

DIBRUGARH UNIVERSITY

REGULATIONS FOR 4 YEAR DEGREE COURSE IN ENGINEERING (CREDIT BASED ASSESSMENT SYSTEM)

**(FOR JORHAT ENGINEERING COLLEGE AND JORHAT
INSTITUTE OF SCIENCE & TECHNOLOGY)**

(WITH EFFECT FROM AUGUST 2016)

1.0 PRELIMINARY DEFINITIONS AND NOMENCLATURE

In this Regulation, unless the context otherwise specifies:

I. “Programme” means Degree Programme i.e. Bachelor of Engineering (B.E) Degree Programme.

II. “Discipline” means Branch or Specialization of B.E. Degree Programme, like Civil Engineering, Electrical Engineering etc.

III. “Course” means a Theory or Practical subject that is normally studied in a semester, like Mathematics, Physics, Engineering Graphics, etc.

2.0 ADMISSION TO BACHELOR OF ENGINEERING (B.E) PROGRAMME

2.1 The number of seats in each discipline of Bachelor of Engineering (B.E) programme will be decided by the Govt. of Assam with approval from AICTE.

2.2 The minimum qualification for entry into B.E programme is as follows:

Candidates who have passed with physics, Chemistry and Mathematics in the 2nd year (10+2) Higher Secondary (Science) Examination conducted by the AHSEC or CBSE or ISC or an examination recognized as equivalent by the Dibrugarh University, and have secured the minimum marks required to pass in each of the above mentioned subjects, and also have secured at least 50% marks in the aggregate of these subjects in a single sitting, will be eligible for admission to the First Semester of the 4 Year Degree Course in Engineering.

Selection for admission shall be through Admission Test in Physics, Chemistry and Mathematics conducted at the Assam State Level by an appropriate authority. The merit ranking in the Admission Test shall be the basis for admission into the course. Admission of candidates belonging to the reserved categories shall also be on the basis of their merit rank in the respective categories in the Admission Test.

Candidates must also fulfill the conditions regarding age as per rules formulated by the Govt. from time to time. Relaxation for Scheduled Caste/Schedule Tribes/Other Backward Classes (including MOBC) candidates shall be as per existing rules of the Government of Assam.

Upper age limit may be relaxed by the Government of Assam in case of B.Sc. passed candidates.

2.3 Candidates, including those sponsored by the Govt. of Assam, who have passed the Diploma Examination in a discipline of Engineering study conducted by the State Council of Technical Education, Assam securing a minimum of 45% marks in aggregate shall be eligible for admission into 3rd Semester of the respective discipline of the programme in conformity with the recommendations of the AICTE after qualifying in an Admission Test (hereafter called as Lateral Admission Test) conducted for the purpose by an appropriate authority. The merit ranking in the lateral admission test shall be the basis for admission. Number of seats to be offered to such

candidates shall be decided by the Govt. of Assam from time to time subject to a maximum of 10% of the sanctioned intake at the 1st Semester level for each discipline of study as specified by the AICTE. These candidates will henceforth be referred to as *Lateral Entry Students*.

3.0 STRUCTURE OF BACHELOR OF ENGINEERING (B.E) PROGRAMME

3.1 Bachelor of engineering programme (henceforth to be referred to as B.E. programme) comprises 4 academic years (3 academic years for lateral entry students) and each academic year shall consist of 2 semesters. There shall be 8 semesters (6 semesters for lateral entry students) in total in the B.E. programme.

3.2 Each semester shall approximately consist of 15 weeks of teaching and 5 weeks of academic and other formalities including the end-semester examinations.

3.3 B.E. Programme shall have a curriculum with syllabi consisting of theory and practical courses that shall be categorized as follows:

Humanities and Social Sciences (HS) courses include Language/soft skills, Humanities and Social Science, Economics, Accountancy and Management.

Basic Sciences (BS) courses include Mathematics, Physics, and Chemistry.

Engineering Sciences (ES) courses include Engineering Graphics, Basics of Electrical / Electronics / Mechanical / Computer Engineering, Engineering Mechanics, Workshop practices etc.

Professional Core (PC) courses include the core courses relevant to the chosen specialization/branch.

Professional elective (PE) courses include the elective courses relevant to the chosen specialization/branch

Open elective (OE) courses include the elective courses relevant to all specialization/branch

Employability Enhancement Courses (EEC) includes Project Work, Seminar, and Industrial/Practical Training.

