14 | Industrial interface & Technical Fest | Every Semester | 500/- | 500/- |
| 15 | Placement Activities | Once | 1500/- | |
| 16 | Internet fee | Every Semester | 110/- | 110/- |
| 17 | Department Caution Money (Refundable) | Once | 1580/- | - |
| 18 | University Development Fund | Once | 100/- | - |
| | Sub Total | | 16,570/- | 10,390/- |
| FOR HOSTELLERS | | | | |
| 19 | Hostel Admission | Once | 200/- | |
| 20 | Hostel fee | Every Semester | 3000/- | 3000/- |
| 21 | Hostel Caution Money (Refundable) | Once | 1580/- | - |
| | Sub Total | | 4780/- | 3000/- |

TRANSPORTATION CHARGES

TRANSPORTATION (THOSE AVAILING UNIVERSITY BUS FACILITY) - ₹600/- PER SEMESTER.

- Students who desire to withdraw his/her name from the roll of the University and claim any refund then the fees shall be dealt with as per the University /UGC/MHRD/AICTE/ICAR/NCTE guidelines.
- Hostel Fee does not include Mess Fee.
- The fee structures are subject to change from time to time.
- Fees should be deposited using Online State Bank I-Collect using Debit/Credit Card/Netbanking/SBI Power Jyoti.
The receipt can be generated from the same portal.

| OTHERS | | |
|---------------|---|---------------|
| 1 | Identity Card/Duplicate ID Card | 100 per Card |
| 2 | Repeat of examination | 300 per Paper |
| 3 | Late fine Beyond 7 days of starting of course (For 2nd Semester and Subsequent Semester) | 100 per Day |

7.6 REGISTRATION IN VARIOUS COURSES

Candidate has to take admission by payment of prescribed fees immediately after

selection. In case of failure to pay fees at the time of admission, the seat allotted to the candidate(s) will stand forfeited.

Physical presence of the candidates is mandatory for registration. Every student has to fill up prescribed course registration forms (3 copies).

7.7 EXAMINATION AND EVALUATION

Semester system with internal evaluation comprises of continuous assessments, Mid term exam, internal assessment and End - Term Theory & Practical Examinations. The performance of a student in a particular course is evaluated and expressed in a 10 points grading scale which are converted to letter grade as given in the **Regulation No. 18.1** as follows:

| MARKS OBTAIN | EQUIVALENT LETTER GRADE | CREDIT POINTS |
|--------------|-------------------------|---------------|
| 91 to 100 | O | 10 |
| 81 to 90 | A | 9 |
| 71 to 80 | B | 8 |
| 61 to 70 | C | 7 |
| 51 to 60 | D | 6 |
| 45 to 50 | E | 5 |
| Below 45 | F | 0 |

| CGPA | CLASS |
|---------------|------------------------------|
| 8.0 and Above | First Class with Distinction |
| 6.5 to 7.9 | First Class |
| 5.5 to 6.4 | Second Class |
| 5.0 to 5.4 | Pass |
| Below 5.0 | Failed |

The final performance of a student on completion of the B.Tech. course will depend on the cumulative grade point average (CGPA).

- ★ TO BE ELIGIBLE FOR APPEARING IN THE END TERM EXAMINATION, 75% ATTENDANCE IS MANDATORY IN ALL COURSE.

ACADEMIC REGULATIONS

RULES AND REGULATIONS FOR BACHELOR OF TECHNOLOGY

1. GENERAL

1.1 Short Titles

These Regulations may be called the “Bachelor of Technology (B. Tech) Regulations” of the School of Engineering and Technology (SET), Nagaland University.

1.2. Date of Enforcement

These Regulations shall come into force with effect from the beginning of the academic session and there after.

1.3. Extent of Application

These Regulations shall apply to students seeking admission to B. Tech. Degree in:

- Agricultural Engineering and Technology
- Biotechnology
- Computer Science and Engineering
- Electronics and Communication Engineering
- Information Technology

and as the case may be and admitted in the SET, Nagaland University. These Rules and Regulations may be amended from time to time.

1.4. Interpretation

Subject to such advice as may be given by the Executive Council or the Academic Council, the decision of the Vice-Chancellor shall be final and no suit, application, petition, revision or appeal shall lie in a court of law or in any authority outside the University in respect of interpretation of these Regulations.

2.DEFINITIONS

2.1. Academic Year

The academic year of SET, Nagaland University shall ordinarily be from mid-July to mid-June and shall consist of two semesters. Academic bodies of the University is however empowered to modify the same if need arises.

2.2. Semester

The academic year shall have two terms each of which shall be of about 19½ weeks duration known as Semester. Inter semester shall be regulated by completion of minimum academic/teaching hours envisaged in the provision of the rule.

2.3. Minimum working days in a semester

A semester shall have at least 100 full working day excluding the examination days. In case the required number of working days falls short of the above due

to unforeseen and unavoidable circumstances, the same shall be made up by arranging extra classes by the teacher concerned. The number of classes (for theory and practical components separately) for different credit load of course(s) shall be as noted hereunder.

- 1 (one) credit hour course-13 classes minimum
- 2 (two) credit hour course-26 classes minimum
- 3 (three) credit hour course-39 classes minimum
- 4 (four) credit hour course-52 classes minimum

2.4. Credit Hour(s)

Credit(s) shall signify the quantum of work done corresponding to 1 hour of theory and 2 to 3 hours of laboratory, field/farm practical classes every week.

2.5. Course(s)

A course is a unit of instruction or segment of a subject matter under any discipline carrying a specific number of credit hour(s) value on 10.00 point scale.

2.6. Grade Point (GP)

Grade Point shall be calculated as per section 18.1.

3. ACADEMIC CALENDAR

3.1. Calendar

The academic calendar shall be prepared by the Dean/ Academic Section of the School and it shall specify the schedule of academic activities of each semester/ academic year. The academic calendar shall include curricular and extracurricular activities. It shall also include holidays and inter semester break period.

4. ADMISSION

4.1. Admission Notice

Notice for admission in B. Tech. programme shall be issued by the Dean/ Admission Convener through mass media at least two months ahead of the date fixed for the commencement of the academic year.

4.2. Admission Committee

The Dean shall constitute an Admission Committee with the following members to oversee the overall admission procedure:-

- 1) Professor/ Assoc. Prof./ Senior Faculty - Convenor
- 2) Two faculty (on rotation) - Member
- 3) I/C Academic & Examination - Member Secretary

The committee shall advertise the admission dates, design the brochure and pamphlets relating to admission, set the dates for counselling and prepare merit list of all applicants. The term of the committee shall be for a period of 1 (one) year only.

4.3. Admission Procedure

The application for admission only on prescribed form duly filled in and completed in all respect must reach the Dean of SET on or before the last date specified for the purpose through online.

4.4. Minimum Qualification for admission to B. Tech. Programme

The candidates seeking admission to any Discipline of Bachelor of Technology should secure in aggregate the minimum of 50% marks for General Category and 45% marks in case of SC/ST Category along with the criteria given below:-

- a. In Branches such as Computer Science & Engineering, Information Technology, Electronics & Communication Engineering and Agricultural Engineering & Technology, students should have Physics, Chemistry and Mathematics in their 10+2 Exam.
- b. In Biotechnology, the students should have Physics, mathematics, Chemistry and Biology in their 10+2 Exam.

The Admission criteria may be changed from time to time by the University as deemed fit. Preference shall be awarded to applicants having a valid CBSE JEE MAIN/ ADVANCE score.

4.5. Lateral Admission

The candidates seeking lateral admission to any Discipline of Bachelor of Technology should satisfy the criteria given below:-

1. Passed Diploma examination from an AICTE approved institution; with at least 50% marks (45% in case of candidates belonging to reserved category) in appropriate branch of Engineering / Technology.
2. Passed B. Sc Degree from a recognized University as defined by UGC, with at least 50% marks (45% in case of candidates belonging to reserved category) and passed XII standard with mathematics as a subject.
3. Provided that in case of students belonging to B. Sc. Stream, shall clear the subjects of Engineering Graphics/ Engineering Drawing and Engineering Mechanics of the first year engineering program along with the second year subjects.
4. Provided further that, the students belonging to B. Sc. Stream shall be considered only after filling the supernumerary seats in this category with students belonging to the Diploma stream.
5. Provided further that students, who have passed Diploma in Engineering & Technology from an AICTE approved institution or B.Sc Degree from a recognized University as defined by UGC, shall also be eligible for admission to the first year Engineering Degree courses subject to vacancies in the first year class in case the vacancies at lateral entry are exhausted. However, the admissions shall be based strictly on the eligibility criteria as mentioned in 1, 2, 3, and 4 above.

4.6. School of Engineering and Technology Entrance Examination

The admission to the B. Tech programme may be done based on the Merit List of

the School of Engineering and Technology Entrance Examination (SETEE). The conduct of SETEE is on the sole discretion of the Admission Committee.

4.7. Maximum number of seats in each discipline

The maximum number of students to be admitted to the B. Tech. Programmes shall be 30 in each discipline.

5. SEAT ALLOCATION

5.1. Reservation of Seats

For B.Tech. Degree programme the number of seats reserved under various categories is given below:

| | | |
|--|---|----|
| Total number of seats | : | 30 |
| Unreserved Category (to be filled through Merit) | : | 14 |
| Nagaland Govt. Nominees | : | 6 |
| Meghalaya Govt. Nominees | : | 1 |
| Mizoram Govt. Nominees | : | 1 |
| Arunachal Pradesh Govt. Nominees | : | 1 |
| Sikkim Govt. Nominees | : | 1 |
| Assam Govt. Nominees | : | 1 |
| Manipur Govt. Nominees | : | 1 |
| Tripura Govt. Nominees | : | 1 |
| Jammu & Kashmir | : | 1 |
| University Quota | : | 1 |
| Differently Abled | : | 1 |

**Reservation Policy of the University shall be applicable for all the categories of candidates.*

5.2. Unfilled Seat

The unfilled seat(s) under any category shall be allotted to Candidates from Nagaland provided they should fulfil all Admission Eligibility Criteria mentioned in Section 4.3.

6. HOSTEL SEAT ALLOCATION

- 6.1. The School provides Hostel Seats to both boys and girls depending on the availability of Seats.
- 6.2. Family accommodation shall not be provided to any student of the undergraduate courses.
- 6.3. All students must abide by the rules and regulations of the hostel as may be framed from time to time by the Hostel Management Committee.

7. ATTENDANCE OF STUDENTS

- 7.1. Attendance in all classes (lectures, tutorials, laboratories, practical,

studio, workshops etc) must be at least 75 percent of the total classes. A student shall be debarred from appearing in the End-Term Examination if Her/His attendance falls below 75 percent and shall be awarded an F Grade in that course.

7.2. Condonation of Attendance

The Dean may, on the recommendation of the Advisor/ Course In-charge, condone any attendance up to 5 per cent in a course(s) in exceptional circumstances as given below (in a and b) and shall allow the student with an attendance of 75 per cent or more to appear at the end term examination. No condonation under any circumstances shall be granted to those having below 75 per cent of attendance in a course(s).

a. Authorized absence under official directives

The Dean of the School, on the recommendation of the concerned Head/ In-charge, may permit a student to represent the University/ School in the inter-University or at the National level/ Regional level curricular and co-curricular activities. The period for which the student is deputed for the above shall be treated as leave. The Head/ In-charge of the Department, Academic cell/In-charge Student Welfare as well as the student concerned shall, however, ensure that Her/His attendance does not fall short of the minimum fixed vide section 7.1. The Dean shall notify the name(s) of such student (s) to the Head/ In-charge of the Department for conveying the information to the teacher(s)/Instructor(s) concerned for the record. The Head/ In-charge of the Department, Academic Cell, shall convey the same to the Advisor of the student(s).

b. Serious illness

If a student is unable to attend classes owing to serious illness, the student concerned/guardian shall submit an application along with a medical certificate from the University Medical Officer stating clearly the period for which the student was advised for treatment and rest along with recommendation of the hostel warden within 3 days from the date of reporting to the Dean. Such application shall be addressed to the Dean, who may grant leave for the days of absence.

7.3. It shall be the responsibility of the student to intimate the Warden of the hostel in which She/He is residing, and the concerned instructors regarding Her/His absence before availing the leave.

7.4. Notification regarding class attendance

The record of class attendance of all students in every course shall be prepared by the Teacher(s)/ Instructor(s) concerned at least 7 days prior to the date of commencement of the End-Term Examination and the name of the student(s) having shortage of attendance shall be notified three days prior to the

commencement of the End-Term Examination by the Dean through the respective Head/ In-charge of the Department.

