

PONDICHERRY UNIVERSITY



BACHELOR OF TECHNOLOGY PROGRAMMES

(For University Departments)

REGULATIONS 2025-26

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1. Conditions for Admission:

- a) **Candidates for admission to the first semester of the 8 semester B.Tech. degree programme should be required to have passed:**

The Higher Secondary Examination of the (10+2) curriculum (Academic Stream) prescribed by the different State Boards/ Central Boards or any other examination equivalent there to with minimum of 45% marks (40% marks in case of candidates belonging to reserved category) in aggregate of subjects – Mathematics, Physics and any one of the following optional subjects: Chemistry / Biotechnology/ Computer Science / IT and equivalent/ Electronics/ Biology (Botany & Zoology) or an Examination equivalent to the Higher Secondary Level of any University or Authority recognized by the Executive Council of the Pondicherry University as equivalent thereto.

Admission will be based on the Common University Entrance Test (CUET-UG).

- b) **Candidates seeking admission through Lateral entry into second year (third semester) of the 8 semester B.Tech. degree programme are required to have passed:**

Minimum THREE years / TWO years (Lateral Entry) Diploma examination with at least 45% marks (40% marks in case of candidates belonging to reserved category) in ANY branch of Engineering and Technology.

OR

B.Sc. Degree from a recognized University as defined by UGC, with at least 45% marks (40% marks in case of candidates belonging to reserved category) and passed 10+2 examination with Mathematics and Physics as one of the subjects.

OR

Passed D.Voc. Stream in the same or allied sector.

(The University/college will offer suitable bridge courses such as Mathematics, Physics, Engineering drawing, etc., for the students coming from diverse backgrounds to level up their knowledge and skills to fulfill the pre-requisites for pursuing the programme in the corresponding discipline.

2. Age Limit:

As per prevailing AICTE norms.

3. Duration of the Programme:

The Bachelor of Technology degree programme shall extend over a period of 8 semesters spread over 4 academic years – two semesters constituting one academic year. The duration of each semester shall normally be 15 weeks excluding examinations.

4. Program Structure:

The medium of instruction is English.

A student admitted to the B.Tech. programme in a particular branch of engineering will earn the degree in that branch by fulfilling all the requirements prescribed in the regulations during the course of study.

The student is also permitted to opt for earning an **Honors degree in the same discipline of Engineering or a Minor degree** in another discipline of engineering in addition to the degree in his own discipline of engineering. The student will be allowed to exercise this option at the end of first year if he has passed all the subjects offered in the first year and has earned a CGPA of not less than 7.5. The students admitted through lateral entry can exercise this option at the end of third semester, based on the eligible GPA scored in the third semester examination.

The student opting for B.Tech. degree with **Honors or B.Tech. degree with Minor** is required to earn an additional 18-20 credits starting from the third semester. The students admitted in the second year through lateral entry and opting for Honors / Minor degree will earn the additional 18-20 credits starting from the fourth semester. The student will be allowed to exercise this option if he has passed all the subjects offered in the third semester and has earned a CGPA of not less than 7.5.

5. Eligibility for the award of B.Tech. Degree:

No candidate shall be eligible for the award of the degree of Bachelor of Technology, unless he/she has undergone the programme for a minimum of 8 semesters (4 academic years) / 6 semesters (3 academic years for Lateral Entry candidates) in the corresponding discipline of Engineering and has passed the prescribed examinations in all the semesters. Details regarding the possible exit for a B.Tech. student – in line with one of the goals of the National Education Policy (NEP) 2020 are provided in section 13.

6. Branches of Study:

Branch I - Computer Science & Engineering

Branch II – Electronics & Communication Engineering

Branch III - Environmental Engineering

Branch IV - Energy Science & Technology

Branch V – Materials Science and Technology

Branch VI –B.Tech (Computer Science and Business System)

or any other branch of Engineering programme as and when offered. The branch allocation shall be done at the time of admission of the candidate to the first semester.