3.4 Every discipline of the B. E. programme shall have curriculum and course contents (syllabi) proposed by the respective Boards of Studies and approved by the appropriate bodies of the affiliating University.

3.5 Credits shall be assigned to the courses based on the following general pattern:

One credit for each lecture (L) period of one hour duration;

One credit for each tutorial (T) period of one hour duration;

One credit for two laboratory/practical/seminar (P) hours;

One credit for one project (P) hours;

Theory based courses or theory courses are those with 'L' & 'T' or 'L' alone.

A course with only "T" is NOT permissible.

Practical or project Courses are those with 'P' alone.

3.6 The curriculum of any discipline of the B.E. programme shall be designed to have 188 credits for the award of the B.E. degree. For lateral entry students, the number of credits to be earned for the award of the B.E. degree will be counted from third semester onward assuming that they have earned the credits of the first year of the B.E. programme (25 in 1st semester and 25 in 2nd semester totalling 50 credits) by virtue of their diploma. Thus, lateral entry students need to earn 138 credits for award of the B.E. degree.

3.7 The medium of instruction, examination and project reports will be in English.

4.0 CATEGORY OF COURSES

4.1 Core Courses: There shall be a number of Core Courses in every semester for each discipline. These are the courses which should compulsorily be studied by a candidate as a core requirement to complete the requirements of a degree in a said discipline of study.

4.2 Elective Courses: Elective course is a course which can be chosen from a pool of papers. It may be:

- Supportive to the discipline of study
- Providing an extended scope
- Enabling an exposure to some other discipline/domain

An elective may be "Discipline centric" called "Department Elective." (or) may be chosen from an unrelated discipline called an "Open Elective."

4.3 Mandatory Audit courses: The mandatory audit courses are offered in 1st and 2nd semesters of the B.E programme. Students must opt for mandatory audit courses, but courses taken for audit shall not earn any credit towards the degree requirement. Lateral entry students must select mandatory audit courses in 3rd and 4th semesters.

4.4 Non Mandatory Audit courses may be offered in any semester. Students may opt for these audit courses; however courses taken for audit shall not earn any credit towards the degree requirement

5.0 ATTENDANCE

5.1 Attendance is the physical presence of a student in a class / laboratory / field work. It is a well-observed fact that the students who score good grades are those who attend the classes / laboratories / field work, regularly. Therefore, the students must strive to attend all the classes

without fail. Each faculty member must keep attendance records of the courses he/she has offered in a semester.

5.2 Students having attendance equal to or more than 60% shall be categorised as a collegiate students and others having attendance less than 60% shall be marked as dis-collegiate students.

5.3 A student must maintain an attendance record of at least 60% in individual courses. Leave of absence due to medical reasons, on-duty, extra-curricular / extramural activities, permitted assignments such as job interviews, unforeseen emergencies etc. are not included within this 60% mandatory attendance. A dis-collegiate student, (i.e. one having attendance less than 60%) in any course, will not be allowed to fill up university form for end semester examination and thus, he/she will not be considered eligible to appear at the end semester examination for that semester.

5.4 It is mandatory to complete a course by taking for as many contact hours as are mentioned in the syllabus for that course. This is applicable to theory based courses as well as practical courses.

5.5 It is the responsibility of each and every student to keep track / monitor his / her percentage of attendance for each course and ensure that he / she satisfies the attendance norms prescribed by the university. If a student finds any discrepancy / error in the attendance status, he /she should immediately bring it to the attention of the concerned faculty member and seek redressal.

6.0 ASSESSMENT PROCEDURE

6.0 Performance of students in each course offered in a semester is evaluated on the basis of the following:

- a. In-semester continuous assessment (Internal Assessment or IA)
- b. End semester examination for theory/practical components

6.2 Distribution of marks for theory courses and practical courses

Examination	Marks distribution for theory courses		Marks distribution for practical/ project courses		Marks distribution for project courses		Marks distribution for IA only courses (e.g. General viva, General seminar etc.)**	
	End semester examination	Internal Assessment	End semester examination	Internal Assessment	End semester examination	Internal Assessment	End semester examination	Internal Assessment
1 st to 8 th Semester	60%	40%	80%	20%	40%	60%	---	100%

** General viva, General seminar, Engineering Workshop-I and Engineering

Workshop-II are termed as IA-only courses with a 'P' component alone.

