

REGULATIONS

**B. TECH. DEGREE COURSE
(2018 SCHEME)**

**UNIVERSITY OF KERALA
THIRUVANANTHAPURAM**

B. TECH. DEGREE COURSE – 2018 SCHEME

REGULATIONS

1. Conditions for Admission

Candidates for admission to the B. Tech degree course shall be required to have passed the Higher Secondary Examination, Kerala or 12th Standard V.H.S.E., C.B.S.E., I.S.C. or any examination accepted by the university as equivalent thereto obtaining not less than 50% in Mathematics and 50% in Mathematics, Physics and Chemistry/ Bio- technology/ Computer Science/ Biology put together, or a diploma in Engineering awarded by the Board of Technical Education, Kerala or an examination recognized as equivalent thereto after undergoing an institutional course of at least three years securing a minimum of 50 % marks in the final diploma examination subject to the usual concessions allowed for backward classes and other communities as specified from time to time.

Lateral Entry Scheme is intended to admit meritorious Diploma holders to the Second Year/ Third Semester of the B. Tech courses to acquire a Degree in Engineering. Candidates with diploma in Engineering as given in the above paragraph are eligible for admission to the B. Tech degree course through Lateral entry scheme to the branch of Engineering as per the equivalency list prepared by the Director of Technical Education.

2. Duration of the course

- i) The course for the B. Tech Degree shall extend over a period of four academic years comprising of eight semesters. The first and second semester shall be combined and each semester from third semester onwards shall cover the groups of subjects as given in the curriculum and scheme of examination.
- ii) Each semester shall ordinarily comprise of not less than 400 working periods each of one hour duration.
- iii) A student who could not complete the programme and pass all the examinations within six (6) years since first admission to the B. Tech programme will not be allowed to continue and he/she has to quit the programme. However he/she can be readmitted to the first year of the programme if the student satisfies the eligibility norms applicable to the regular candidates prevailing at the time of readmission.

3. Eligibility for the Degree

Candidates for admission to the degree of Bachelor of Technology shall be required to have undergone the prescribed course of study in an institution maintained by or affiliated to the University of Kerala for a period of not less than four academic years and to have passed all the examinations specified in the scheme of study.

4. B.Tech Programme

Sl No	Knowledge Segments	Credits
1.	Basic Sciences	8
2.	Mathematics	16
3.	Humanities	6
4.	Basic Engineering	29
5.	Professional Engineering	90
6.	Electives	15
7.	Seminar	3
8	Comprehensive Viva	3
9.	Design Project	3
10	Project	6
11	Total Academic Credits	179
	Students Activities	2
12	Total Credits for B.Tech Degree	181

5. Subjects of Study

The subjects of study shall be in accordance with the scheme and syllabi prescribed.

6. Evaluation

Candidates in each semester will be evaluated both by continuous assessment and end semester University examination. The individual maximum marks allotted for continuous assessment and University examination for each subject is as prescribed by the scheme of study.

6.1 Continuous Assessment (CA)

The marks awarded for the continuous assessment will be on the basis of the day-to-day work, periodic tests (minimum two in a semester) and assignments (minimum two). The faculty member concerned will do the continuous assessment for each semester. The CA marks for the individual subjects shall be computed by giving weightage to the following parameters unless otherwise specified in the syllabus:

Subject	Attendance	Tests	Assignments/ Class Work
Theory Subjects	20%	50%	30%
Drawing	20%	40%	40%
Practical	20%	40%	40%
Project Work	a) Work assessed by Guide – 50% b) Assessed by a three member committee out of which one member is the guide – 50%		

The CA marks for the attendance (20%) for each theory, practical and drawing shall be awarded in full, only if the candidate has secured 90% attendance or above in the subject. If a student has attendance for a subject below 90%, reduction in the marks for the attendance shall be made proportionally. The CA marks obtained by the student for all subjects in a semester is to be published at least 5 days before the commencement of the University examinations. Anomalies if any may be scrutinized by the department committee. The final CA marks endorsed by the respective students, teachers, senior advisor of the batch. The marks shall be forwarded to the University by the Head of the department and Principal within the stipulated time.