8. CONDUCT AND DISCIPLINE

- 8.1. Students shall conduct themselves within and outside the precincts of the School in a manner befitting the students of an institution of national importance.
- 8.2. Ragging in any form is banned: acts of ragging shall be considered as gross indiscipline and shall be severely dealt with.
- 8.3. The following acts of omission and/or commission shall constitute gross violation of the code of conduct and are liable to invoke disciplinary measures by the Student Disciplinary Action Committee.
 - a. Ragging
 - b. Lack of courtesy and decorum; indecent behavior anywhere within or outside the campus.
 - c. Willful damage or stealthy removal of any property/belongings of the School/Hostel or of fellow students.
 - d. Stealing, Gambling, Possession, consumption or distribution of alcoholic drinks or any kind of hallucinogenic drugs.
 - e. Immoral activities.
 - f. Mutilation or unauthorized possession of library books.
 - g. Noisy and unseemly behavior, disturbing studies of fellow students.
 - h. Hacking in computer systems (such as entering other person's area without prior permission, manipulation and/ or damage of computer hardware and software etc.)
 - i. Use of University/School premises for any purposes other than that for which it meant without the permission of the authority concerned.
 - j. Breach of the University rules and regulations.
 - k. Any other cause/act which may lower the prestige of the University/School.
 - l. Organizing meeting by students inside the campus or calling the outsider to organize meeting inside the hostel campus without permission.
 - m. Violation of hostel discipline.
 - n. Any other act of gross indiscipline.

Commensurate with the gravity of the offence, the punishment may be reprimand, fine, expulsion from the hostel, debarment from and examination, rustication for a specified period or even outright expulsion from the school.

8.4. **Disciplinary punishment by the Dean of the school**

- a) The Dean of the School may impose following punishment on matters

relating to academic affairs, and acts of indiscipline by a student. Warning, fine up to ₹ 500/-, placement on 'Conduct Probation'/debarring for one semester/stopping the stipend/fellowship/scholarship, etc.

- b) On the recommendation of the Disciplinary Committee, the Dean of the School may impose the following punishments.
- i. Expulsion from the Hostel and confiscation of caution money which has been deposited.
 - ii. With the approval of the Vice-Chancellor, debarring from more than one semester, imposition of a fine above ₹ 500/- (Rupees Five Hundred) only, and rustication/expulsion from the School.

8.5. Disciplinary punishment by the Head of the Department (HOD)/ Hostel Warden

- a) The HOD/ Warden shall issue warning and/or a fine up to Rs.100/- only for violating the disciplinary rules mentioned in section 8.3.
- b) The Hostel Warden may refer the matter to the Dean of School for placing the case before the Disciplinary Committee for necessary action, if the gravity of the case(s) does not fall under his/her purview for disposal.

8.6. Placement on conduct probation

A student found guilty for the violation of the rules and regulation of the School/ University/Hostel or acts indiscipline or misbehaviour, may be placed on conduct probation by the Dean of the School for a specified period of not less than 1(one) semester. During the period of conduct probation, a student shall not be allowed to:

- a) Represent the School/University in sports, cultural contest, etc., inside or outside the University.
- b) Hold office in student organization and society.
- c) If a student, who had been on conduct probation on 2(two) previous occasions, is again found guilty for another spell of conduct probation, he/she shall be dropped from the roll of the school.

8.7. Rustication/Expulsion

- a. Rustication/Expulsion is a removal of a student from the roll of the School as a punishment from the School. The minimum period of rustication shall be 1(one) semester in addition to the remaining of the semester for which the order is passed. In such cases, Vice-Chancellor's approval is necessary.
- b. Expulsion is permanent removal from the School Hostel. An expelled student shall not be permitted to get admitted into the school of the University.
- c. A rusticated student may rejoin his/her class in the School after expiry of the rustication period on obtaining formal permission of the Dean of School.

8.8. Procedure for rustication/Expulsion from the School

Before a student is rusticated/expelled, the following procedures shall be observed:

- a) On receipt of complaint against the conduct of a student, the Dean of School shall enquire into the matter within 7(seven) days of receipt of the complaint and place it before the Disciplinary Committee, not later than 15(fifteen) days from the date of receipt. If the disciplinary Committee specifies that there is need to review the case for rustication/expulsion of a student, the student shall be allowed to explain in writing about the rustication against him/her or appear before the Disciplinary Committee to show cause/explain why he/she should not be rusticated/expelled.
- b) The concerned student shall have to submit his/her explanation within 7(seven) days from the date of issue of intimation by the Dean of School.
- c) After receiving the explanation or hearing in person, the Disciplinary Committee shall examine the case.
- d) If, at this stage, the Disciplinary Committee is convinced that is a genuine case of rustication/expulsion, the Dean of School shall forward the recommendation for consideration and approval of the Vice-Chancellor.

8.9. Cases of adoption of unfair means in an examination shall be reported to the Dean and the answer script of the student shall be marked "0" or "F" Grade.

8.10. Composition of the Disciplinary Committee.

The School of Engineering and Technology shall have a Disciplinary Committee constituted by the Dean.

- | | | |
|------|---|--------------------|
| I. | Professor/Sr. Assoc/Asstt. Professor | - Chairman |
| II. | Boys Hostel Warden | - Member |
| III. | Girls Hostel Warden | - Member |
| IV. | Advisor | - Member |
| V. | One student representative nominated by the Dean of the School | - Member |
| VI. | Dean/ In- Charge, Students Welfare | - Member Secretary |

Presence of more than 50 percent of the members is needed to complete the quorum.

9. HOSTEL RULES AND REGULATIONS

9.1. These Rules applies to all the students who are staying in the hostel of the School of Engineering and Technology, Nagaland University.

9.2. Rooms

- a) **Admission and Allotment:** Students who seek admission to the hostel have to apply separately in the Hostel Registration/ admission Form

which can be obtained from the Administrative office. Room allocations shall be done during the Hostel admission.

b) **Room Changes**

- i) Room allotments are normally valid for the entire academic year.
- ii) Students must occupy only those rooms specifically allotted to them.
- iii) Students must not shift/ move to another room without the permission of the warden. If a room change is desired, a written request may be given to the Warden with proper justification. Approval of room change is the sole discretion of the Warden.

c) **Taking care of own room**

- i) Hostel rooms are equipped with furniture and fittings of appliances. Student occupying the room shall sign for the receipt of items in Register. Students shall be responsible to hand over the items in their original serviceable condition to hostel authorities while leaving the rooms on closure of the academic session.
 - ii) No furniture must be removed from respective rooms. Removal of furniture or furnishings shall invite disciplinary action. All university furniture must be in the room and in proper condition when a student move out of the room.
 - iii) Any damage to hostel property shall be replaced by recovering the cost of repair from the individual concerned. If the damaged item is irreparable, the actual cost of the property shall be realized from the individual concerned. In cases where responsibility for such acts cannot be determined, a common fine shall be imposed on all the occupants of the room/ hostel.
- d) **Repairing works:** The hostel warden shall assist the students for repairs in the respective rooms. The Warden should be informed if there is any repair to be carried out in written form through the prefect.

9.3. Personal Property

- a) Each student shall safeguard their belongings and shall be responsible for their personal property.
- b) Wardens may ask the students to shift their belongings/ vacate the room for maintenance work/ during an emergency/ during vacation.
- c) Use of equipment such as electric heaters, video systems, loud speakers, etc. is strictly prohibited inside the hostel rooms. Any defaulters, if found, shall be levied a fine of Rs. 200.00/- (Rupees Two Hundred Only) for first time offender and expulsion beyond that.

9.4. Energy Conservation

Conservation of energy and resources is a major concern of the University.

- a) Lights and fans must be switched off at all times when no one is in the

room.

- b) Electrical problems in the room should be reported immediately to the Warden.
- c) Water taps must be turned off when they are not in use.

9.5. Cleanliness

- a) Hostellers shall be responsible for the cleanliness of their respective room and the premises. Rooms must be kept clean and tidy for health and safety reasons.
- b) Students are advised not to leave any items like paper, covers of toilet soap, sanitary napkins etc. in the bathrooms. Any form of waste should not be flushed down the toilet and should be disposed properly.
- c) Students should participate in mass social work from time to time as per the instruction laid down by the prefect or warden as initiative of Swaach Bharat. Hostellers not participating shall be levied a fine of ₹ 100.00/- (Rupees One Hundred Only) per person.

9.6. General Discipline

- a) Ragging is strictly Prohibited and anyone found guilty shall be punished as per rules and regulations laid down by the Supreme Court of India.
- b) Students are not allowed to stay in the hostel during the class hours unless it is unavoidable due to illness or any other valid reason.
- c) Students who wish to stay back in the hostel during semester break with proper justification should take prior permission from the warden.
- d) If the student decides to leave the hostel they should inform the warden.
- e) The hostellers are not permitted to stay out of the hostel beyond the closing time. A student requiring staying beyond the closing time must obtain proper authorization from Hostel Warden.
- f) Prefects along with assistant prefect of the respective hostels shall take attendance at 8:00 PM everyday and submit the weekly attendance report to the warden every Monday.
- g) Any Hostellers wishing to stay out for the night/ weekend should submit an application to the Warden for permission. For girls, consent of the Guardian/ Parents must be communicated to the concerned Warden. Such permission shall be given once in a month for a maximum period of two nights only, preferably during weekends. No student shall leave the hostel without prior permission of the hostel warden.
- h) Any Hosteller staying out of Hostel without obtaining prior permission from the Warden shall be liable to disciplinary action and expulsion. The first offence of this nature, if supported by satisfactory explanation verified from the Parent/ Local guardian, may be considered after imposing a fine of ₹ 200.00/- (Rupees Two Hundred Only). However, a repetition of the same offence shall result in expulsion.
- i) In case a student requires hospitalization, His/ her parents/ guardian must be informed. Parents / guardian are required to communicate to the

concerned Warden in this regard.

- j) Students shall inform the warden for any extension of leave though verbal or written communication.
- k) Students should refrain from any activity that is likely to infringe on the privacy of others or interfere with their studies.
- l) The Warden/ Institute/ Hostel authorities shall conduct surprise checks periodically and if anyone is found violating the above rules, disciplinary action shall be taken against the defaulter. The hostel rooms are subject to inspection by the Institute/ Hostel authorities to make sure that they are kept neat and tidy. Unauthorized items like liquor, drugs, lethal weapons etc., are prohibited within the hostel premises.
- m) Students are prohibited from consuming alcoholic drinks, drugs, cigarettes, tobacco products or any other intoxicants inside the hostel and are strictly prohibited from entering the hostel after consuming such items. Consumption of prohibited items shall be liable for strict disciplinary action, including expulsion/rustication from Hostel/ Institute.
- n) No Parent/ Guardian/ Visitor of a student shall be allowed to stay in their room without permission from the warden. Visitors are allowed to visit students in their common rooms, except in the girl's hostel. No hosteller is allowed to permit any visitor of the opposite sex in their room. If any visitor of the opposite sex is found, they shall be expelled from the institution without any warning.
- o) No party/ social gathering shall be allowed within the premises of the hostel unless prior permission is taken from the Warden/ Campus in charge.
- p) Study hour shall be strictly maintained for the welfare of all the students in the hostel. Students shall not visit rooms of other students after 8:00 PM.
- q) Students who are detained from the college are not entitled to stay in the hostel and hence shall not be granted Hostel admission. However, depending on the availability of seats, the warden may admit the detained students based on their performance after full payment of hostel admission fee.
- r) A detained scholar under special circumstances may be permitted to stay in the hostel for a maximum period of 1 month during examination time based on the availability of seat. Permission shall be granted based on the recommendation from the department HOD and with the knowledge of the parents. Students can write an application for such stay to the Warden. They have to pay Mess Fee to the Mess in-charge on the basis of daily rate prevailing at the time of applying. During the stay in the hostel the student should strictly adhere to the rules and regulations of the hostel.

9.7. Mess Rules

- a) The term of Prefect and assistant prefect shall be 1 year only.

- b) The term for Mess manager and assistant mess manager shall be 3 months only.
- c) The Prefect and Mess manager shall be entitled to 100% concession in mess fee for the extra responsibility they perform during their tenure.
- d) Every hosteller shall join the hostel mess. Meals/ food should not be cooked in the individual room. The timing of the mess shall be
 - i) Morning: 7:00-8:30 A.M
 - ii) Evening: 5:00-7:00 P.M.
- e) All hostellers must pay the mess fees before 10th of every month. Defaulters shall be charged fine of ₹ 50.00/- (Rupees Fifty Only) per day till 15th of the month. After the 15th day it shall be ₹ 100.00/- (Rupees One Hundred Only) per day. Habitual offender shall be expelled from the hostel after recovering the due amount.
- f) Audit of the mess account should be carried out at the end of every month. The audit committee shall consist of Prefect (convener), mess manager (Secretary) and one representative from every batch of students, the warden shall be part of the committee from time to time. The batch representative shall be rotated every month. The audit report should be submitted to the warden every month.
- g) If a student is on leave from the hostel for continuously more than 10 days he/ she can apply for deduction in the mess fee. This rule shall apply only to those who take leave as per the procedure.