7. Course Structure and Subjects of Study:

Definition of Credit:

1 Hour Lecture (L) per week	1 Credit
1 Hour Tutorial (T) per week	1 Credit
2 Hours Practical (P) per week	1 Credit

Range of Credits: The total credits for the four-year B. Tech. degree programme shall be in the range of 160 to 172 (Minor variation is allowed as per AICTE guidelines) – for all the branches of the B.Tech. programme. “Minor Degree or Honors will cumulatively require additional 18-20 credits in the specified area in addition to the credits essential for obtaining the Under Graduate Degree in Major Discipline”.

The subjects of study shall include theory, practical courses and project work/internships as given in the curriculum and shall be in accordance with the prescribed syllabus.

The curriculum of every programme will have courses that are categorized as follows:

- (i) Humanities, Social Sciences and Management Courses (HSM)
- (ii) Basic Science Courses (BSC)
- (iii) Engineering Science Courses (ESC)
- (iv) Professional Core Courses (PCC)
- (v) Professional Elective Courses (PEC)
- (vi) Open Elective Courses (OEC)
- (vii) Professional Activity Courses (PAC)
- (viii) Mandatory non-Credit Courses (MCC)

Each course will have either one or more of three components, namely Lecture (L), Tutorial (T) and Practice (P). Each course is assigned credits as detailed below:

- (i) Theory courses will carry either 3 or 4 credits - 3 credits for courses with 3 lecture periods per week and 4 credits for courses with 3 lecture periods and 1 tutorial period per week.
- (ii) All Elective courses including online courses will carry a maximum of 3 credits. The student can earn the credits allocated under the Open Elective Courses (OEC) by completing online courses offered in NPTEL anytime between third and seventh semester on prior approval of the courses by the respective faculty advisors & Head of the concerned Department. Credits earned through the NPTEL courses will be confined to 2 or 3 credits and subject to a maximum of 9 credits during the entire programme of study.
- (iii) Practical courses will normally carry either 1 or 1.5 credits – 1.5 credits for courses with 3 practice periods per week and 1 credit for courses with 2 practice periods per week.
- (iv) Out of the total credits required for successful completion of the degree, 14 to 22 credits can be assigned for Project work and/or Internship.
- (v) Mandatory non-credit courses carry zero credit.

8. Examinations:

The theory and practical examinations shall comprise of continuous internal assessment throughout the semester in all subjects as well as the End-Semester exams for all theory and practical subjects based on the university **academic** calendar. A detailed Exam Time Table shall be circulated at least 15 days before the start of exams. Question Papers shall be set based on BoS approved syllabus. All students who have a minimum of 75% attendance are eligible to attend the end-semester exams. Attendance percentage shall be calculated for each course to decide the eligibility of the candidate for writing the corresponding end-semester examination.

8.1. Evaluation Scheme

All Credit courses are evaluated for 100 marks comprising of Internal assessment and End-Semester Exams.

For Theory Course, the weightage of internal assessment is 40% and end semester examination is 60%

For Practical course, the weightage of internal assessment is 60% and end semester examination is 40%.

For Project, the weightage of internal assessment is 60% and end semester examination is 40%

8.2. Internal Assessment (Theory)

Total Internal Assessment mark for a theory course is 40 marks. The breakup is as follows:

Criteria	Maximum Marks
a) Internal Assessment Tests	30
b) Percentage of Attendance	5
c) Assignment(s)	5
Total	40

Marks for Attendance is as follows:

Below 75%	0
75% - 80%	1
81% - 85%	2
86% - 90%	3
91% - 95%	4
96% - 100%	5

The Head of the Department schedules the Internal Assessment tests for all courses. Faculty of the concerned course is to conduct the Internal Assessment tests for 1½ hours duration and evaluate the scripts. Faculties are also requested to preserve the answer sheets of Internal Assessment tests until the declaration of results by the University.

