

Shivaji University, Kolhapur

DEPARTMENT OF TECHNOLOGY



Four year B. Tech. Course Academic Rules and Regulations

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Glossary

B. Tech.: Bachelor of Technology, an Under Graduate Degree awarded from the Shivaji University, Kolhapur

Director: Director, Department of Technology, Shivaji University, Kolhapur

DC: Department Committee

DEC: Departmental Examination Coordinator

Semester: The academic year shall be divided into two regular semesters of approximately 20 weeks duration each.

Typically the odd semester shall be from the first week of July to last week of November while the even semester shall be from the first week of January to the last week of May.

This shall include the period of academic delivery (14 to 15 weeks), Continuous Internal Evaluation (CIE) i.e. Internal Test 1 and Internal Test 2, Semester End Examination (SEE) assessment and declaration of results.

Course: Subject

Course Coordinator: Subject teacher

Course Credit: Weighted sum of the number of Lecture hours (L), Tutorial hours (T), and Practical hours (P) associated with the course.

Credits Earned: The sum of course credits for credit courses in which a student has passed.

Grade: Assessment of the student's performance in a course indicated by the letters, "AA", "AB", "BB", "BC", "CC", "CD", "DD", "FF", "XX", "ABSENT", "PP", "NP".

Grade Point: Number equivalent of the letter grades given by 10, 9, 8, 7, 6, 5, 4 corresponding to grades "AA", "AB", "BB", "BC", "CC", "CD", "DD" respectively. "FF" and "XX" carry zero grade points.

Instructor: Member of faculty who shall be assigned to teach a specific course.

Semester Grade Points: The sum of the products of credits and Grade Points for each course registered by a student in a semester.

SGPA: Semester Grade Point Average

CGPA: Cumulative Grade Point Average

ATKT: Allowed to Keep Terms.



Shivaji University, Kolhapur DEPARTMENT OF TECHNOLOGY

Four year B. Tech. Course Academic Rules and Regulations

R.B.T. 1 Admission:

Candidates are admitted to this course according to norms and conditions prescribed as per AICTE, DTE, Maharashtra.

R.B.T. 2 Award of Degree:

Following rules prevail for the award of degree:

1. B.Tech Degree shall be awarded to the student, who has registered and earned all the credits of prescribed courses under the general departmental requirements.
2. In addition to the credit requirement prescribed above for the Degree award, each student shall have to complete the requirements of Audit Course (AC) during the programme. All the students shall receive certification as PP (*for Passed*), and NP (*for not passed*) in AC, in the Grade Card. While obtaining certification as PP is a mandatory requirement for the Degree award of a student, this shall not be taken into account for computing the final Cumulative Grade Point Average.
3. A student has obtained CGPA ≥ 4.5 .
4. A student has paid all the institute dues and satisfied all the requirements prescribed.
5. A student has no case of indiscipline pending against him/her.
6. University authorities shall recommend the award of B. Tech. Degree to a student who is declared to be eligible and qualified for above norms.

R.B.T. 3 Attendance Rule:

All students must attend every lecture, tutorial and practical class. However, to account for late registration, sickness or other such contingencies, the attendance requirement will be a minimum of 75% of the classes actually held. A student with less than 75% attendance in a course during the semester, in lectures, tutorials and laboratories taken together (as applicable), will be awarded an 'XX' grade in that course irrespective of his/her performance in the tests.

The course coordinator will award 'XX' grade to the student who is deficient in attendance taking into account the consolidated attendance record for the whole semester. For the purpose of

attendance calculation, every scheduled practical class will count as one unit irrespective of the number of contact hours.

Attendance record will be maintained based upon roll calls (or any equivalent operation) in every scheduled lecture, tutorial and practical class. The course coordinator will maintain and consolidate attendance record for the course (lectures, tutorials and laboratories together, as applicable).

R.B.T. 4 Academic Progress Rules (ATKT Rules)

1. A student shall be allowed to register for the courses of the next year's odd semester only if he/she has earned all the credits of the previous year and has not failed in more than three passing heads (SEE, EPE/EOE) shall be considered for deciding the eligibility for ATKT.
2. For the promotion to the Third Year, student should not fail in more than three passing heads (SEE, EPE/EOE) of Second Year and all credits of First Year must be earned.
3. For the promotion to the Final Year, student should not fail in more than three passing heads (SEE, EPE/EOE) of Third Year and all credits of Second Year must be earned.
4. A student who has obtained 'FF' grade in SEE of a regular semester and has obtained 'FF' grade in 2nd attempt of SEE shall be eligible to choose one of the two options below to clear his/her backlog:
 - i. Re-registration for the next regular semester course whenever that course is offered.
 - ii. Application for Repeated Examination.
5. A student who has detained in a regular semester and obtained 'XX' grade can Re-register for the next regular semester whenever it is offered.
6. The maximum duration for getting B. Tech. degree for students admitted in the first semester of U.G. program shall be 12 semesters (six academic years) while for lateral entry students admitted in the third semester shall be 10 semesters (five academic years) from their date of admission. The maximum duration of the program includes the period of withdrawal, absence and different kinds of leaves permissible to a student but excludes the period of rustication of a student from the Department. However, genuine cases on confirmation of valid reasons may be referred to Director of the Department and Departmental Examination Coordinator (DEC) jointly for extending this limit by additional one year.
7. If a student is unable to gain all credits of first year in three years from the date of his/her admission, then he/she shall be declared as "Not Fit for Engineering" leading to discontinuation of his/her registration with the Department.
8. Depending upon the academic progress of a student, Department may take a decision regarding continuation or discontinuation of his/her registration with the institute.