5.2. End Semester University Examinations

- i) There will be University examinations at the end of the first academic year and at the end of every semester from third semester onwards in subjects as prescribed under the respective scheme of examinations. Semester classes shall be completed at least ten working days before the commencement of the University examination.
- ii) The examination will be held for all the semesters twice in a year – April/May session and October/November session.
- iii) A student will be permitted to appear for the university examination only if he/she satisfies the following requirements:
 - a) The student shall be physically present in at least 50% of total working periods for each subject.
 - b)
 1. A student must secure not less than 75% attendance, in the total number of working periods including duty leave sanctioned by the institution and shall be physically present for a minimum of 60% of the total working periods.
 2. Or the student gets condoned by the University as per clause 5.2.iii(c)&(d).
 - c) He/she must earn a progress certificate from the Head of the institution of having satisfactorily completed the course of study in the semester as prescribed by these regulations.
 - d) It shall be open to the Vice-Chancellor to grant condonation for shortage of attendance on the recommendation of the Head of the institution in accordance with the following norms:
 1. The attendance including duty leaves sanctioned by the institution shall not be less than 60% of the total working periods.
 2. The shortage shall not be condoned more than twice during the entire course. The condonation for combined 1st and 2nd semesters will be reckoned as a single condonation for shortage of attendance.
 3. The condonation shall be granted subject to the rules and procedures prescribed by the university from time to time.

- 4 a) 75% of the total credit of S1,S2 should be obtained by the students before registering 5th semester.
- b) The students will be getting three chances to appear for each examination (first appearance plus two supplementary chances) to clear the above condition for promotion. As this is an academic prerequisite, no exemption should be granted in this case.
- c) 75% of the total credits from S1 to S4 should be obtained before registering the 7th semester.

Eligibility criteria for Registering for Higher Semester courses

Semester Credits	Allotted Credits	Cumulative	Minimum cumulative credits required to register for courses in higher semesters.
First & Second	42	42	Not insisted
Third	24	66	Not insisted
Fourth	24	90	31
Fifth	24	114	Not insisted
Sixth	24	138	67
Seventh	23	161	Not insisted
Eighth	20	181	

- v) A student who is not permitted to appear for the University examinations for a particular semester due to the shortage of attendance and not permitted condonation by the authorities for shortage of attendance shall repeat the semester at the earliest opportunity offered to him/her. This provision is allowed only once for a semester. However prior permission from the University should be obtained before readmitting the student to the respective semester
- vi) A student who does not register for the university examination of a particular semester will not be eligible to enroll for next higher semester.
- vii) The university will conduct examinations for all subjects (Theory, Drawing & Practical).
- viii) The scheme of valuation for theory/drawing subjects will be decided by the respective chief examiner based on the discussions with the additional examiners. Any discrepancy in question paper shall be reported to the Chairman of Board of Studies/ Controller of Examination and the recommendation received shall be incorporated in the scheme of valuation. The scheme of valuation shall be submitted along with the mark list to the Controller of Examinations.
- ix) For practical examinations, the Chairman, Board of examination will prepare the scheme of valuation as per the guidelines given in the syllabus for the practical subject and give necessary instruction to the examiners. The student shall produce the certified record of the work done in the laboratory during the examination.

6. Letter Grades

- i) For each subject in a semester, a letter grade (S, A⁺, A, B⁺, B, C⁺, C, D, E and F) will be awarded, based on the total marks obtained by the student in the University examination and Continuous assessment put together.
- ii) Letter grade corresponding to total marks (C.A marks+ University Exam mark) and the corresponding grade point in a ten-point scale is described below.

% of Total marks <i>(C.A marks + University Exam mark)</i>	Letter Grade	Grade Point (GP)	Remarks
90 % and above	S	10.0	
85 % and above but less than 90%	A ⁺	9.0	
80 % and above but less than 85%	A	8.5	
75 % and above but less than 80%	B ⁺	8.0	
70 % and above but less than 75%	B	7.5	
65 % and above but less than 70%	C ⁺	7.0	
60 % and above but less than 65%	C	6.5	
55 % and above but less than 60%	D	6.0	
50 % and above but less than 55%	E	5.5	
Below 50% (C.A + U.E) or below 40 % for U.E only	F	0	Failed

- iii) Letter grade 'F' will be awarded to the student for a subject if either his/her mark for the University examination is below 40 % or the total mark (C.A marks + University Exam mark) is below 50 %.
- iv) For subject with no university examination, Letter grade 'F' will be awarded if CA marks is below 50%.
- v) Both absolute mark and Grade will be indicated in the grade card.