8.3. Internal Assessment (Practicals)

Faculty in-charge of Lab courses shall evaluate the practical course for 60 marks. The break up is as follows:

Criteria	Maximum Marks
a) Laboratory exercises and Record	30
c) Mid Semester exam (Average of 2 exams)	15
c) Internal Viva voce	5
d) Percentage of Attendance	10
Total	60

Marks for Attendance is as follows:

Below 75%	0
75% - 80%	2
81% - 85%	4
86% - 90%	6
91% - 95%	8
96% - 100%	10

8.4. Internal Assessment (Project)

The Project work carried out in the eighth semester shall be assessed as follows:

Criteria	Marks
a) Continuous assessment (by Project Guide)	25
b) Project Evaluation Committee	35
Total	60

8.5 Requirements for appearing for University Examinations

The respective Departments of Pondicherry University Schedules End-Semester exams for all theory and practical courses based on the University academic calendar.

A detailed Exam Time Table shall be displayed in the notice board by the concerned Head of the Department at least 15 days before the start of exams. Question Papers shall be set internally by the concerned faculty based on the BoS approved syllabus.

A student shall be permitted to appear for university examinations at the end of any semester only if he/she secures not less than 75% attendance (in each course of study) arrived at by taking into account the total number of hours conducted in the corresponding subject.

Condonation of attendance upto 10% on medical grounds is permissible provided prior information of sickness and medical certificate is *obtained from a medical officer not below the rank of Assistant Director and tendered to the Head of the Department for approval.*

8.6 End Semester Exam Evaluation Pattern

<u>Course</u>	Maximum marks
a) <u>Theory course</u> Sec A : 10 questions of 2 marks each Sec B : 4 out of 6 questions of 5 marks each Sec C : 2 questions (either/or type)of 10 marks each Questions should cover all units of syllabus	60 marks
b) <u>Practical course</u> (Based on Lab exercises/Record/ Practicals /Viva)	40 marks
c) <u>Internship /Project Work</u> (Based on Seminar/Project Work/Project report/Presentation and viva voce)	40 marks

8.7 Consolidation of Marks and Passing Minimum

The Academic Section of the University consolidates the Internal Assessment marks and End Semester Examination marks secured by the students.

A student shall be declared to have passed the examination in a subject of study only **if he/she secures not less than 40% marks in the end-semester examination and secures an overall aggregate of 40% (including internal assessment and end-semester examination marks).**

A student who has been declared "Fail" in a particular subject may re-appear for that subject during the subsequent semesters and secure pass marks.

8.8 Revaluation

There is a provision for revaluation of failed subjects provided the student fulfills the following norms for revaluation:

- a) Applications for revaluation should be submitted to the Head of the Department within 15 days from the date of declaration of results or 7 days from the date of receipt of grade sheet - whichever is earlier.
- b) The student should have attended all the internal assessments as well as all the end semester examinations for all the subjects.
- c) The student has not failed in more than two papers in the end semester examinations.
- d) The request for revaluation is made in the prescribed format.
- e) The revaluation application is duly recommended by the Head of the Department.
- f) Payment of the revaluation fee prescribed by the University.

8.9. Arrear Exams

A student who failed to secure 40% marks in aggregate is declared as "Fail" and he is eligible to take up a supplementary examination by registering to the said course in the following semester. All other students who failed due to shortage of attendance shall repeat the course.

8.10. Letter Grades and Calculation of CGPA

Total Marks Secured by a student in each course shall be converted into a letter grade. The following Table shows the seven letter grades, their corresponding meanings and the grade points used in the calculation of Cumulative Grade Point Average (CGPA).

Each course (Theory/Practical) is to be assigned 100 marks, irrespective of the number of credits, and the mapping of marks to grades may be done as per the following table:

Range of Marks	Assigned Grade	Grade Points
91-100	A ⁺	10
81-90	A	9

71-80	B ⁺	8
61-70	B	7
51-60	C ⁺	6
46-50	C	5
40-45	D	4
<40	F	0
Not Applicable	F ^R (Fail due to shortage of attendance and therefore, to repeat the course)	0

Note: -F- denotes failure in the course; - F^R - denotes absent / detained as per AICTE norms. After the results are declared, grade sheets will be issued to the students. The grade sheets will contain the following details:

- a) The Branch in which the student has studied.
- b) The list of courses enrolled during the semester and the grades scored in each.
- c) The Grade Point Average (GPA) for the semester and the Cumulative Grade Point Average (CGPA) of all enrolled subjects from the first semester onwards.