10. CHANGE OF BRANCH/ DISCIPLINE

- 10.1. Normally, a student admitted to a particular branch/ discipline of the undergraduate programme shall continue studying in that discipline till completion.
- 10.2. However, in special cases the School may permit a student to change from one discipline of studies to another after the first two semesters.

Such changes shall be permitted, in accordance with the provisions laid down hereinafter, from a B. tech. programme in any discipline to a B. Tech programme in any other discipline.
- 10.3. Only those students shall be eligible for consideration of a change of discipline after the second semester, who have completed all the common credits required in the first two semesters of their studies, in their first attempt.
- 10.4. Applications for a change of discipline must be made by intending eligible students in the prescribed form. The Academic Section shall call for applications in the beginning of the odd semester of each academic year and the completed forms must be submitted by the last date specified in the notification.
- 10.5. Students may enlist up to three choices of discipline, in order of preference, to which they wish to change over. It shall not be permissible to alter the choice after the application had been submitted.

- 10.6. Change of discipline shall be made strictly in order of merit of the applicants. For this purpose, the student must have a CGPA of atleast 7.5 obtained at the end of the second semester. In case of a tie the JEE (MAIN) Score of the applicants shall be considered. In the absence of JEE (MAINS) score, the department may devise its own strategy to select the candidates.
- 10.7. The applicants may be allowed a change in discipline, strictly in order of merit, subject to the limitation that the strength of a branch should not fall below the existing strength by more than ten percent and should not go above the sanctioned strength by more than ten percent.
- 10.8. All changes of discipline made in accordance with the above rules shall be effective from the third semester of the applications concerned. No change of discipline shall be permitted after this.
- 10.9. All changes of discipline shall be final and binding on the applicants. No student shall be permitted, under any circumstances, to refuse the change of discipline offered.

11. COURSE STRUCTURE

- 11.1. In order to qualify for a B. Tech. degree of the School, a student is required to complete the credit requirement as prescribed in the curriculum for a particular discipline/ programme. The credit requirements for a programme shall be as per the total credits offered by the respective Departments.
- 11.2. The course work requirements may be broadly divided into following main groups of subjects:
 - i. Base Course (Humanities, Social Sciences, Applied Sciences and Mathematics)
 - ii. Core Engineering Courses (Departmental and Inter-Disciplinary)
 - iii. Elective Courses (Departmental and Inter-Disciplinary)
- 11.3. Every B. Tech programme shall have a curriculum and syllabi for the courses approved by the different Board of Undergraduate Studies (BUGS) of the University/School. BUGS shall discuss and recommend the syllabi of all the under graduate courses offered by the department from time to time before sending the same to the School Board and make recommendations to the A.C. for consideration and approval.
- 11.4. Medium of instruction, project report and examination shall be in English.
- 11.5. The curriculum of a department shall also include an industrial/ summer/ winter training for 6-8 weeks duration. The training work are to be satisfactorily completed by every student. The training may be obtained during any summer/ winter vacation after the student has completed 4th semester and before 7th semester.
- 11.6. Faculty Advisor: To help the students in planning their courses of

study and getting general advice on the academic programme, the concerned department shall assign Faculty Advisor(s) for each batch of students. In the first year, the Dean shall assign Faculty Advisors from among the regular faculty

12. REGISTRATION

- 12.1. Every student is required to register for the approved courses through the Faculty Advisor at the commencement of each semester on the day fixed for such registration and notified in the Academic Calendar.
- 12.2. Students who do not register on the day announced for the purpose may be permitted late registration up to the notified day in the Academic Calendar on payment of an additional late fee. However, the registration cannot be allowed after a period of 1 week from the date of registration. The registration fee and late fee may be changed from time to time.
- 12.3. Only those students shall be permitted to register who have
- A. cleared all school, hostel and library dues and fines (in any) of the previous semesters.
 - B. paid all required advance payments of School and Hostel dues for the current semester and
 - C. not been debarred from registering on any specific ground.
- 12.4. A student who obtains a CGPA lower than 5.0 with grade 'E' or grade 'F' in some subjects may be permitted by the Dean of Academic affairs on the recommendations of the BUGS to repeat one or more E graded subjects along with the failed subjects, provided, the subject(s) is/are being offered therein.
- 12.5. When a student re-registers for a subject, in accordance with Section 13.5, Her/His new grade shall be used for SGPA and CGPA calculation.

13. EXAMINATION RULES

- 13.1. A semester shall normally consist of 1 Mid-Term Examination and 1 End-Term Examination. The mark distribution in theory and practical courses shall be as follows:-

I. Theory

| Sessional Assessment | | | |
|----------------------|--|------------|-------|
| Mid-Term | Assignments/ quiz/ presentation/ tests | End – Term | Total |
| 30 | 10 | 60 | 100 |

II. Practical

| Sessional Assessment | | | End-Term | |
|------------------------------|---------------------|-----------|--------------------------|-------|
| Assignments/ tests/charts | Practical Record | Viva Voce | Practical Examination | Total |
| 15 | 15 | 10 | 60 | 100 |

13.2. Mid Term Examination

- a) Mid term examination shall be centrally conducted by the office of the Dean in the middle of the semester as per academic calendar.
- b) Notice for Mid term examination shall be issued by the Dean at least 7(seven) days ahead of the examinations.
- c) A student registering for a course must sit for the mid term examination.

13.3. End Term Examination

- a) The theory paper of end term examination shall be centrally conducted by the office of the Dean. The practical examination(s) shall be completed by the course teacher/instructor at least one week prior to commencement of theory examination(s). Heads/ In-charges of the Department shall monitor the completion of the courses of their discipline offered in a semester.
- b) The dates and time table shall be notified by the Dean of the School at least 15 days ahead of the examination. The Head of the Department shall notify the dates of practical examination(s) to ensure their completion one week before commencement of theory examination.

13.4. To pass in a course, a student must secure 45% marks. Mid-Term, Practical and End-Term Examinations shall be mandatory.

13.5. If a student obtains 'F' Grade in any course,

- a. She/ He may be allowed to register and re-take (or re-assess) the course as and when the course is offered by the Department in the next Academic session only. A student shall normally be allowed to register and re-take the course and attendance shall be exempted for that course provided She/ He attempted all the Examinations/ sessional assessment mentioned in 13.1. in the first attempt. However, the student must keep in touch with the course instructor and get the relevant study materials. For a repeat course, the student shall appear in all the Examinations listed in section 13.1. and perform all assignments/ exercises given by the Course Instructor.
- b. In case a student does not attend any of the courses in the current semester, the student has to register afresh for the courses in the next Academic session as and when the course(s) is/are offered. The rules in section 13.5.(a) shall not be applicable. The student shall not be promoted to the Next Year until She/ He completes the courses by completing all

the Sessional Assessment and Examinations prescribed in section 13.1. in that semester and satisfies the conditions in section 13.6. Attendance for those courses shall be mandatory and Rules of section 7 shall be applicable.

- c. A student must pay ₹ 300 only (Rupees Three Hundred only) per course if She/ He registers as per section 13.5.(a). However, if a Student registers as per section 13.5.(b), the normal registration fee for that semester shall be applicable.

13.6. Promotion Rules

- a. To get promotion to the next year, a student must not have a total of more than 3 (three) back papers in the previous semesters.
- b. There shall be no restriction of maximum number of back papers for registration to even semesters.

13.7. Custody of Answer Script

The answer scripts of all examinations shall be in the custody of the Dean of the School.

13.8. Result Recommendation Committee

The results of B. Tech. Examinations shall be recommended for declaration by a Result Recommendation Committee.

The Committee shall consist of the following members constituted by the Dean for a period of 2 (two) years :

- | | | |
|----|--|--------------------|
| 1) | Dean | : Chairman |
| 2) | One Professor (by rotation) | : Member |
| 3) | Two Associate Professors (by rotation) | : Members |
| 4) | Two Assistant Professors (by rotation) | : Members |
| 5) | In-Charge, Academic Cell (UG) | : Member Secretary |

The corrected results shall be compiled, CGPA worked out, and tabulated results shall be sent by the Dean to the Controller of Examinations (COE), Nagaland University in each semester for final declaration of results. The results of the last semester on being notified by the Dean of the School shall be integrated with the earlier semester (s) results for compilation of marks/grades point and final CGPA.

14. PROJECT EVALUATION

- a. The project work is normally in two stages, each spread over semester 7 and semester 8. At the end of the first stage, the student is required to submit a preliminary report of Her/ His work within the prescribed date to the project supervisor. The second stage of the project is completed in the following semester.
- b. Three unbound typed copies of the project report prepared according to the prescribed format available in the academic section shall be submitted to the department at least one week before the probable date of oral examination. The oral examination shall be held within 1 month

from the date of submission of the project. On successful completion of the oral examination, each student shall be required to submit corrected bound copy of the project one each to the department, library and supervisor.

- c. Extension of time usually not exceeding 1 month from the announced last date for submission of the project may be granted to the student in case of insufficient progress in the project work. Further, if the reports are not submitted within the allowed period of time, 'F' grade shall be awarded for the project.
- d. A student obtaining 'F' Grade in project shall have to register in the next semester and perform the project works again.
- e. The project evaluation shall be done by a panel consisting of the project supervisor, a faculty from relevant department of the school and one external faculty of the same discipline from other allied institution.

15. DURATION OF THE B. TECH PROGRAMME

Normally a student should complete all the requirements for undergraduate programme in eight semesters (4 years). However, academically weaker students who do not fulfill some of the requirements in their first attempt and have to repeat them in subsequent semesters and may be permitted up to 12 consecutive semesters (6 years from the first semester registration) to complete all the requirements of the degree.

16. TEMPORARY WITHDRAWAL FROM THE SCHOOL

16.1. A student who has been admitted to an undergraduate programme of the School may be permitted to withdraw temporarily from the School on the grounds of prolonged illness or grave calamity in the family for a period of one semester or more, provided:

- a. He applies to the School within at least 6 weeks of the commencement of the semester or from the date She/ He last attended Her/His classes whichever is later, stating fully the reasons for such withdrawal together with supporting documents and endorsement of Her/His guardian.
- b. The School is satisfied that, counting the period of withdrawal, the student is likely to complete Her/His requirements of the B. Tech. degree within the time limits specified in section 15.1. above.
- c. There are no outstanding dues or demands in the School/Hostel/ Department/Library etc.

16.2. A student who has been granted temporary withdrawal from the School under the provisions of section 16.1. shall be required to pay fees/ charges (except tuition fees and hostel dues) till such time as Her/His name is on the Roll List. However, fees once paid shall not be refunded.

16.3. Normally, a student shall be permitted only one such temporary withdrawal during Her/ His tenure as a student of the under graduate programme.

16.4. After temporary withdrawal, the student has to repeat the same semester that She/ He has withdrawn as and when the semester starts in the next academic session.

17. TERMINATION FROM/ LEAVING THE B. TECH PROGRAMME

17.1. A student is required to leave the school on the following grounds:

- a. A student failing to complete the B. Tech course in 6 years shall be issued Not Competent to Study Engineering (NCSE) certificate and his enrollment shall be terminated from the School.
- b. If a student is absent for more than 6 (six) weeks in a semester without sanctioned leave Her/ His name shall be struck off the rolls.
- c. A student may be expelled on the recommendations of the Students Disciplinary Action Committee.

17.2. Students Leaving the School

A students who wants to leave the School during or after a semester or on completion of degree programme must officially be discharged by the Dean of School on obtaining clearance certificate in prescribed form.

17.3. Refund of Caution Money

The caution money of the student shall be refunded 1(one) month after he/she leaves the school, subject to clearance of dues, if any. The claim form for refund of caution money shall not be entertained after a period of 1(one) year from the date of discharge of the student from the school. The caution money shall not be refunded if a student leaves the school without permission from competent authority and or he/she does not attend any class after admission.

18. GRADING SYSTEM

18.1. Based on the performance of a student, each student is awarded a final letter grade in each subject at the end of the semester. The letter grade and the corresponding grade points are as follows:

| Grade | Marks Range | Grade points |
|--------------|--------------------|---------------------|
| O | 91-100 | 10 |
| A | 81-90 | 9 |
| B | 71-80 | 8 |
| C | 61-70 | 7 |
| D | 51-60 | 6 |
| E | 5-50 | 5 |
| F | Below 45 | 0 |

A letter grade 'F' in any subject implies a failure in that subject.

18.2. Semester Grade Point Average (SGPA) shall be computed for each semester. The SGPA shall be calculated as follows:

$$SGPA = \frac{\sum C_i \times G_i}{\sum C_i}$$

Where C_i is the credit assigned to a particular course and

G_i is the Grade Point awarded to a student in a particular course.