6.3 The distribution of IA marks for theory courses are as follows:

- i. 10% of the IA marks shall be awarded for attendance in classes. However, leave mentioned in clause 5.3 will not be considered for awarding IA marks.
- ii. 90% of the IA marks shall be awarded based on class assessment through regular observation in class performance and class tests/viva/quizzes.

6.4 40% of the IA marks shall be awarded based on performance in the internal assessment examination conducted by college/institute to be held approximately at the mid of an on-going semester. The distribution of IA marks for practical courses are as follows:

- i. 20% of the IA marks shall be awarded for attendance in laboratory classes. However, leave mentioned in clause 5.3 will not be considered for awarding IA marks.
- ii. 80% of the IA marks shall be awarded based on performance in laboratory experiments, submission of records of work done and viva voce (if any).

6.5 The distribution of IA for IA only courses (e.g. Seminar etc.) are as follows:

- i. 100% of evaluation based on viva voce or seminar conducted.

6.6 The distribution of IA for IA only practical courses

- i. 100% of the IA marks shall be awarded based on performance in laboratory experiments/submission of records of work done and viva voce/quiz.

6.7 The distribution of IA marks for project courses are as follows:

- i. 25% of the IA marks shall be awarded for regular contact with supervisor. The supervisor needs to maintain attendance records and progress at each of this contact.
- ii. 75% of the IA marks shall be awarded based on laboratory/field/numerical study conducted, preparation of project report, submission of project report and viva voce by supervisor (if any).

6.8 The end semester examination conducted by Dibrugarh University for theory courses shall have assessment from following perspective:

- i. Evaluation with respect to knowledge, understanding, skill and application in theory examination.

6.9 The end semester examination conducted by Dibrugarh University for practical/project courses shall have assessment from following perspective:

- i. Evaluation with respect to laboratory experiments (if any) performed.
- ii. Evaluation with respect to viva voce conducted.

6.10 In order to pass a course, a candidate shall have to obtain minimum Grade as follows. There shall be no minimum pass mark for IA as well as for End Semester Examination attached to a theory/practical/project courses.

Semester	Aggregate of Marks Obtained in End Semester Examination and Marks Obtained in IA of a Theory course	Aggregate of Marks Obtained in End Semester Examination and Marks Obtained in IA of Practical course	Marks Obtained in IA of IA-only Subject (e.g. General Viva, Seminar etc.)	Aggregate of Marks Obtained in Project Viva and Marks Obtained in IA of Project courses
1st to 8th Semester	40% Grade B i.e. GP = 5	40% Grade B i.e. GP = 5	40% Grade B i.e. GP = 5	40% Grade B i.e. GP = 5

6.11 The College authority shall declare the marks of IA attached to any course within one week from the cut-off date of that semester. However, for project courses it can be done within one week before the date of viva voce examination.

7.0 COURSEWISE GRADING OF STUDENTS

7.1 Letter Grades and Grade points

Based on the aggregate of marks obtained through internal assessment and end semester examination, each student is awarded a final letter grade at the end of the semester, in each course. The letter grades and the corresponding grade points are as follows:

Percentage of Marks obtained in a course i.e. (IA + Theory End Semester Examination) OR (IA + Practical End Semester Examination) OR Marks Obtained in IA only course	Letter Grade	Grade Point	Description of Performance	Result
95-100	O	10	Outstanding	PASS
85-94	E	9	Excellent	
75-84	A+	8	Very Good	
60-74	A	7	Good	
50-59	B+	6	Average	
40-49	B	5	Below Average	
0 -39	F	0	Failed	FAIL
	I		Incomplete	INCOMPLETE

**** If marks obtained in a course is fractional, then it shall be rounded off to the next higher integer.**

7.2 For noncredit courses also, one of the letter grades mentioned in Clause 7.1 shall be assigned, but this will not be counted for the computation of SGPA/CGPA.