R.B.T. 5 Academic Flexibility

1. Flexibility in deciding Structure and Contents of Curriculum with reasonable frequency for changes in the same.
2. Continuous Assessment of Students performance with newly adopted - Credit System based on Award of Grade.
3. Credits are quite simply a means of attaching relative values to courses different components. They are a currency of learning, and in general regarded as a measure of the time typically required to achieve a given curricular outcome.
4. All subjects (year-wise) under each course/discipline are unitized

R.B.T. 6 Credit system:

Education at the Institute is organized around the semester-based credit system of study. The prominent features of the credit system are a process of continuous evaluation of a student's performance/progress and flexibility to allow a student to progress at an optimum pace suited to his/her ability or convenience, subject to fulfilling minimum requirements for continuation.

A student's performance/progress is measured by the number of credits that he/she has earned, i.e. completed satisfactorily. Based on the course credits and grades obtained by the student, grade point average is calculated. A minimum grade point average is required to be maintained for satisfactory progress and continuation in the program. Also a minimum number of earned credits and a minimum grade point average should be acquired in order to qualify for the degree. All programs are defined by the total credit requirement and a pattern of credit distribution over courses of different categories.

R.B.T. 7 Features of Credit System at Department of Technology, Shivaji University, Kolhapur:

Every subject is allotted credits based on its academic importance/weight age.

1. All subjects may not have same credits.
2. 21 - 24 Credits / Semester. Total no. of credits for B. Tech degree (Sem. I to VIII) = 178-190.
3. Absolute Grading System with 7 Passing Grades viz. AA, AB, BB, BC, CC, CD, DD and FF for failure.
4. Standardization of courses; each course is of 6 units. IT1 for UNIT 1 and 2, IT2 for UNIT 3 and 4, SEE for all units and **more weightage** for UNIT 5 and UNIT 6.
5. Continuous Internal Evaluation (CIE) and Semester End Examination (SEE), both having equal (50:50) weightage in the student's performance in Course Work/Laboratory Work and other

activities. A student's performance in a subject shall be judged by taking into account the results of CIE and SEE together.

(Note: The CIE shall be conducted throughout the Semester on dates announced in advance by the department, and its results made known to the students from time to time. However, the dates for the SEE shall be fixed at the University level.)

6. Continuous Internal Evaluation consists of Internal Test 1 [25%], and Internal Test 2 [25%] handled by Department of Technology and Setting of question papers should be done by course coordinator.
7. Semester-End Examination (SEE), to be conducted by the Department of Technology, Setting of question papers should be done by course coordinator and jointly with an external examiner; this shall include a written examination for theory courses and practical/design/drawing examination with built-in oral part for laboratory/ design/drawing courses.
8. Under no circumstances a request for re-test will be entertained after CIE except to meet the needs of students specially permitted by the Department. For such situation, he/she shall suffer a grade penalty as per Table 3.
9. Care shall be taken to ensure that the total numbers of days for academic work are ≥ 180 per year.
10. Academic schedule prescribed shall be strictly adhered to all the Branches.

R.B.T. 8 Course credits assignment:

Each course, except a few special courses, has a certain number of credits assigned to it depending upon its lecture, tutorial and laboratory contact hours in a week. This weight-age is also indicative of the academic expectation that includes in-class contact and self-study outside of class hours.

Lectures and Tutorials: One lecture or tutorial hour per week per semester is assigned one credit.

Practical/Laboratory: One laboratory hour per week per semester is assigned half credit.

Example: Course: Concrete Technology: 4 credits (3-0-2)

The credits indicated for this course are computed as follows:

3 hours/week lectures = 3 credits

0 hours/week tutorial = 0 credit

2 hours/week practical = $2 \times 0.5 = 1$ credit

Also, (3-0-2) 4 credit course = (3 h Lectures + 0 h Tutorial + 2 h Practical) per week
= 5 contact hours per week

R.B.T. 9 Detailed Evaluation Scheme:

Out of total 100% theory weightage, 50% weightage is allotted for Continuous Internal Evaluation (CIE). In CIE minimum 40% weightage is required to become eligible for Semester End Examination (SEE) of respective course.