The Grade Point is calculated as in section 18.1.

#The SGPA shall be rounded up to 2 decimal points.

18.3. A Cumulative Grade Point Average (CGPA) shall be computed at the end of each semester and communicated to the students along with the SGPA and the grades for that semester.

The CGPA gives the cumulative performance of the student from the first semester up to the end of the semester to which it refers, and shall be calculated as follows:

$$CGPA = \frac{\sum SGPA_i \times TC_i}{\sum TC_i}$$

Where $SGPA_i$ is the SGPA obtained in a semester and TC_i is the total credits in a semester.

Whenever a student repeats a course in any semester, the latest grade (s) obtained by him/ her in the course is to be considered in the computation of SGPA and CGPA from that semester onwards. #The CGPA shall be rounded up to 1 decimal point.

18.4. Correction of grade points

If any discrepancy in the grade sheet/result is detected, it shall be rectified and necessary correction shall be done by the University.

18.5. Semester Report

Semester Report on prescribed form shall be issued by the Dean and copies shall be forwarded to the student. One such copy shall be retained by the Dean Office for record.

18.6. The Final Performance of a student on completion of the B. Tech Course shall depend on the CGPA. The performance of the Student shall be determined as shown below:-

| CGPA | CLASS |
|---------------|------------------------------|
| 8.0 and above | First Class with Distinction |
| 6.5 to 7.9 | First Class |
| 5.5 to 6.4 | Second Class |
| 5.0 to 5.4 | Pass |
| Below 5.0 | Failed |

19. ELIGIBILITY FOR THE AWARD OF B. TECH

19.1. A student must complete the minimum total credit required for the

award of B. Tech Degree in the respective Discipline/ Department. The minimum total credit shall be 150-160 in each Department.

- 19.2. A student shall be declared to be eligible for the award of B. Tech if She/ He has
- Completed all the credit requirements for the degree with grade 'E' or Higher grade in each of the subjects.
 - Obtained a CGPA of 5.00 or more at the end of the semester in which She/ He completes all the requirements for the degree.
 - No dues to the School, department, hostels etc.
 - No disciplinary action is pending against her/ him.
- 19.3. Each Department shall award GOLD medal to the Topper of the batch on completion of the Eight Semester based on the following criteria:-
- The student should have obtained CGPA of not less than 8.5 at the end of the 8th semester.
 - The student should have cleared all the papers in the first attempt during the entire duration of the course.
 - The student has not been placed under Academic/ conduct probation during the course of Her/ His studies.
- 19.4. The award of B. Tech degree must be recommended by the COE and approved by the Academic Council of the University.

20. SWAYAM/ MOOCs

- 20.1. Each department of SET shall prepare a list of courses to be offered through the SWAYAM platform duly recommended by the respective BUGS.
- 20.2. On-line MOOC/SWAYAM/NPTEL courses shall contribute up to only 20% of the total courses being offered in a particular program in a Semester.
- 20.3. The courses offered on SWAYAM must supplement the teaching-learning process in the Institution. Every student opting a particular paper (course) would be required to register online for the MOOCs course/ paper.
- 20.4. The Head of Department shall designate a course coordinator/facilitator to guide the students throughout the course duration and to facilitate/ conduct the Lab/Practical sessions/examinations.

20.5. Evaluation

Evaluation of MOOCs Course shall be done internally by the concerned faculty coordinator of the course and the marks/ grades shall be submitted to the Examination Cell before the last date of submission.

9. DEPARTMENTS

9.1. DEPARTMENT OF AGRICULTURAL ENGINEERING AND TECHNOLOGY

Department Incharge: **Dr. Pramod Ch Dihingia**

E-mail: **pramod@nagalanduniversity.ac.in**

The Department of Agricultural Engineering and Technology focuses and deals with the use of engineering tools and practices to solve the real world problem of crop production, handling and processing problems for food and fiber industry. “Everything else can wait but not Agriculture” with this famous motto, the department envisages to solve the problem with the application of scientific knowledge in diverse and multi-disciplinary activities for overall development of farming community and better livelihood.

The Agricultural Engineering Department of the school came into existence in 2008. The department follows four years degree course as adopted by the school.

Core field of Agricultural Engineering and Technology

- Soil and Water Engineering,
- Farm Power and Machinery Engineering
- Processing and Food Engineering
- Other interdisciplinary field.

AIMS AND OBJECTIVES:

- To provide scientific knowledge to increase agricultural production and productivity through better management of land and water resources
- To encourage the design and use of appropriate and more efficient agricultural machinery,
- To provide better techniques of post-harvest technology
- To design improved methods of processing and preservation of foods.

LABORATORIES OF AGRICULTURAL ENGINEERING AND TECHNOLOGY

- Land and Water Engineering and Management Lab
- Farm Power and Machinery Engineering Lab
- Processing and Food Engineering Lab
- Engineering Workshop Lab (Common for all the branches)

TO DEVELOP THEIR SELF-CONFIDENCE TO HANDLE TECHNICAL MATTERS (MANDATORY FOR THE AWARD OF DEGREE):

- Industrial training for 30 days during pre-final year.
- Opportunity to do research through final year project.
- Poster Presentation
- Class presentation (PPT)

- Industrial Workshop Visit (FMP, SWE, PFE related)

TEACHING FACULTY

| SL. NO | NAME OF THE FACULTY | DESIGNATION |
|--------|-------------------------|---------------------|
| 1 | Dr. Chitrasen Lairenjam | Assistant Professor |
| 2 | Mr. Wungshim Zimik | Assistant Professor |
| 3 | Dr. Pramod Ch Dihingia | Assistant Professor |
| 4 | Ms. Sentirenla Pongen | Guest Faculty |
| 5 | Mr. Imliwapang Jamir | Guest Faculty |

9.2. DEPARTMENT OF BIOTECHNOLOGY

Department Incharge: **Dr. Imlitoshi Jamir**

E-mail: **imlitoshi@nagalanduniversity.ac.in**

The Department is presently offering B.Tech. Biotechnology course, a four years degree programme under which the students will be taught on broad range of subjects related to Genetics, Microbiology, Molecular Biology, Bioenergetics, Tissue culture, Recombinant DNA Technology, Bioinformatics, Chemical engineering and Bioprocess engineering etc. The Department already has a Biotechnology lab which is equipped with modern biotechnological tools like PCR Thermal Cycle, Horizontal Electrophoresis Systems, Vertical Slab Gel Systems (Mini model), Vertical Slab Gel Systems (Slab Gel Regular Model), Transilluminator, Horizontal air flow cabinet, cold centrifuge, Distillation unit, Milipore water system, UV-visible spectrophotometer, Malvern zetasizer S90, etc. The Department has completed three projects sponsored by Department of Biotechnology, Government of India.

LABORATORY

- Watson Molecular Biology Lab
- JC Bose Plant Tissue Culture Lab
- Dayhoff Bioinformatics Lab
- Pasteur Microbiology Lab
- Mendel Genetics Lab
- Biochemical Engineering Lab (Under construction)

THRUST AREA OF RESEARCH:

- Molecular characterization of *Vibrio cholerae* transcription factors and also on the gene regulation of *Vibrio cholerae*.
- Characterization and application of Mithun (*Bosfrontalis*) Milk protein.
- Development of advance drug delivery system

TEACHING FACULTY

| SL. NO | NAME OF THE FACULTY | DESIGNATION |
|--------|----------------------------|---------------------|
| 1 | Dr. Imlitoshi Jamir | Assistant Professor |
| 2 | Dr. Rajkrishna Mondal | Assistant Professor |
| 3 | Dr. Hanumant Singh Rathore | Assistant Professor |

9.3. DEPARTMENT OF COMPUTER SCIENCE & ENGINEERING

Department Incharge: **Mr. Akangjungshi Longkumer**

Department of Computer Science & Engineering emphasizes on the all-round development of the student, both in the theoretical and practical knowledge. The Department also takes special care in developing problem solving attitude in students and prepare them to be mentally equipped to join any organization.

VISION:

- To be a front runner in Technology.
- The Department not only aims to produce industry ready graduates but also entrepreneurs.

THRUST AREAS:

- Multimedia
- Web Technology
- System Software
- Wireless Technology
- Networking
- Software Engineering
- Distributed Systems
- Operating System

TEACHING FACULTY

| SL. NO | NAME OF THE FACULTY | DESIGNATION |
|--------|----------------------------|---------------------|
| 1 | Mr. Chenlep Yakha Konyak | Assistant Professor |
| 2 | Mr. Akangjungshi Longkumer | Assistant Professor |
| 3 | Mr. Ramesh Singh | Assistant Professor |
| 4 | Mrs. Yanthungbeni Humtsoe | Guest Faculty |
| 5 | Mr. Imlitoshi Jamir | Guest Faculty |
| 6 | Mr. Aosungkum | Guest Faculty |
| 7 | Ms. Khriemeno Nakhro | Guest Faculty |

9.4. DEPARTMENT OF ELECTRONICS & COMMUNICATION ENGINEERING

Department Incharge: **Mrs. Bendangchila Longkumer**

E-mail: **bendangchila@nagalanduniversity.ac.in**

Electronics & Communication Engineering is about electronic components, integrated circuits, microprocessors and consists of designing, fabrication, testing, maintaining and supervising the manufacture of electronic equipments. The Department of Electronics and Communication Engineering focuses to impart education and training at the Under-graduate levels with special emphasis on design aspects of electronic systems. The training imparted to the students would be such that it will make them competent enough to be the fountain head of new ideas and innovations in Science and Technology and who shall contribute its growth in partnership with industries and develop and harness it for the welfare of the Nagas and the nation.

VISION:

To bring about a cultural revolution through digital technology and demonstrate the spirit of sharing, and caring by people who will create, collaborate and make Nagaland a better knowledgeable State.

THRUST AREA OF RESEARCH

- Integrated electronics and circuits
- Computer technology
- GPS systems
- Antennas
- Signal processing based biomedical instruments
- Tele-communication
- Power electronics
- Communication Systems
- Satellite transponders
- VLSI chips

TEACHING FACULTY

| SL. NO | NAME OF THE FACULTY | DESIGNATION |
|---------------|-----------------------------|---------------------|
| 1 | Ms. Ayangla Jamir | Assistant Professor |
| 2 | Mrs. Bendangchila Longkumer | Assistant Professor |
| 3 | Ms. Imesangla Ao | Assistant Professor |
| 4 | Ms. Merensongla Aier | Guest Faculty |
| 5 | Ms. Imtinungla Longkumer | Guest Faculty |
| 6 | Ms. Monalita Sonar | Guest Faculty |

9.5. DEPARTMENT OF INFORMATION TECHNOLOGY

Department Incharge: **Mr. Sourav Hazarika**

E-mail: **sourav@nagalanduniversity.ac.in**

The Department of Information Technology focuses in training students in the creation of Computer Based Information Systems for efficient storage, processing, analyzing and dissemination of information to cater to the needs of the people in making decision making process more effective.

VISION:

Information Technology has been the driving force for economic growth which has uplifted many all around the world. For reasons best known, Nagaland as such has not benefited by this economic growth. The Department of Information Technology, Nagaland University endeavors to bridge this gap which hopes to reduce the digital divide and hopefully bring about economic growth to the people of Nagaland in the near future. It is hoped that a new way of work culture will emerged in the state through IT. Our students will play an effective role as Technologists and make notable contribution to the development of our society.

THRUST AREAS OF RESEARCH:

- Information Systems Development
- Computer Networks
- Distributed Systems
- Web Technology
- Programming
- Image Processing
- Knowledge Representation
- Artificial Neural Networks
- Ontology Dynamic

OBJECTIVES:

- To foster innovative thinking among the students in the field of IT
- To orient students with the skills required in IT industry
- To motivate students in the field of research
- To equip the students with cutting edge IT Technologies

POSITION OF TEACHING FACULTY

| SL. NO | NAME OF THE FACULTY | DESIGNATION |
|--------|-----------------------|---------------------|
| 1 | Mr. Shanchamo Yanthan | Assistant Professor |
| 2 | Mr. Teisovi Angami | Assistant Professor |
| 3 | Mr. Sudipta Patowary | Assistant Professor |

| | | |
|---|---------------------|---------------------|
| 4 | Mr. Sourav Hazarika | Assistant Professor |
| 5 | Ms. Noktienla Aier | Guest Faculty |

9.6 COMMON POOL

Incharge: **Mr. Ramesh Singh**

E-mail: **ramesh@nagalanduniversity.ac.in**

The School of Engineering and Technology has a Common Pool section which teaches the common Engineering courses like Engineering Mathematics, Physics, Chemistry, Basic Electronics, Basic Electricals, Engineering Mechanics etc. The Common Pool section has a computer lab with a capacity of 30 computers to conduct practical courses for the First Year students. The Central Workshop offers practical courses like welding, fitting, carpentry, sheet metal etc. in the First Year Engineering as well as for other semesters in the Agricultural Engineering & Technology Department.