7.3 A student shall be considered to have successfully completed a course and earned the credits if he / she secured a letter grade other than F or I in that course. *A letter grade of F or I in any course implies a failure in that course.*

7.4 No course, once successfully completed, shall be allowed to be repeated.

7.5 A student who obtained an F or an I grade in any course may opt for IA improvement. For students opting for IA improvement, the IA evaluation shall be done as follows:

- (i) 10% of IA marks, on the basis of class attendance, shall be as obtained already (i.e. previous marks)
- (ii) Home assignments and class tests: 90% of IA marks

8.0 END SEMESTER EXAMINATIONS AND PROMOTION TO NEXT SEMESTER

8.1 The End Semester Examination shall be divided into two groups: Odd and Even, i.e.

Odd Semesters: 1st, 3rd, 5th and 7th.

Even Semesters: 2nd, 4th, 6th and 8th.

8.2 The end semester examination at the end of all the Odd-semester classes (i.e. 1st, 3rd, 5th and 7th) classes shall be termed as Regular Odd-End-semester Examinations. The end semester examination at the end of all the even semester classes (i.e. 2nd, 4th, 6th and 8th) shall be termed as Regular Even-End-semester Examinations.

8.3 A student who failed in one or more courses in a Regular End-semester examination, and/or remained absent in a Regular end-semester examination, is termed as a compartmental candidate. Only regular candidates are allowed to appear in a Regular Odd or Regular Even end-semester examinations.

Compartmental examination for Odd semesters shall be held after Regular even end-semester examinations. Compartmental examinations for even semesters excluding 8th Semester B.E. Compartmental Examination shall be held after Regular Odd end-semester examinations. Keeping in view of placement requirement of outgoing students, the 8th Semester B.E. Compartmental examination shall be held immediately after 8th Semester B.E. Regular end-semester examination results are declared. Compartmental candidates can appear in compartmental examinations only. A candidate on payment of fees prescribed by the University may be admitted to end semester examination subject to the following condition :

If he/she has attended the regular course of study prescribed for that examination and maintained a minimum attendance as mentioned in Clause 5.2.

8.4 At the time of applying for permission to sit for an end-semester examination, a student must produce a certificate from the Principal of the concerned college, that he/she has satisfactorily completed the course work of the semester and has fulfilled the conditions as stated in Clause 5.2.

8.5 A student, who obtains an F or an I Grade in any course, and not debarred to appear in the

succeeding examinations due to any disciplinary action, shall be eligible to sit in the next theory/practical/ both theory and practical/ Viva-voce Compartmental examination of such arrear subjects. Such students shall also be permitted to improve their marks obtained in IA part of such 'Incomplete' or 'Not Passed' subjects. A student must apply to the Head of the concerned department, seeking permission for improvement of IA. The HOD should intimate such a student about concerned teacher of the course in which IA improvement is sought. The HODs of concerned branches will keep records of each component of IA (i.e. marks from class attendance + marks from class performance, class test + marks from Internal Assessment Examination) for each student.

8.6 A student shall be declared to have passed an end-semester examination of the University provided he/she secures at least grade B in each of the courses of that semester as per provision in Clause 7.1.

8.7 A student shall be declared to have a 'PASS' in a semester provided he/she secures B or higher grade in each of the courses in that semester. If a student obtains an 'F' or 'I' grade in any of the courses of a semester, he/she shall be declared as 'compartmental' in that semester. A student appearing in a regular even or regular odd end-semester examination shall be permitted to take admission in next higher semester courses carrying all the 'NOT PASSED' (i.e. courses where F or I Grade was obtained) courses of the preceding semesters.

8.8 A student not allowed to fill up university forms for end semester examinations of a particular as per Clause 5.2, shall not be allowed to take admission in next higher semester course. He/she has to repeat that semester to fulfil the attendance requirement as mentioned in Clause 5.2.

8.9 If, in a semester (seventh or eighth), a student fails to complete and submit the project work within the allotted time period, he/she may be allowed to appear at the end semester examination for that semester. His/her grade in the project course will be assigned as 'I'. The student will be allowed to complete and present the project work in the forthcoming compartmental examination of that semester. So long as the student cannot complete and submit the project, the grade assigned will be 'I'.

9.0 COMPUTATION OF SEMESTER GRADE POINT AVERAGE (SGPA) AND CUMULATIVE GRADE POINT AVERAGE (CGPA)

9.1 SGPA (Semester Grade Point Average) will be computed by the following formula:

$$SGPA = \frac{\sum_{i=1}^n C_i (GP)_i}{\sum_{i=1}^n C_i}$$

Where C_i = credit for the i^{th} course, $(GP)_i$ = grade point obtained in the i^{th} course (Refer Clause 5.1), n = total number of courses taken in that semester, including those in which student has secured F grade.