1. CIE (50% weightage) includes :
 - a. Internal Test – 1, of 25% in 5th week on 1st and 2nd UNIT - (Duration 1hr.)
 - b. Internal Test - 2, of 25% in 10th week on 3rd and 4th UNIT - (Duration 1hr.)
2. For the Semester End Examination (SEE), 50% weightage (3 hrs. duration) paper will be set, in which student must secure minimum 40% as university examination passing head and Minimum 40% marks required in CIE to become eligible for SEE of respective course.
3. Final theory letter grade will be awarded (100%) will be the addition of CIE (50%) and SEE (50%).
4. Final laboratory letter grade will be awarded (100%) will be the addition of CIE (50%) and SEE (50%).
5. Semester End Examination (SEE) for laboratory consists of External Practical Evaluation (EPE)/External Oral Examination (EOE). Continuous Internal Evaluation (CIE) for laboratory consists of Internal Practical Evaluation (IPE) / Internal oral Evaluation (IOE).
6. There shall be no (SEE) for laboratory courses of First Year. The entire assessment of a student shall be based on CIE (IPE/IOE) 100% weight age and a minimum performance of 40% in CIE shall be required to get the passing grade. CIE of laboratory work consists of (IPE/IOE) shall be based on turn-by-turn supervision of the student's work and the quality of his/her work as prescribed through laboratory journals and his/her performance in oral or Practical/Oral examinations uniformly distributed throughout the semester.
7. The assessment of laboratory course from the 3rd semester onwards shall be carried out in two parts.
 - i. CIE of laboratory consists of IPE/IOE shall be based on turn-by-turn supervision of the student's work and the quality of his/her work as prescribed through laboratory journals and his/her performance in oral or Practical/Oral examinations uniformly distributed throughout the semester.
 - ii. SEE of laboratory shall be based on performing an experiment followed by an oral examination or a written examination.

- iii. The relative weightage for CIE and SEE for assessment of laboratory courses shall be 50% and 50% respectively from second year onwards and a minimum performance of 40% in both CIE and SEE separately shall be required to get the passing grade.
 - iv. SEE for laboratory course shall normally be held one week before the SEE for theory courses and shall be conducted by a panel of examiners consisting of external and internal examiner. This activity shall be coordinated by Department Examination Coordinator (DEC) in consultation with Coordinator of the respective department.
- 9.** A student failed in SEE of a laboratory course in a regular semester shall be eligible to appear for examination conducted along with SEE of laboratory courses of the subsequent semester. Such examination shall be fairly comprehensive (generally of 3 hours similar to EPE/EOE i.e. External Practical/Oral Examinations) to properly judge his/her practical skill and theoretical knowledge for that laboratory course. He/She shall suffer a grade penalty as per Table 3.

10. Assessment of Seminar, Mini-project, Major Project etc:

- i. The Seminar/Project report must be submitted by the prescribed date usually two weeks before the end of academic session of the semester.
- ii. It is desirable that the topics for seminar/project be assigned by the end of previous semester.
- iii. The seminar report and the presentation of seminar shall be evaluated by panel of three departmental faculty members (decided by Branch Coordinator).
- iv. The mini-project shall be evaluated jointly by a panel of three Internal Examiners.
- v. The report on field training shall be evaluated by a panel of three Internal Examiners.
- vi. The assessment of B. Tech major project work shall be carried out in two phases as shown below:

I-phase CIE (50% weightage) consists of

- a) Departmental Committee (Synopsis submission seminar)
- b) Project work assessment by Guide

(Departmental Committee consists of following:

Director- Chairman

Branch Coordinator from respective branch – member

Senior faculty from respective branch – member

Guide/Course Coordinator- member)

I-phase SEE (50% weightage) consists of Progress Seminar and presentation evaluated by Panel of Internal Examiners.

II-phase CIE (50% weightage) consists of

- a) Project work assessment by Guide
- b) Report submission seminar evaluated by Departmental Committee

II-phase SEE (50% weightage) (Final orals and presentations) evaluated by Panel of External and Internal Examiners

11. *Semester End Examination duration will be 4 hrs.

12. In respect of CIE, and Laboratory work a target date shall be fixed for the completion of each sheet, job, Project, experiment or assignment and the same complete or incomplete shall be collected on the target date and assessed immediately at the respective departments by the concerned teachers and % marks (or grades) shall be submitted to the Co-ordinator. The Co-ordinator of the Department of Technology shall communicate this % of marks (or grades) to the University within a week after the end of each term.