7. Grade Point Average (GPA) and Cumulative Grade Point Average (CGPA)

- i) Grade point average is the semester wise average points obtained by the student in a 10-point scale. GPA for a particular semester is calculated as shown below:

$$\text{GPA} = \frac{\sum \text{Credit} \times \text{GP obtained for the subject}}{\sum \text{Credit for subject}}$$

- ii) Cumulative Grade point Average (CGPA) is the average grade points obtained by the student till the end of any particular semester. CGPA is calculated in a 10-point scale as shown below.

$$\text{CGPA} = \frac{\sum \text{Credits for semester} \times \text{GPA obtained for the semester}}{\sum \text{Credits for the semester}}$$

- iii) GPA and CGPA shall be rounded to two decimal points.
- iv) The Grade card issued to the students shall contain subject number and subject name, credits for the subject, absolute marks and letter grades obtained, and GPA for the semester.
- v) For all successful candidates, in the Grade card of VIII semester, in addition to the grade for the semester, the consolidated grade statement for lower semesters and CGPA shall be provided.

8. Minimum for a pass

- i) A candidate shall be declared to have passed a semester examination in full if he/she secures a GPA of 5.5 or above with 'E' grade or above for the all individual subjects in that semester.
- ii) A candidate shall be declared to have passed in an individual subject of a semester examination if he/she secures grade 'E' or above.

- 9.** A candidate who does not secure a full pass in a semester examination as per clause 8.(i) above will have to pass in all the subjects of the semester examination as per clause 8.(ii) above, before he is declared to have passed in that semester examination in full.

10. Improvement of Grades

- i) A candidate shall be allowed to re-appear for a maximum of two subjects of a semester examination in order to improve the marks and hence the grades already obtained subject to the following conditions:
 - a) The candidate shall be permitted to improve the examination only along with next available chance.
 - b) The candidate shall not be allowed to appear for an improvement examination for the subjects of the VIII semester.
 - c) The grades obtained by the candidate for each subject in the improvement chance he has appeared for or the already existing grades – whichever is better will be reckoned as the grades secured.
 - d) First & Second semester will be counted as a single chance and they can improve a maximum of three subjects.
- ii) A candidate shall be allowed to repeat the subjects in one or more semesters in order to better the CA marks obtained already, provided:
 - a) He/she shall repeat all the subjects in a particular semester.
 - b) This provision is allowed only once for a semester and that too at the earliest opportunity offered to him/her, along with the immediate succeeding batch.
 - c) A student enrolled for a higher semester is not permitted to repeat a lower semester.

- d) He/she shall not be allowed to better the CA marks obtained already in any semester if he has already passed that semester examination in full.
- e) The CA marks obtained by the repetition of the course work will be considered for all purposes
- iii) A candidate shall be allowed to withdraw from the whole examination of a semester in accordance with the rules for cancellation of examination of the University of Kerala.

10. Classification of Successful candidates

- i) A candidate who qualifies for the degree passing all the subjects of the eight semesters within five academic years (ten consecutive semesters after the commencement of the course of study) and secures not less than CGPA of 8 up to and including eighth semester shall be declared to have passed the B. Tech degree examination in FIRST CLASS WITH DISTINCTION.
- ii) A candidate who qualifies for the degree passing all the subjects of the eight semesters within five academic years (ten consecutive semesters after the commencement of his/her course of study) and secures less than CGPA of 8, but not less than CGPA of 6.5 up to and including eighth semester shall be declared to have passed the B. Tech degree examination in FIRST CLASS.
- iii) All other successful candidates shall be declared to have passed the B. Tech Degree examination in SECOND CLASS.
- iv)
 - a) Successful candidates who complete the examination in four academic years (Eight consecutive semesters) after the commencement of the course of study shall be ranked branch-wise on the basis of the CGPA of eight semesters put together.
 - b) In the case of a tie in the CGPA, the total absolute marks of the students who have got same CGPA shall be considered for finalising the rank.
 - c) Students who pass the examination in supplementary examination are also covered under this clause.
 - d) Students admitted through Lateral entry scheme shall not qualify for ranking.

11. Educational Tour

- i) The students may undertake one educational tour preferably after fourth semester of the course. There shall be at least two technical visits incorporated in the tour.
- ii) The tour may be conducted during the vacation / holidays taking not more than 5 working days, combined with the vacation / holidays if required. Total number of tour days shall not exceed 9 days.

- iii) The working days used for educational tour will be considered as working periods of a semester. For students not attending the tour, respective departments should take measures to record their attendance in college or arrange for alternate industrial visits during the same period.
- iv) Students shall include the report of the industrial/technical visits made during the educational tour in the industrial visit report to be submitted in the VIII semester for evaluation.

12. Revision of Regulations

The university may from time to time revise, amend or change the regulations, curriculum, scheme of examinations and syllabi. These changes unless specified otherwise, will have effect from the beginning of the academic year / semester following the notification of the University.