LABORATORY:

- Physics Lab
- Chemistry Lab
- Engineering Drawing Lab
- Workshop
- Computer Lab for programming and Internet

POSITION OF TEACHING FACULTY:

| SL. NO | NAME OF THE FACULTY | DESIGNATION |
|--------|--------------------------|------------------------|
| 1 | Dr. Pelesakuo Kehie | Chemistry |
| 2 | Ms. Yasmin Choudhry | Physics |
| 3 | Dr. Sanjay Sarkar | Mathematics |
| 4 | Mr. Chipem Zimik | Mathematics |
| 5 | Mr. Maongtemsu Pongener | Mechanical Engineering |
| 6 | Mr. Binay Kumar Yadav | Electrical engineering |
| 7 | Ms. P. Lipoktola Imechen | English |

10. COURSE STRUCTURE**10.1. B.TECH. FIRST YEAR (COMMON TO ALL DISCIPLINE)****1st SEMESTER**

| Sl. No. | Subject Code | Course Name | Contact hours per week | | | Credits |
|--------------------------|--------------|------------------------------|------------------------|---|---|-----------|
| | | | L | T | P | |
| Theory | | | | | | |
| 1 | G1T01 | Engineering Mathematics-I | 3 | 1 | - | 4 |
| 2 | G1T02 | Engineering Physics-I | 3 | - | - | 3 |
| 3 | G1T03 | Technical English | 2 | 1 | - | 3 |
| 4 | G1T04 | Basic Electrical Engineering | 3 | - | - | 3 |
| 5 | G1T05 | Engineering Chemistry | 3 | - | - | 3 |
| 6 | G1T06 | Engineering Graphics | 1 | - | - | 1 |
| Total Theory | | | | | | 17 |
| Practical | | | | | | |
| 1 | G1L01 | Engineering Physics-I Lab | - | - | 2 | 1 |
| 2 | G1L02 | Engineering Chemistry Lab | - | - | 2 | 1 |
| 3 | G1L03 | Engineering Graphics Lab | - | - | 4 | 1 |
| Total Practical | | | | | | 4 |
| Total of Semester | | | | | | 21 |

2nd SEMESTER

| Sl. No. | Subject Code | Course Name | Contact hours per week | | | Credits |
|--------------------------|--------------|-------------------------------|------------------------|---|---|-----------|
| | | | L | T | P | |
| Theory | | | | | | |
| 1 | G2T01 | Engineering Mathematics-II | 3 | 1 | - | 4 |
| 2 | G2T02 | Engineering Physics-II | 3 | - | - | 3 |
| 3 | G2T03 | Fundamentals of Computing | 3 | - | - | 3 |
| 4 | G2T04 | Basic Electronics | 3 | - | - | 3 |
| 5 | G2T05 | Engineering Mechanics | 2 | 1 | - | 3 |
| 6 | G2T06 | Environmental Science | 3 | - | - | 0 |
| Total Theory | | | | | | 16 |
| Practical | | | | | | |
| 1 | G2L01 | Workshop Practice | - | - | 4 | 2 |
| 2 | G2L02 | Basic Electronics Lab | - | - | 2 | 1 |
| 3 | G2L03 | Fundamentals of Computing Lab | - | - | 2 | 1 |
| 4 | G2L04 | Engineering Physics-II Lab | - | - | 2 | 1 |
| Total Practical | | | | | | 5 |
| Total of Semester | | | | | | 21 |

10.2 AGRICULTURAL ENGINEERING AND TECHNOLOGY
(THIRD SEMESTER ONWARDS)
SECOND YEAR
3rd SEMESTER

| Sl. No. | Subject Code | Course Name | Contact hours per week | | | | Credits |
|--------------------------|--------------|--|------------------------|---|---|-----------|-----------|
| | | | L | T | P | Total | |
| Theory | | | | | | | |
| 1 | MAT3T1 | Mathematics – III | 3 | - | - | 3 | 4 |
| 2 | AE3T01 | Strength of Material | 3 | - | - | 3 | 3 |
| 3 | AE3T02 | Soil Mechanics | 3 | - | - | 3 | 3 |
| 4 | AE3T03 | Farm Power | 2 | - | - | 2 | 2 |
| 5 | AE3T04 | Electrical Machine & Power utilization | 2 | - | - | 2 | 2 |
| 6 | AE3T05 | Engineering properties of Biological Material & Food Quality | 2 | - | - | 2 | 2 |
| 7 | AE3T06 | Machine drawings & Computer graphics | 2 | - | - | 2 | 2 |
| Total Theory | | | | | | 17 | 17 |
| Practical | | | | | | | |
| 1 | AE3L01 | Soil Mechanics Lab | - | - | 2 | 2 | 1 |
| 2 | AE3L02 | Farm Power Lab | - | - | 2 | 2 | 1 |
| 3 | AE3L03 | Engineering properties of Biological Material & Food Quality Lab | - | - | 2 | 2 | 1 |
| 4 | AE3L04 | Machine drawing & Computer graphics lab | - | - | 2 | 2 | 1 |
| Total Practical | | | | | | 8 | 4 |
| Total of Semester | | | | | | 25 | 21 |

4th SEMESTER

| Sl. No. | Subject Code | Course Name | Contact hours per week | | | | Credits |
|--------------------------|--------------|--|------------------------|---|---|-----------|-----------|
| | | | L | T | P | Total | |
| Theory | | | | | | | |
| 1 | AE4T01 | Surveying and Leveling | 2 | - | - | 2 | 2 |
| 2 | AE4T02 | Theory of Machines | 2 | 1 | - | 3 | 3 |
| 3 | AE4T03 | Design of structures | 2 | - | - | 2 | 2 |
| 4 | AE4T04 | Watershed hydrology | 2 | 1 | - | 3 | 3 |
| 5 | AE4T05 | Fluid Mechanics | 2 | 1 | - | 3 | 3 |
| 6 | AE4T06 | Crop Process Engineering | 2 | - | - | 2 | 2 |
| 7 | AE4T07 | Engineering Thermodynamics and Heat Engine | 3 | - | - | 3 | 3 |
| Total Theory | | | | | | 17 | 17 |
| Practical | | | | | | | |
| 1 | AE4L01 | Watershed Hydrology -I Lab | - | - | 2 | 2 | 1 |
| 2 | AE4L02 | Crop Process Engineering Lab | - | - | 2 | 2 | 1 |
| 3 | AE4L03 | Surveying and Leveling Lab | - | - | 2 | 2 | 1 |
| Total Practical | | | | | | 6 | 3 |
| Total of Semester | | | | | | 24 | 21 |

**THIRD YEAR
5th SEMESTER**

| Sl. No. | Subject Code | Course Name | Contact hours per week | | | | Credits |
|--------------------------|--------------|---|------------------------|---|---|-----------|-----------|
| | | | L | T | P | Total | |
| Theory | | | | | | | |
| 1 | AE5T01 | Workshop Technology | 2 | - | - | 2 | 2 |
| 2 | AE5T02 | Machine Design | 2 | 1 | - | 3 | 3 |
| 3 | AE5T03 | Heat & mass Transfer | 2 | - | - | 2 | 2 |
| 4 | AE5T04 | Farm Machinery & Equipment | 2 | - | - | 2 | 2 |
| 5 | AE5T05 | Ground Water, Wells & Pumps | 2 | - | - | 2 | 2 |
| 6 | AE5T06 | Drying & Storage Engineering | 3 | - | - | 3 | 3 |
| 7 | AE5T07 | Soil & water Conservation Engg. | 3 | - | - | 3 | 3 |
| Total Theory | | | | | | 17 | 17 |
| Practical | | | | | | | |
| 1 | AE5L01 | Farm Machinery & Equipment Lab | - | - | 2 | 2 | 1 |
| 2 | AE5L02 | Ground Water, Wells & Pumps Lab | - | - | 2 | 2 | 1 |
| 3 | AE5L03 | Drying & storage engineering Lab | - | - | 2 | 2 | 1 |
| 4 | AE5L04 | Soil & Water conservation Engineering Lab | - | - | 2 | 2 | 1 |
| Total Practical | | | | | | 8 | 4 |
| Total of Semester | | | | | | 25 | 21 |

6th SEMESTER

| Sl. No. | Subject Code | Course Name | Contact hours per week | | | | Credits |
|--------------------------|--------------|---|------------------------|---|---|------------|-----------|
| | | | L | T | P | Total | |
| Theory | | | | | | | |
| 1 | AE6T01 | Agriculture for Engineers | 3 | - | - | 3 | 3 |
| 2 | AE6T02 | Refrigeration & Air conditioning | 2 | 1 | - | 3 | 3 |
| 3 | AE6T03 | Transfer Process in Food Engineering | 3 | 0 | - | 3 | 3 |
| 4 | AE6T04 | Tractor systems & controls | 2 | - | - | 2 | 2 |
| 5 | AE6T06 | Irrigation and Drainage Engineering-I | 2 | - | - | 2 | 2 |
| 6 | AE6EL | Elective-I* | 3 | - | - | 3 | 3 |
| Total Theory | | | | | | 16 | 16 |
| Practical | | | | | | | |
| 1 | AE6L01 | Tractors systems & controls Lab | - | - | 2 | 2 | 1 |
| 2 | AE6L02 | Irrigation and Drainage Engineering I Lab | - | - | 2 | 2 | 1 |
| Total Practical | | | | | | Lab | |
| Total of Semester | | | | | | | |

Elective papers-I*

- (AE6EL01) Agribusiness management and trade.
- (AE6EL02) Entrepreneurship development and communication skills.
- (AE6EL03) Design and maintenance of green house.
- (AE6EL04) Soil and Water Conservation Structure

FOURTH YEAR
7th SEMESTER

| Sl. No. | Subject Code | Course Name | Contact hours per week | | | | Credits |
|--------------------------|--------------|--|------------------------|---|---|-----------|-----------|
| | | | L | T | P | Total | |
| Theory | | | | | | | |
| 1 | AE7T01 | Irrigation and Drainage Engineering -II | 2 | - | - | 2 | 2 |
| 2 | AE7T02 | Mechanics of Tillage & Traction | 2 | - | - | 2 | 2 |
| 3 | AE7T03 | Unit Operation in Dairy and Food Engineering | 3 | - | - | 3 | 3 |
| 4 | AE7T04 | Statistical Hydrology | 2 | 1 | - | 3 | 3 |
| 5 | AE7T05 | Industrial Training | - | - | - | - | 2 |
| 6 | AE7T06 | Project - I | - | - | 4 | 4 | 2 |
| 7 | AE7EL | Elective-II* | 3 | - | - | 3 | 3 |
| Total Theory | | | | | | 17 | 17 |
| Practical | | | | | | | |
| 1 | AE7L01 | Mechanics of Tillage & Traction Lab | - | - | 2 | 2 | 1 |
| 2 | AE7L02 | Unit Operation in Dairy and Food Engineering Lab | - | - | 2 | 2 | 1 |
| Total Practical | | | | | | 4 | 2 |
| Total of Semester | | | | | | 21 | 19 |

Elective papers-II*

- (AE7EL01) Remote sensing and GIS application.
- (AE7EL02) Tea Technology.
- (AE7EL03) Development of processed products and equipment.
- (AE7EL04) Waste and by-product utilization.
- (AE7EL05) Food Processing Plant Design & Layout

8th SEMESTER

| Sl. No. | Subject Code | Course Name | Contact hours per week | | | | Credits |
|--------------------------|--------------|---|------------------------|---|---|-----------|-----------|
| | | | L | T | P | Total | |
| Theory | | | | | | | |
| 1 | AE8T01 | Tractor Design & Testing | 3 | - | - | 3 | 3 |
| 2 | AE8T02 | Food Process and Packaging Technology | 3 | - | - | 3 | 3 |
| 3 | AE8T03 | Watershed planning & Management | 2 | - | - | 2 | 2 |
| 4 | AE8T04 | Project - II | - | - | 8 | 8 | 4 |
| 5 | AE8EL | Elective – III* | 3 | - | - | 3 | 3 |
| 6 | G8T01 | Indian Constitution | - | - | - | - | NC |
| Total Theory | | | | | | 18 | 15 |
| Practical | | | | | | | |
| 1 | AE8L01 | Tractor design & testing Lab | - | - | 2 | 2 | 1 |
| 2 | AE8L02 | Food Process and packaging technology Lab | - | - | 2 | 2 | 1 |
| 3 | AE8L03 | Seminar | - | - | 2 | 2 | 1 |
| Total Practical | | | | | | 6 | 3 |
| Total of Semester | | | | | | 24 | 18 |