GPA is the ratio of the sum of the products of the number of credits (C) of courses registered in a semester and the corresponding Grade Point (GP) scored in those courses, and the sum of the number of credits of all the courses.

$$\text{GPA} = \frac{\sum(C \times \text{GP})}{\sum C}$$

CGPA will be calculated in a similar manner, considering all the courses enrolled from first semester till the current semester.

F^R grades are to be excluded from calculating GPA and CGPA.

The conversion of CGPA into percentage marks is as follows

$$\% \text{ Mark} = (\text{CGPA} - 0.5) \times 10$$

9. Procedure for completing the B.Tech. programme:

A student can join/rejoin the course of study of any semester only at the time of its normal commencement and only if he/she has satisfied the course requirements until the previous semester(s).

The entire B.Tech. programme should be completed within a maximum of 7 years (14 semesters) and six years (12 semesters) for students admitted under lateral entry.

10. Award of Class and Rank in B.Tech. degree:

- i) A student who satisfies the **programme** requirements for all semesters and who passes all the examinations prescribed for all the eight semesters (six semesters for lateral entry students) within a maximum period of 7 years (6 years for lateral entry students) reckoned from the commencement of the first semester to which the student was admitted shall be declared to have qualified for the award of B.Tech. degree.
- ii) A student who qualifies for the award of the B.Tech. degree passing in all subjects pertaining to the semesters 3 to 8 in his/her first appearance within 6 consecutive semesters (3 consecutive academic years) and in addition secures a CGPA of 8.50 and above for the semesters 3 to 8 shall be declared to have passed the examination in **FIRST CLASS with DISTINCTION**.
- iii) A student who qualifies for the award of the B.Tech. degree by passing in all subjects relating to semesters 3 to 8 within a maximum period of eight semesters after his/her commencement of study in the third semester and in addition secures CGPA not less than 6.5 shall be declared to have passed the examination in **FIRST CLASS**.
- iv) All other students who qualify for the award of B.Tech. degree shall be declared to have passed the examination in **SECOND CLASS**.
- v) For the Award of University ranks and Gold Medal for each branch of study, the CGPA secured from the 1st to 8th semester should be considered and it is mandatory that the student should have passed all the subjects from the 1st to 8th semester in the first attempt and in consecutive semesters. Rank certificates would be issued to the first ten students in each branch of study.

11. Provisions for Honors/Minor degree along with B.Tech. degree:

A student shall be given an option to earn either an Honors degree in the same discipline or Minor Degree in another Engineering discipline during his tenure of study as per the following.

1. B.Tech. with Honors Degree in the same Engineering discipline

- a. The student shall be given an option to earn Honors degree in the same discipline of engineering at the end of first year based on his academic performance in the first year.
- b. A student is eligible to exercise this option if he has passed all the subjects offered in the first year in the first attempt itself and has earned a CGPA of not less than 7.5.
- c. Honors degree in a particular discipline of engineering shall be offered for a batch of students if and only if a minimum of 10 eligible students opt for it.
- d. The student is required to earn an additional 18-20 credits (over and above the prescribed maximum credits in the curriculum) starting from the third semester onwards to become eligible for the award of Honors degree. 18-20 credits shall be earned by the student by completing 5 additional courses of 3/4 credits each, one in each of the 5 semesters starting from the third to seventh semester. The syllabus of these 5 courses are framed so as to cover advanced topics in that discipline of engineering.
- e. The students admitted in the second year through Lateral Entry Scheme will also be given a chance to opt for Honors degree. Eligibility to avail this option is CGPA of 7.5 and above with no arrears in the third Semester. This student will join the existing batch of students in the fourth semester and earn 16 credits by registering the prescribed courses offered up to the seventh semester. The respective BoS will decide on a suitable course in lieu of the course offered in the third semester to facilitate the student to earn the remaining 4 credits.
- f. A student is eligible to get the Honors degree only on completing the programme in 'First Class with Distinction' class.
- g. A student can exercise the option to withdraw from the Honors degree at any time after entry.
- h. Details about the courses completed and credits earned for Honors degree will appear only in the 'Eighth Semester Grade Sheet' and 'Consolidated Grade Sheet'. These details will be listed under the heading 'Credits Earned for Honors degree'. In the case of students who have either withdrawn from Honors degree or become ineligible for Honors degree by not securing 'First Class with Distinction', the credits earned for the courses registered and successfully completed for Honors degree will be listed under the heading 'Additional Credits Earned'.