9.2 For a student whose status is 'compartmental' in a semester (as per clause 8.8), his/her SGPA will not be computed for that semester.

9.3 The CGPA (Cumulative Grade Point Average) are calculated for all courses from 3rd Semester onwards.

9.4 CGPA (Cumulative Grade Point Average) will be computed by the following formula:

$$\text{CGPA} = \frac{\sum_{i=3}^r S_i \times (\text{SGPA})_i}{\sum_{i=3}^r S_i}$$

Where S_i = Sum of credits in the i^{th} semester, $(\text{SGPA})_i$ = Semester Grade Point Average in the i^{th} semester, r = number of semesters and the sum is for all the semester under consideration (i.e. credit earned 3rd Semester onwards)

9.5 For computation of CGPA of the n -th semester (where n is an integer such that $3 \leq n \leq 8$), a student must not have 'compartmental' status in any of the semesters from 3 to n .

9.6 The SGPA and CGPA shall be rounded off to 2 decimal points and reported in the Grade Card.

9.7 The CGPA earned by a candidate may be converted to equivalent percentage of marks by multiplying the CGPA by 10 (ten).

10.0 GRADE CARD

10.1 The grade card, issued by the office of the Controller of Examinations, to each student, after the announcement of the results will contain the following:

- a. The credits for each course for that semester.
- b. The letter grade obtained in each course
- c. The total number of credits earned by the student up to the end of that semester in each of the course categories
- d. The Cumulative Grade Point Average (CGPA) of all the courses taken from the 3rd semester onwards for regular students as well as for lateral entry students.

11.0 REQUIREMENTS FOR OBTAINING BACHELOR OF ENGINEERING DEGREE

11.1 A candidate, on passing all the examinations of all the courses of 1st, 2nd, 3rd, 4th, 5th, 6th, 7th and 8th semesters within 8 years after admission (under Clause 2.2) into the 1st semester of the programme, shall be eligible for the Degree of Bachelor of Engineering of Dibrugarh University in the relevant discipline of study. A minimum of 138 grade points, counted from 3rd (third) semester up to 8th (eighth) semester, should be earned by a candidate to attain eligibility for the Degree of Bachelor of Engineering of Dibrugarh University in the relevant discipline of study.

11.2 A candidate, on passing all the examinations of all the courses of 3rd, 4th, 5th, 6th, 7th and 8th semesters within 6 years after lateral admission (under Clause 2.3 ?) into the third Semester of

the programme, shall be eligible for the Degree of Bachelor of Engineering of Dibrugarh University in the relevant discipline of study. A minimum of 138 grade points, counted from 3rd(third) semester up to 8th(eighth) semester, should be earned by a candidate to attain eligibility for the Degree of Bachelor of Engineering of Dibrugarh University in the relevant discipline of study.

11.3A candidate who is eligible for award of the Degree of Bachelor of Engineering of Dibrugarh University as per clause 11.1, will be awarded class as follows:

CGPA at the end of eighth semester	Description of performance	Class
9.50-10.00	Outstanding	First Class
8.50-9.49	Excellent	
7.50-8.49	Very Good	
6.00-7.49	Good	
5.00 – 5.99	Average	Second Class
4.00 – 4.99	Below Average	
0 – 3.99	-----	Failed

11.4A candidate must PASS all the semester examinations of the course (end-semester examinations as well as compartmental examinations) within consecutive 8 (Eight) academic years from his/her date of admission into the B.E. programme, failing which he/she shall not be eligible to continue the B.E. programme. Lateral entry students must PASS all the semester examinations of the course (end-semester examinations as well as compartmental examinations) within consecutive 6 (Six) academic years from his/her date of admission into the B.E. programme, failing which he/she shall not be eligible to continue the B.E. programme. However, under very special circumstances, the Vice-Chancellor of the University, on recommendations of the Principal of the concerned affiliated college, may extend the period for one more year in case of a candidate who fails to PASS courses of all the semesters within the stipulated time period.

11.5If a candidate passes all courses of the 8th semester examination (end-semester or compartmental) but his/her CGPA cannot be computed as per clause 9.5, then his/her result for eighth semester will remain 'withheld'.