Elective papers-III*

- (AE8EL01) Human Engineering and safety.
 - (AE8EL02) Biomass management for fodder and energy.
 - (AE8EL03) Production technology of agricultural machines.
 - (AE8EL04) Renewable Energy Source
 - (AE8EL05) Organic Farming for Sustainable Agricultural Production.
- TOTAL CREDITS = 42+118=160

10.3 BIOTECHNOLOGY (THIRD SEMESTER ONWARDS)
 SECOND YEAR
 3rd SEMESTER

| Sl. No. | Subject Code | Course Name | Contact hours per week | | | | Credits |
|--------------------------|--------------|---------------------------------|------------------------|---|---|-----------|-------------|
| | | | L | T | P | Total | |
| Theory | | | | | | | |
| 1 | BT3T01 | Biostatistics | 3 | - | - | 3 | 3 |
| 2 | BT3T02 | Biochemistry | 3 | - | - | 3 | 3 |
| 3 | BT3T03 | Microbiology | 3 | - | - | 3 | 3 |
| 4 | BT3T04 | Thermodynamics and Kinetics | 3 | - | - | 3 | 3 |
| 5 | CSB302 | Data Structures & algorithm | 3 | - | - | 3 | 3 |
| Total Theory | | | | | | 15 | 15 |
| Practical | | | | | | | |
| 1 | BT3L01 | Biochemistry Lab | - | - | 4 | 4 | 2 |
| 2 | BT3L02 | Microbiology Lab | - | - | 4 | 4 | 2 |
| 3 | CSB312 | Data Structures & algorithm Lab | - | - | 3 | 3 | 1.5 |
| Total Practical | | | | | | 11 | 5.5 |
| Total of Semester | | | | | | 26 | 20.5 |

4th SEMESTER

| Sl. No. | Subject Code | Course Name | Contact hours per week | | | | Credits |
|--------------------------|--------------|--------------------------------|------------------------|---|---|-----------|-----------|
| | | | L | T | P | Total | |
| Theory | | | | | | | |
| 1 | BT4T01 | Cellular Metabolism | 3 | - | - | 3 | 3 |
| 2 | BT4T02 | Cell and Developmental Biology | 3 | - | - | 3 | 3 |
| 3 | BT4T03 | Molecular Biology | 3 | - | - | 3 | 3 |
| 4 | BT4T04 | Genetics | 3 | - | - | 3 | 3 |
| 5 | AE4T05 | Fluid Mechanics | 2 | - | - | 3 | 3 |
| Total Theory | | | | | | 15 | 15 |
| Practical | | | | | | | |
| 1 | BT4L01 | Molecular Biology Lab | - | - | 4 | 4 | 2 |
| 2 | BT4L02 | Fluid Mechanics Lab | - | - | 2 | 2 | 1 |
| Total Practical | | | | | | 6 | 3 |
| Total of Semester | | | | | | 21 | 18 |

**THIRD YEAR
5th SEMESTER**

| Sl. No. | Subject Code | Course Name | Contact hours per week | | | | Credits |
|--------------------------|--------------|---------------------------------|------------------------|---|---|-----------|-------------|
| | | | L | T | P | Total | |
| Theory | | | | | | | |
| 1 | BT5T01 | Biophysics | 3 | - | - | 3 | 3 |
| 2 | BT5T02 | Enzyme Technology | 3 | - | - | 3 | 3 |
| 3 | BT5T03 | Immunology | 3 | - | - | 3 | 3 |
| 4 | BT5T04 | Plant Biotechnology | 3 | - | - | 3 | 3 |
| 5 | ITB502 | Database Management Systems | 3 | - | - | 3 | 3 |
| Total Theory | | | | | | 15 | 15 |
| Practical | | | | | | | |
| 1 | BT5L01 | Plant Biotechnology-Lab | - | - | 4 | 4 | 2 |
| 2 | BT5L02 | Immunology Lab | - | - | 2 | 2 | 1 |
| 3 | ITB511 | Database Management Systems Lab | - | - | 3 | 3 | 1.5 |
| Total Practical | | | | | | 9 | 4.5 |
| Total of Semester | | | | | | 24 | 19.5 |

6th SEMESTER

| Sl. No. | Subject Code | Course Name | Contact hours per week | | | | Credits |
|--------------------------|--------------|---|------------------------|---|---|-----------|-----------|
| | | | L | T | P | Total | |
| Theory | | | | | | | |
| 1 | BT6T01 | Recombinant DNA Technology and Applications | 3 | - | - | 3 | 3 |
| 2 | BT6T02 | Bioinformatics | 3 | - | - | 3 | 3 |
| 3 | BT6T03 | Heat and Mass Transfer | 3 | - | - | 3 | 3 |
| 4 | BT6T04 | Production and operations managements | 3 | - | - | 3 | 3 |
| 5 | BT6E01/02/03 | Elective-I* | 3 | - | - | 3 | 3 |
| Total Theory | | | | | | 15 | 15 |
| Practical | | | | | | | |
| 1 | BT6L01 | Bioinformatics Lab | - | - | 2 | 2 | 1 |
| 2 | BT6L02 | Recombinant DNA Technology Lab | - | - | 4 | 4 | 2 |
| Total Practical | | | | | | 6 | 3 |
| Total of Semester | | | | | | 21 | 18 |

*Elective-I:

1. Stem cell in health care
2. Bio-pharmaceutical technology
3. Proteomics and Genomics

**FOURTH YEAR
7th SEMESTER**

| Sl. No. | Subject Code | Course Name | Contact hours per week | | | | Credits |
|--------------------------|--------------|---|------------------------|---|---|-----------|-----------|
| | | | L | T | P | Total | |
| Theory | | | | | | | |
| 1 | BT7T01 | Food Biotechnology | 3 | - | - | 3 | 3 |
| 2 | BT7T02 | Pollution Control & Environmental Biotechnology | 3 | - | - | 3 | 3 |
| 3 | BT7T03 | Bioreactor Design and Analysis | 3 | - | - | 3 | 3 |
| 4 | BT7T04 | Animal Biotechnology | 3 | - | - | 3 | 3 |
| 5 | BT7E01/02/03 | Elective-II* | 3 | - | - | 3 | 3 |
| Total Theory | | | | | | 15 | 15 |
| Practical | | | | | | | |
| 1 | BT7L01 | Food Biotechnology Lab | - | - | 2 | 2 | 1 |
| 2 | BT7L02 | Biochemical Lab | - | - | 4 | 4 | 2 |
| 3 | BT7P01 | Mini project Seminar (Review and presentation) | - | - | - | - | 1 |
| 4 | BT7L03 | Colloquium | - | - | - | - | 1 |
| Total Practical | | | | | | 6 | 5 |
| Total of Semester | | | | | | 21 | 20 |

Elective-II*

1. Therapeutic hormone and growth factor
2. Industrial biotechnology
3. Microbial process engineering

8th SEMESTER

| Sl. No. | Subject Code | Course Name | Contact hours per week | | | | Credits |
|--------------------------|--------------|--|------------------------|---|----|-----------|-----------|
| | | | L | T | P | Total | |
| Theory | | | | | | | |
| 1 | BT8T01 | Biosafety, Bioethics and Intellectual property rights in Biotechnology | 3 | - | - | 3 | 3 |
| 2 | BT8T02 | Agricultural Biotechnology | 3 | - | - | 3 | 3 |
| 3 | BT8E03 | Elective-III* | 3 | - | - | 3 | 3 |
| 4 | G8T01 | Constitution of India | 3 | - | - | 3 | 0 |
| Total Theory | | | | | | 12 | 9 |
| Practical | | | | | | | |
| 1 | BT8P02 | Project | - | - | 20 | 20 | 10 |
| Total Practical | | | | | | 20 | 10 |
| Total of Semester | | | | | | 32 | 19 |

Elective-III*

1. Diagnostic Techniques
2. Bio analytical Techniques
3. Protein Modeling

$$\text{TOTAL CREDITS} = 42 + 115 = 157$$

10.4 COMPUTER SCIENCE & ENGINEERING
(THIRD SEMESTER ONWARDS)

SECOND YEAR
3rd SEMESTER

| Sl. No. | Subject Code | Course Name | Contact hours per week | | | Credits |
|---------------------|--------------|--|------------------------|---|---|---------|
| | | | L | T | P | |
| Theory | | | | | | |
| 1 | CSB301 | Object Oriented Programming | 3 | 0 | 0 | 3 |
| 2 | CSB302 | Data Structures & Algorithm | 3 | 0 | 0 | 3 |
| 3 | CSB303 | Computer Graphics & Virtual Reality | 3 | 0 | 0 | 3 |
| 4 | MAT3T2 | Differential Calculus | 3 | 1 | 0 | 4 |
| 5 | EC3T03 | Digital Electronics & Logic Design | 2 | 1 | 0 | 3 |
| Practical | | | | | | |
| 1 | CSB311 | Object Oriented Programming Lab | 0 | 0 | 3 | 1.5 |
| 2 | CSB312 | Data Structures & Algorithm Lab | 0 | 0 | 3 | 1.5 |
| 3 | EC3L02 | Digital Electronics & Logic Design Lab | 0 | 0 | 3 | 1.5 |
| Total Credit | | | 14 | 2 | 9 | 20.5 |

4th SEMESTER

| Sl. No. | Subject Code | Course Name | Contact hours per week | | | Credits |
|---------------------|--------------|--|------------------------|---|---|---------|
| | | | L | T | P | |
| Theory | | | | | | |
| 1 | CSB401 | Design & Analysis of Algorithms | 3 | 0 | 0 | 3 |
| 2 | CSB402 | Web & Internet | 3 | 0 | 0 | 3 |
| 3 | CSB403 | Formal Language & Automata Theory | 3 | 0 | 0 | 3 |
| 4 | CSB404 | Computer Organization & Architecture | 4 | 0 | 0 | 4 |
| 5 | MAT4T2 | Discrete Mathematics | 3 | 1 | 0 | 4 |
| Practical | | | | | | |
| 1 | CSB311 | Object Oriented Programming Lab | 0 | 0 | 3 | 1.5 |
| 2 | CSB312 | Data Structures & Algorithm Lab | 0 | 0 | 3 | 1.5 |
| 3 | EC3L02 | Digital Electronics & Logic Design Lab | 0 | 0 | 3 | 1.5 |
| Total Credit | | | 16 | 1 | 8 | 21 |

THIRD YEAR

5th SEMESTER

| Sl. No. | Subject Code | Course Name | Contact hours per week | | | Credits |
|---------------------|--------------|----------------------------------|------------------------|---|---|---------|
| | | | L | T | P | |
| Theory | | | | | | |
| 1 | CSB501 | Graph Theory | 3 | 0 | 0 | 3 |
| 2 | CSB502 | Operating System | 3 | 0 | 0 | 3 |
| 3 | CSB503 | Database Management Systems | 3 | 0 | 0 | 3 |
| 4 | CSB504 | Software Engineering | 3 | 0 | 0 | 3 |
| 5 | MAT5T1 | Numerical Analysis & Probability | 3 | 1 | 0 | 4 |
| Practical | | | | | | |
| 1 | CSB511 | Software Engineering Lab | 0 | 0 | 3 | 1.5 |
| 2 | CSB512 | Operating System Lab | 0 | 0 | 3 | 1.5 |
| 3 | CSB513 | Database Management Systems Lab | 0 | 0 | 3 | 1.5 |
| Total Credit | | | 15 | 1 | 9 | 20.5 |

6th SEMESTER

| Sl. No. | Subject Code | Course Name | Contact hours per week | | | Credits |
|---------------------|--------------|---------------------------------------|------------------------|---|---|---------|
| | | | L | T | P | |
| Theory | | | | | | |
| 1 | CSB601 | Compiler Design | 4 | 0 | 0 | 4 |
| 2 | CSB602 | Computer Networks | 3 | 0 | 0 | 3 |
| 3 | CSB62X | Elective-I | 3 | 0 | 0 | 3 |
| 4 | CSB62X | Elective-II | 3 | 0 | 0 | 3 |
| 5 | HSB601 | Project Management & Entrepreneurship | 2 | 0 | 0 | 2 |
| Practical | | | | | | |
| 1 | CSB611 | Computer Networks Lab | 0 | 0 | 3 | 1.5 |
| 2 | CSB612 | Compiler Design Lab | 0 | 0 | 3 | 1.5 |
| 3 | CSB613 | Application Programming Lab | 0 | 1 | 3 | 2.5 |
| Total Credit | | | 15 | 1 | 9 | 20.5 |

FOURTH YEAR

7th SEMESTER

| Sl. No. | Subject Code | Course Name | Contact hours per week | | | Credits |
|---------------------|--------------|----------------------|------------------------|---|----|---------------|
| | | | L | T | P | |
| Theory | | | | | | |
| 1 | CSB701 | Distributed System | 3 | 0 | 0 | 3 |
| 2 | CSB702 | Machine Learning | 3 | 0 | 0 | 3 |
| 3 | CSB72X | Elective-III | 3 | 0 | 0 | 3 |
| 4 | CSB72X | Elective-IV | 3 | 0 | 0 | 3 |
| Practical | | | | | | |
| 1 | CSB711 | Project-I # | 0 | 0 | 12 | 6 |
| 2 | CSB712 | Machine Learning Lab | 0 | 0 | 3 | 1.5 |
| 3 | CSB713 | Colloquium-I* | 0 | 0 | 0 | 0 (No credit) |
| Total Credit | | | 12 | 0 | 15 | 19.5 |

* The student will give presentation (Colloquium-I) on the summer/winter/industrial training (6 – 8 weeks) that She / He underwent during the vacation period after 5th or 6th semester. The credit(Pass or Fail) will be awarded in the 7th Semester under Colloquium-I. Presentation will be conducted in the beginning of 7th semester.