- i. The CGPA will be calculated for all the courses credited by the students, inclusive of major and honors courses.
- j. Nomenclature of Honors Degree is 'B.Tech.(Honors) in XXX', where XXX is Discipline in which the student has enrolled.

2. B.Tech. with Minor degree in another Engineering discipline

- a) The student shall be given an option to earn a minor degree in another discipline of engineering of his choice at the end of first year based on his academic performance in the first year.
- b) A student is eligible to exercise this option if he has passed all the subjects offered in the first year in the first attempt itself and has earned a CGPA of not less than 7.5.
- c) Minor degree in a particular discipline of engineering shall be offered for a batch of students if and only if a minimum of 10 eligible students opt for it.
- d) The student is required to earn an additional 18-20 credits (over and above the prescribed maximum credits in the curriculum) starting from the third semester onwards to become eligible for the award of minor degree. 18-20 credits shall be earned by the student by completing 5 additional courses of 3/4 credits each, one in each of the 5 semesters starting from the third to seventh semester. The curriculum content of these 5 courses are framed in such a way that these courses will essentially cover the core minimum knowledge required to be fulfilled for award of degree in the discipline of engineering in which the student chooses to earn the minor degree.
- e) The students admitted in the second year through Lateral Entry Scheme will also be given a chance to opt for Minor degree. Students with a CGPA of 7.5 and with no arrears in the third semester are eligible to avail this option. The student will join the existing batch of students in the fourth semester and earn 16 credits by registering for prescribed courses offered up to seventh semester. The respective BoS will decide on a suitable course in lieu of the course offered in the third semester to facilitate the student to earn the remaining 4 credits.
- f) A student can exercise the option to withdraw from the Minor degree at any time after entry.
- g) Details about the courses completed and credits earned for Minor degree will appear only in the 'Eighth Semester Grade Sheet' and 'Consolidated Grade Sheet'. These details will be listed under the heading 'Credits Earned for Minor degree'. In the case of students who have withdrawn from Minor degree, the credits earned for the

courses registered and successfully completed for Minor degree will be listed under the heading 'Additional Credits Earned'.

- h) Nomenclature of Minor Degree is 'B.Tech. in XXX with Minor in YYY', where XXX is Discipline in which the student is enrolled and YYY is Discipline which the student has opted as Minor.
- i) The CGPA will be calculated for all the courses credited by the students inclusive of major and minor courses.

12. Provision for withdrawal:

Based on the recommendation of the Head of the Department, a student with valid reasons may be granted permission by the University to withdraw from writing the entire semester examination as one Unit. The withdrawal application shall be valid only if it is made earlier than the commencement of the last theory examination pertaining to that semester. Withdrawal shall be permitted only once during the entire course. A student who has withdrawn is also eligible to be awarded DISTINCTION provided he/she satisfies the other necessary conditions. But, they are not eligible to be awarded a rank.

13. Provisions for exit in B.Tech. course:

(For courses where AICTE specifies exit in the model curriculum)

The curriculum and the syllabus for all B.Tech. programmes have been planned in compliance with the NEP guidelines proposed by AICTE. Accordingly, students joining B.Tech. programmes shall have all the benefits NEP offers in terms of exercising the exit option during the course of study. Every B.Tech. programme governed under this school board shall adopt the NEP guidelines, as and when proposed/amended by AICTE, and the following scheme will be applied for all such B.Tech. programmes specified by AICTE.