The student will submit a synopsis for their Project at the beginning of the semester in a specified format which should be approved by the departmental committee. The student will also have to present the progress of their project through seminars and progress reports

8th SEMESTER

| Sl. No. | Subject Code | Course Name | Contact hours per week | | | Credits |
|---------------------|--------------|-------------------------|------------------------|---|----|---------------|
| | | | L | T | P | |
| Theory | | | | | | |
| 1 | CSB82X | Elective-V | 3 | 0 | 0 | 3 |
| 2 | CSB83X | Open Elective-I | 3 | 0 | 0 | 3 |
| 3 | G8T01 | Constitution of India | 3 | 0 | 0 | 0 (No credit) |
| 4 | HSB801 | Human Relations at work | 2 | 0 | 0 | 2 |
| Practical | | | | | | |
| 1 | CSB811 | Project-II | 0 | 0 | 16 | 8 |
| Total Credit | | | 15 | 1 | 9 | 20.5 |

Total Credits = 42+118= 160

LIST OF ELECTIVE

| Sl. No. | Course Code | Semester | Course Title | L | T | P | Total Credits |
|------------------------------|-------------|----------|---|---|---|---|---------------|
| 1 | CSB621 | 6 | Data Mining | 3 | 0 | 0 | 3 |
| 2 | CSB622 | 6 | Data Analytics | 3 | 0 | 0 | 3 |
| 3 | CSB623 | 6 | Information Retrieval | 3 | 0 | 0 | 3 |
| 4 | CSB624 | 6 | Multimedia Technology | 3 | 0 | 0 | 3 |
| 5 | CSB625 | 6 | Software Testing | 3 | 0 | 0 | 3 |
| 6 | EC6T06 | 6 | Information Theory & Coding | 3 | 0 | 0 | 3 |
| 7 | EC8T01 | 6 | Digital Image Processing | 3 | 0 | 0 | 3 |
| 8 | MAT6T1 | 6 | Operations Research | 3 | 0 | 0 | 3 |
| | | | | | | | |
| 1 | CSB721 | 7 | Design & Management of Computer Network | 3 | 0 | 0 | 3 |
| 2 | CSB722 | 7 | Human Computer Interaction | 3 | 0 | 0 | 3 |
| 3 | CSB723 | 7 | Cloud Computing | 3 | 0 | 0 | 3 |
| 4 | CSB724 | 7 | Wireless Sensor Networks | 3 | 0 | 0 | 3 |
| 5 | CSB725 | 7 | Internet-of- Things | 3 | 0 | 0 | 3 |
| 6 | CSB726 | 7 | Real Time Systems | 3 | 0 | 0 | 3 |
| 7 | CSB727 | 7 | Advanced Computer Architecture & parallel programming | 3 | 0 | 0 | 3 |
| 8 | EC7EL1 | 7 | Embedded Systems & Design | 3 | 0 | 0 | 3 |
| | | | | | | | |
| 1 | CSB821 | 8 | Distributed Database | 3 | 0 | 0 | 3 |
| 2 | CSB822 | 8 | Artificial Intelligence | 3 | 0 | 0 | 3 |
| 3 | CSB823 | 8 | Speech & Natural Language Processing | 3 | 0 | 0 | 3 |
| 4 | CSB824 | 8 | Neural Networks & Deep Learning | 3 | 0 | 0 | 3 |
| | | | | | | | |
| LIST OF OPEN ELECTIVE | | | | | | | |
| 1 | CSB831 | 8 | Cryptography & Network Security | 3 | 0 | 0 | 3 |
| 2 | CSB832 | 8 | Mobile Applications & Services | 3 | 0 | 0 | 3 |
| 3 | CSB833 | 8 | Cyber Law & Ethics | 3 | 0 | 0 | 3 |
| 4 | CSB834 | 8 | Linux Internal | 3 | 0 | 0 | 3 |

The following courses will be offered through MOOCs/SWAYAM/NPTEL with in-house examination.

1. Embedded Systems
2. Software Testing
3. Artificial Intelligence
4. Internet-of-Things
5. Cryptography & Network Security

The following practical lab will be conducted under virtual lab.

1. Computer Organization & Architecture Lab
2. Software Engineering Lab

**10.5. ELECTRONICS & COMMUNICATION ENGINEERING
(THIRD SEMESTER ONWARDS)
SECOND YEAR
3rd Semester**

| Sl. No. | Subject Code | Type | Course Name | L | T | P | Credits | Contact Hrs/Week |
|------------------|--------------|------|--|---|---|---|-----------|------------------|
| THEORY | | | | | | | | |
| 1 | EC3T01 | PC | Network Theory | 3 | - | - | 3 | 3 |
| 2 | EC3T02 | PC | Electronic Devices & Circuits | 3 | - | - | 3 | 3 |
| 3 | EC3T03 | PC | Digital Electronics & Logic Design | 3 | - | - | 3 | 3 |
| 4 | EC3T04 | ES | Electrical Engineering Material | 2 | - | - | 2 | 2 |
| 5 | ITB303 | OE | Data Structures & Algorithm | 3 | - | - | 3 | 3 |
| 6 | MAT3T1 | BS | Mathematics-III | 3 | - | - | 3 | 3 |
| PRACTICAL | | | | | | | | |
| 7 | EC3L01 | PC | Electronic Devices & Circuits Lab | - | - | 2 | 1 | 2 |
| 8 | EC3L02 | PC | Digital Electronics & Logic Design Lab | - | - | 3 | 1.5 | 3 |
| 9 | ITB312 | OE | Data Structures Lab | - | - | 3 | 1.5 | 3 |
| Total | | | | | | | 21 | 25 |

4th Semester

| Sl. No. | Subject Code | Type | Course Name | L | T | P | Credits | Contact Hrs/Week |
|------------------|--------------|------|---|---|---|---|-----------|------------------|
| THEORY | | | | | | | | |
| 1 | EC4T01 | PC | Signals and Systems | 3 | - | - | 3 | 3 |
| 2 | EC4T02 | PC | Electromagnetic Field Theory | 3 | - | - | 3 | 3 |
| 3 | EC4T03 | PC | Microprocessor | 3 | - | - | 3 | 3 |
| 4 | EC4T04 | PC | Linear Integrated Circuits | 3 | - | - | 3 | 3 |
| 5 | EC4T05 | PC | Electronic Measurements & Instrumentation | 3 | - | - | 3 | 3 |
| 6 | MAT4T1 | BS | Mathematics –IV | 3 | - | - | 3 | 3 |
| PRACTICAL | | | | | | | | |
| 7 | EC4L01 | PC | Microprocessor Lab | - | - | 3 | 1.5 | 3 |
| 8 | EC4L02 | PC | Linear Integrated Circuits Lab | - | - | 3 | 1.5 | 3 |
| Total | | | | | | | 21 | 25 |

THIRD YEAR
5th Semester

| Sl. No. | Subject Code | Type | Course Name | L | T | P | Credits | Contact Hrs/Week |
|------------------|--------------|------|-------------------------------|---|---|---|-----------|------------------|
| THEORY | | | | | | | | |
| 1 | EC5T01 | PE | Antenna & Wave Propagation | 3 | - | - | 3 | 3 |
| 2 | EC5T02 | PC | Introduction to VHDL | 3 | - | - | 3 | 3 |
| 3 | EC5T03 | PC | Analog Communication | 3 | - | - | 3 | 3 |
| 4 | EC5T04 | PC | Microcontroller | 3 | - | - | 3 | 3 |
| 5 | EC5T05 | PC | Control Systems | 3 | - | - | 3 | 3 |
| 6 | EC5T06 | OE | Management & Entrepreneurship | 3 | - | - | 3 | 3 |
| PRACTICAL | | | | | | | | |
| 7 | EC5L01 | PC | Microcontroller Lab | - | - | 3 | 1.5 | 3 |
| 8 | EC5L02 | PC | VHDL Lab | - | - | 3 | 1.5 | 3 |
| Total | | | | | | | 21 | 23 |

6th Semester

| Sl. No. | Subject Code | Type | Course Name | L | T | P | Credits | Contact Hrs/Week |
|--|--------------|------|---------------------------------------|---|---|---|-----------|------------------|
| THEORY | | | | | | | | |
| 1 | EC6T01 | OE | Digital Communication | 3 | - | - | 3 | 3 |
| 2 | EC6T02 | PC | Digital Signal Processing | 3 | - | - | 3 | 3 |
| 3 | EC6T03 | PC | VLSI Technology | 3 | - | - | 3 | 3 |
| 4 | EC6T04 | PC | Computer Communication Networks | 3 | - | - | 3 | 3 |
| 5 | EC6T05 | PE | Wireless Communication | 3 | - | - | 3 | 3 |
| 6 | EC6T06 | PC | Information Theory Coding | 3 | - | - | 3 | 3 |
| PRACTICAL | | | | | | | | |
| 7 | EC6L01 | PC | Communication Systems Engineering Lab | - | - | 2 | 1.5 | 3 |
| 8 | EC6L02 | OE | Digital Signal Processing Lab | - | - | 2 | 1.5 | 3 |
| Total | | | | | | | 21 | 24 |
| Summer training/ Industrial Training* | | | | | | | | |

*6-8 weeks training will be held after 6th semester. However, viva-voce will be conducted in the 7th semester and the credit will be added as a part of the colloquium.

FOURTH YEAR
7th Semester

| Sl. No. | Subject Code | Type | Course Name | L | T | P | Credits | Contact Hrs/Week |
|------------------|--------------|------|---------------------------|---|---|---|-----------|------------------|
| THEORY | | | | | | | | |
| 1 | EC7T01 | PE | Microwave Engineering | 3 | - | - | 3 | 3 |
| 2 | EC7EL1/2/3 | PE | Elective I | 3 | - | - | 3 | 3 |
| 3 | EC7EL4/5/6 | PE | Elective II | 3 | - | - | 3 | 3 |
| PRACTICAL | | | | | | | | |
| 4 | EC7SM | PC | Colloquium* | - | - | - | 1 | 3 |
| 5 | EC7L01 | OE | Microwave Engineering Lab | - | - | 2 | 1 | 2 |
| 6 | EC7PJ | PC | Project** | | | | 6 | 6 |
| Total | | | | | | | 17 | 16 |

- * The student will submit a synopsis for their seminars on any technical topic at the beginning of the semester in a specified format which should be approved by the departmental committee. The student will also have to present the progress of their project through seminars and progress reports.
- ** The student will have to submit a synopsis and do the literature survey for their major project in this semester.

8th Semester

| Sl. No. | Subject Code | Type | Course Name | L | T | P | Credits |
|------------------|---------------|------|---------------------------|---|---|----|-------------|
| THEORY | | | | | | | |
| 1 | EC8T01 | OE | Digital Image Processing | 3 | - | - | 3 |
| 2 | EC8EL7/8/9 | PE | Elective III | 3 | - | - | 3 |
| 3 | EC8EL10/11/12 | PE | Elective IV | 3 | - | - | 3 |
| 4 | G8T01 | MC | Constitution of India(MC) | - | - | - | (No Credit) |
| PRACTICAL | | | | | | | |
| 5 | EC8PJ | PC | Project | - | - | 16 | 8 |
| Total | | | | | | | 17 |

Total Credits = 42+118= 160

Electives (I, II, III & IV)

| Subject Code | Course Name | Credit | L:P:T | Preferred Semester |
|--------------|--|--------|-------|--------------------|
| EC7EL1 | Embedded System & Design | 3 | 3:0:0 | VII |
| CSB502 | Operating Systems(SWAYAM) | 3 | 3:0:0 | VII |
| EC7EL3 | Biomedical Instrumentation | 3 | 3:0:0 | VII |
| EC7EL4 | Multimedia Communication | 3 | 3:0:0 | VII |
| EC7EL5 | Optical Fiber Communication | 3 | 3:0:0 | VII |
| EC7EL6 | Power Electronics | 3 | 3:0:0 | VII |
| EC8EL7 | Body Area Network | 3 | 3:0:0 | VII |
| EC8EL8 | Nano Technology | 3 | 3:0:0 | VII |
| EC8EL9 | Speech Processing | 3 | 3:0:0 | VIII |
| EC8EL10 | Wireless Cellular and LTE 4G Broadband | 3 | 3:0:0 | VIII |
| CSB831 | Cryptography & Network Security | 3 | 3:0:0 | VIII |
| EC8EL12 | Fundamentals of MEMS | 3 | 3:0:0 | VIII |

Courses which can be offered in MOOCS

Students can opt up to 20% of credits offered in current semester. The institution shall give the equivalent credit weightage to the students for the credits earned through online learning courses through SWAYAM platform in the credit plan of the program

| Subject Code | Type | Course Name | Credit | Preferred Semester |
|--------------|------|---------------------------------------|--------|--------------------|
| EC7EL6 | OE | Fundamentals of Power Electronics | 3 | VII |
| EC6T01 | OE | Fundamentals of Digital Communication | 3 | VI |
| EC3T03 | PC | Digital Electronics Circuit | 4 | III |
| EC4T04 | PC | Analog Circuits | 3 | IV |
| EC4T03 | PC | Microprocessor and Microcontroller | 3 | IV/V |
| EC5T01 | PE | Antennas | 3 | V |
| EC8HT02 | PE | Biomedical Signal Processing | 3 | VIII |
| EC6T06 | PC | Control Engineering | 3 | VI |
| EC7EL2 | OE | Introduction to Operating Systems | 3 | VIII |

10.6 INFORMATION TECHNOLOGY (THIRD SEMESTER ONWARDS)

SECOND YEAR
SEMESTER 3

| Sl. No. | Subject Code | Course Name | L | T | P | Credits |
|----------------------------------|--------------|--|---|---|---|-------------|
| THEORY | | | | | | |
| 1 | ECB303 | Digital Electronics & Logic Design | 2 | 1 | - | 3 |
| 2 | ITB301 | Object Oriented Programming | 3 | - | - | 3 |
| 3 | ITB302 | Computer Organization & Architecture | 3 | - | - | 3 |
| 4 | ITB303 | Data Structures | 3 | - | - | 3 |
| 5 | MAT3T2 | Differential Calculus | 3 | 1 | - | 4 |
| Total Credits (Theory) | | | | | | 16 |
| PRACTICAL | | | | | | |
| 1 | ITB311 | Object Oriented Programming Lab | - | - | 3 | 1.5 |
| 2 | ITB312 | Data Structures Lab | - | - | 3 | 1.5 |
| 3 | ECB313 | Digital Electronics & Logic Design Lab | - | - | 3 | 1.5 |
| Total Credits (Practical) | | | | | | 4.5 |
| Total Credits | | | | | | 20.5 |

4th Semester

| Sl. No. | Subject Code | Course Name | L | T | P | Credits |
|---------------------------------|--------------|-------------------------------------|---|---|---|-------------|
| THEORY | | | | | | |
| 1 | MAT4T2 | Discrete Mathematics | 3 | 1 | - | 4 |
| 2 | ITB401 | Computer Graphics & Virtual Reality | 3 | - | - | 3 |
| 3 | ITB402 | Operating System | 3 | - | - | 3 |
| 4 | ITB403 | Algorithm Analysis and Design | 3 | - | - | 3 |
| 5 | ITB404 | Formal Language & Automata Theory | 3 | - | - | 3 |
| PRACTICAL | | | | | | |
| 1 | ITB411 | Algorithm Analysis and Design Lab | - | - | 3 | 1.5 |
| 2 | ITB412 | Operating System Lab | - | - | 3 | 1.5 |
| 3 | ITB413 | Computer Graphics Lab | - | - | 3 | 1.5 |
| Total Credits(Practical) | | | | | | 4.5 |
| Total Credits | | | | | | 20.5 |

THIRD YEAR

SEMESTER 5

| Sl. No. | Subject Code | Course Name | L | T | P | Credits |
|----------------------------------|--------------|----------------------------------|---|---|---|-------------|
| THEORY | | | | | | |
| 1 | MAT5T1 | Numerical Analysis & Probability | 3 | 1 | - | 4 |
| 2 | ITB501 | Computer Networks | 3 | - | - | 3 |
| 3 | ITB502 | Database Management Systems | 3 | - | - | 3 |
| 4 | ITB503 | Compiler Design | 3 | - | - | 3 |
| 5 | | Elective I | 3 | - | - | 3 |
| Total Credits (Theory) | | | | | | 16 |
| PRACTICAL | | | | | | |
| 1 | ITB511 | Database Management Systems Lab | - | - | 3 | 1.5 |
| 2 | ITB512 | Compiler Design Lab | - | - | 3 | 1.5 |
| 3 | ITB513 | Network Lab | - | - | 3 | 1.5 |
| Total Credits (Practical) | | | | | | 4.5 |
| Total Credits | | | | | | 20.5 |

SEMESTER 6

| Sl. No. | Subject Code | Course Name | L | T | P | Credits |
|----------------------------------|--------------|---|---|---|---|-----------|
| THEORY | | | | | | |
| 1 | ITB601 | Industrial Economics & Principles of Management | 3 | - | - | 3 |
| 2 | ITB602 | Web Technology | 3 | - | - | 3 |
| 3 | ITB603 | Software Engineering | 3 | - | - | 3 |
| 4 | | Elective II | 3 | - | - | 3 |
| Total Credits (Theory) | | | | | | 12 |
| PRACTICAL | | | | | | |
| 1 | ITB611 | System Programming Lab | - | 1 | 3 | 2.5 |
| 2 | ITB612 | Web Technology Lab | - | - | 3 | 1.5 |
| 3 | ITBPJ1 | Project (Minor) | - | - | 6 | 3 |
| Total Credits (Practical) | | | | | | 7 |
| Total Credits | | | | | | 19 |

**FOURTH YEAR
SEMESTER 7**

| Sl. No. | Subject Code | Course Name | L | T | P | Credits |
|----------------------------------|--------------|-------------------|---|---|----|-----------|
| THEORY | | | | | | |
| 1 | ITB701 | Machine Learning | 3 | - | - | 3 |
| 2 | | Elective III | 3 | - | - | 3 |
| 3 | | Elective IV | 3 | - | - | 3 |
| 4 | | Open Elective I | 3 | - | - | 3 |
| Total Credits (Theory) | | | | | | 12 |
| PRACTICAL | | | | | | |
| 1 | ITBCQ1 | Colloquium* | - | - | - | - |
| 2 | ITBPJ2 | Project (Major) # | - | - | 12 | 6 |
| Total Credits (Practical) | | | | | | 6 |
| Total Credits | | | | | | 18 |

* The student will give presentation (Colloquium) on the summer/winter/ industrial training/Internship (4 – 6 weeks) that She/ He underwent during the vacation period after 4th, 5th or 6th semester.

The student will submit a synopsis for their Project at the beginning of the semester in a specified format which should be approved by the departmental committee. The student will also have to present the progress of their project through seminars and progress reports.

SEMESTER 8

| Sl. No. | Subject Code | Course Name | L | T | P | Credits |
|----------------------------------|--------------|--|---|---|----|-------------|
| THEORY | | | | | | |
| 1 | | Elective V | 3 | - | - | 3 |
| 2 | | Open Elective II | 3 | - | - | 3 |
| 3 | G8T01 | Constitution of India (Mandatory Course) | - | - | - | - |
| Total Credits (Theory) | | | | | | 16 |
| PRACTICAL | | | | | | |
| 1 | ITB811 | Communication Skills Lab | - | - | 3 | 1.5 |
| 2 | ITBPJ3 | Project (Major) ** | - | - | 20 | 10 |
| Total Credits (Practical) | | | | | | 11.5 |
| Total Credits | | | | | | 17.5 |

** The student will continue the project work carried over from the previous semester. The student will submit the final report/thesis of the project in the format specified by the School.

Total Credits = 42+116= 158

LIST OF ELECTIVE COURSES

| Subject code | Course Name | Credits | Lectures | Tutorials | Practical |
|--------------|--|---------|----------|-----------|-----------|
| ITBEL1 | Distributed Database | 3 | 3 | - | - |
| ITBEL2 | Mobile Computing (SWAYAM) | 3 | 3 | - | - |
| ITBEL3 | Cloud Computing (SWAYAM) | | | | |
| ITBEL4 | Advanced Computer Architecture | 3 | 3 | - | - |
| ITBEL5 | Management Information System and Knowledge Management | 3 | 3 | - | - |
| ITBEL6 | Statistical Modeling and Tools | 3 | 3 | - | - |
| ITBEL7 | Mobile Application Development | 3 | 3 | - | - |
| ITBEL8 | Network Protocols | 3 | 3 | - | - |
| ITBEL9 | XML and Web Services | 3 | 3 | - | - |
| ITBEL10 | Service Oriented Architecture | 3 | 3 | - | - |
| ITBEL11 | System Analysis and Design | 3 | 3 | - | - |
| ITBEL12 | Decision Support System | 3 | 3 | - | - |
| ITBEL13 | Advanced Java Technology | 3 | 3 | - | - |
| ITBEL14 | .Net Technology | 3 | 3 | - | - |
| ITBEL15 | Natural Language Processing | 3 | 3 | - | - |
| ITBEL16 | Distributed Computing | 3 | 3 | - | - |
| ITBEL17 | Multimedia Technologies | 3 | 3 | - | - |
| ITBEL18 | Mobile Communications | 3 | 3 | - | - |
| ITBEL19 | Cryptography and Information Security | | | | |
| ITBEL20 | Software Quality Assurance | 3 | 3 | - | - |
| ITBEL21 | Soft Computing | 3 | 3 | - | - |
| ITBEL22 | Blockchain Architecture & Design | 3 | 3 | - | - |
| ITBEL23 | Advanced Database Systems | 3 | 3 | - | - |
| EC8T01 | Digital Image Processing | 3 | 3 | - | - |

LIST OF OPEN ELECTIVE COURSES

| Subject code | Course Name | Credits | Lectures | Tutorials | Practical |
|--------------|--------------------------------|---------|----------|-----------|-----------|
| ITBOE1 | Artificial Intelligence | 3 | 3 | - | - |
| ITBOE2 | Internet-of-Things | 3 | 3 | - | - |
| ITBOE3 | Big Data Analytics | 3 | 3 | - | - |
| EC7EL1 | Embedded Systems | 3 | 3 | - | - |
| ITBOE4 | E-Business (SWAYAM) | 3 | 3 | - | - |
| ITBOE5 | Data Mining & Data Warehousing | 3 | 3 | - | - |

Note: The following courses will be offered through SWAYAM.

1. E-Business
2. Mobile Computing
3. Cloud Computing

CONTACT US

ADMINISTRATIVE OFFICE:

NAGALAND UNIVERSITY RESIDENTIAL CAMPUS,
LANDMARK COLONY, DIMAPUR – 797112, NAGALAND

ACADEMIC COMPLEX:

SCHOOL OF ENGINEERING & TECHNOLOGY, NAGALAND
UNIVERSITY, D.C COURT JUNCTION, DIMAPUR – 797112, NAGALAND

Admission Convenor: Ms. Ayangla Jamir, 9436831373

Admission Committee Member:

Mr. Shanchamo Yanthan: 8731826326

Dr. Imlitoshi Jamir: 7005575651

Ms. Imesangla Ao: 9615826725

Mr. Ramesh Singh: 7906748596

Email:

set.admin@nagalanduniversity.ac.in

Website:

www.nagalanduniversity.ac.in

Online Application Link:

<http://www.admission.nagalanduniversity.ac.in/>

IMPORTANT DATES AND APPLICATION FEES

| | |
|---|---|
| Starting of Online Admission form | 15 th July |
| Last date of Online Admission form submission | 21 st August |
| Declaration of selected list (List of selected candidates shall be notified on university website) | 26 th August, 2020 |
| Date of admission | 1 st August & 2 nd September 2020 |
| Starting of Classes | 3 rd September 2020 |
| Application Fees | 250 (GEN/OBC) 200 (SC/ST) |

PHOTO GALLERY

DEPARTMENT OF AGRICULTURAL ENGINEERING AND TECHNOLOGY



DEPARTMENT OF BIO TECHNOLOGY



DEPARTMENT OF COMPUTER SCIENCE & ENGINEERING



DEPARTMENT OF ELECTRONICS & COMMUNICATION ENGINEERING



DEPARTMENT OF INFORMATION TECHNOLOGY



COMMON POOL ACTIVITIES



SCHOOL ACTIVITIES