NEP 2020 suggests that a student can exercise exits at multiple stages of the course of study. As per AICTE norms, a student can have two possible exits before the completion of the Full Engineering degree and may get a UG Diploma /Certificate or B.Sc. (Engg.) degree in the relevant discipline if he/she fulfils the following conditions: (Subject to change as per AICTE guidelines)

1. UG Diploma/Certificate in the relevant branch of study

A student should be able to get a UG Diploma if he/she completes:

- a. 50% of the credits for B.Tech. (80-85 credits)
- b. 50% of the program core courses

- c. Students exiting the program after earning 50% credit requirements will be awarded a UG Diploma provided they secure an additional 6 credits through summer internships/apprenticeship of 2 months duration.
- d. Students admitted through lateral entry cannot exercise the exit option as he/she will not be able to meet out the 50% Credits for B.Tech. degree.

2. **B.Sc. (Engg.) in the relevant branch of study**

A student should be able to get a B.Sc. (Engg.) degree if he/she completes:

- (i) 75% of the credits for B.Tech. (minimum 120 credits) and at least 3 years in the program.
- (ii) 100% of the core program courses.
- (iii) Students exiting the program after earning 75% credit requirements will be awarded a B.Sc. (Engg.) provided they secure an additional 6 credits through 2 summer internships/apprenticeship for 2 months each.
- (iv) With B.Sc. (Engg.) degree, the student is eligible for entry into programs which take B.Sc. (Engg.) degree as eligibility criteria.

3. **Award of Class in B.Sc. (Engg.) degree**

A student who satisfies the course requirements for all 6 semesters and who passes all the examinations within a maximum period of 6 years (5 years for lateral entry students) reckoned from the commencement of the first semester to which the student was admitted shall be declared to have qualified for the award of B.Sc. degree in the relevant discipline.

- i) A student who qualifies for the award of the B.Sc. (Engg.) degree passing in all subjects pertaining to semesters the 3 to 6 in his/her first appearance within 4 consecutive semesters (2 academic years) and in addition secures a CGPA of 8.50 and above for the semesters 3 to 6 shall be declared to have passed the examination in **FIRST CLASS with DISTINCTION**.
- ii) A student who qualifies for the award of the B.Sc. (Engg.) degree by passing in all subjects relating to semesters 3 to 6 within a maximum period of six semesters after his/her commencement of study in the third semester and in addition secures CGPA not less than 6.5 shall declared to have passed the examination in **FIRST CLASS**.
- iii) All other students who qualify for the award of B.Sc. degree shall be declared to have passed the examination in **SECOND CLASS**.

4. Re-entry to complete the program

A student exiting with UG Diploma/Certificate should be entitled to re-enrol in the programme of the same Engineering discipline at the fifth semester.

A student exiting with B.Sc. (Engg.) should be entitled to re-enrol in the programme of the same Engineering discipline at the seventh semester. Only students admitted to the B.Tech. programme and exercised an exit option are eligible for readmission to the B.Tech. programme under the same discipline. It is suggested that all credits will be transferred, if the student enrolls back within a limited period (3 years) of exiting. In case a student enrolls after that, then the decision on the transfer of credits should be based on the changes in the curriculum the student studied. A student after exit may rejoin the course only at the commencement of the semester at which he/she discontinued, provided he/she pays the prescribed fees to the University. The total period of completion of the B.Tech. course reckoned from the commencement of the first semester to which the student was admitted shall not in any case exceed 7 years, including of the period of discontinuance.

5. Completion Possibility in other Institutions

A student can earn UG Diploma /Certificate or B.Sc. (Engg.) in one institution (Engineering) and complete the degree program in another institution (same Engineering discipline only).

(Note: If these exit options are accepted for multiple B.Tech. programs, it is suggested that AICTE actively communicate these to the industry and other bodies, so they recognize these and accept them as bona-fide credentials for the purposes of recruitment and/or eligibility for admission to programs, appearing in competitive examinations, etc.)

14. Revision of Regulations and Curriculum:

The University may from time-to-time revise, amend or change the regulations of curriculum and syllabus as and when found necessary.