R.B.T. 10 Earning credits:

At the end of every course, a letter grade is awarded in each course for which a student had registered. On obtaining a pass grade ($\geq 40\%$ minimum grade DD), the student accumulates the course credits as earned credits. A student's performance is measured by the number of credits that he/she has earned and by the weighted grade point average.

The credit system enables continuous evaluation of a student's performance, and allows the students to progress at an optimum pace suited to individual ability and convenience, subject to fulfilling minimum requirement for continuation.

R.B.T. 11 CGPA Improvement Policy for award of degree:

A student getting CGPA ≤ 4.50 with grade 'DD' in any course or grade 'FF' in any course shall have the possibility to repeat one or more 'DD' graded courses along with the failed courses, /are being offered in a semester.

An opportunity shall be given to a student who has earned all the credits required by the respective program with CGPA greater than or equal to 4.00 but less than 4.50, to improve his/her grade by allowing him/her to appear for Repeated s of maximum two theory courses of seventh and eighth semester.

R.B.T. 12 Evaluation System:

1. **Semester Grade Point Average (SGPA)**

$$= \frac{\sum(\text{Course credits in passed courses} \times \text{Earned Credits})}{\sum(\text{Course credits in registered courses})}$$

2. **Cumulative Grade Point Average (CGPA)**

$$= \frac{\sum(\text{Course credits in passed courses} \times \text{Earned Credits}) \text{ of all Semesters}}{\sum(\text{Course credits in registered courses})}$$

- i. Cumulative Grade Point Average (CGPA) will be calculated cumulatively for Sem. I to Sem. VIII for regular students.
- ii. Cumulative Grade Point Average (CGPA) will be calculated cumulatively for Sem. III to Sem. VIII for lateral entry students.

3. At the end of B. Tech Program, student will be placed in any one of the divisions as detailed below (According to AICTE Handbook 2011-12):

Ist Division with distinction : CGPA \geq 8.25 and above

Ist Division : CGPA \geq 6.75 and $<$ 8.25

IInd Division : CGPA \geq 6.75 and $<$ 6.25

As per AICTE Handbook (2011-12), new gradation suggested as follows.

Table 1

Grade Points	Equivalent Range
6.25	55%
6.75	60%
7.25	65%
7.75	70%
8.25	75%

Conversion of CGPA to percentage marks for CGPA \geq 4.5 can be obtained using equations.
 Percentage marks = (CGPA x 10) – 7.5

An example of these calculations is given below:

Typical academic performance calculations - I semester

Table 2

Course no.	Course credits	Grade awarded	Earned credits	Grade points	Points secured
Col 1	Col 2	Col 3	Col 4	Col 5	Col 6 (col4 *col5)
MALXXX	5	CC	5	6	30
CSLXXX	4	CD	4	5	20
PHLXXX	4	AA	4	10	40
PHPXXX	2	BB	2	8	16
MELXXX	4	FF	0	0	00
TTNXXX	2	AB	2	9	18
Total	21		17	38	124

1. Total Points earned for this semester = 124

$$\text{Semester Grade Point Average (SGPA)} = \frac{124}{21} = 5.90$$

2. Cumulative Grade Point Average (CGPA) =

$$\begin{aligned} \text{Cumulative points earned in all passed courses} &= 124 \text{ (past semesters)} + 124 \text{ (this sem.)} \\ &= 248 \end{aligned}$$

$$\text{Cumulative earned credits} = 23 \text{ (past semesters)} + 21 \text{ (this sem.)} = 44$$

$$\text{Cumulative Grade Point Average (CGPA)} = \frac{\Sigma(124 + 124)}{\Sigma(23 + 21)} = 5.63$$

Table 3
System of Evaluation

Grade	Grade Points	Marks obtained (%)			Description of Performance
		Regular Semester	Re-examination	Repeated Examination	
AA	10	90-100	--	--	Outstanding
AB	09	80-89	90-100	--	Excellent
BB	08	70-79	80-89	90-100	Very Good
BC	07	60-69	70-79	80-89	Good
CC	06	50-59	60-69	70-79	Fair
CD	05	45-49	50-59	60-69	Average
DD	04	40-44	40-49	40-59	Poor
DD\$	04	Below 40	Below 40	Below 40	Poor (Subject to Application of Ordinance 96)
FF	00	Below 40	Below 40	Below 40	Fail
XX	--	--	--	--	Detained
ABSENT	--	--	--	--	Absent
PP	--	--	--	--	Passed (Audit Course)
NP	--	--	--	--	Not Passed (Audit Course)

Note: A equivalent certificate of CGPA to percentage of marks will be provided to student on his/her demand after remitting prescribed fees by Shivaji University.

R.B.T. 13 Entry of Students from Regular Pattern to Credit Pattern

A student of Department of Technology, Shivaji University, Kolhapur admitted before academic year 2011-12, and such student shall clear back log subjects of regular pattern if any, by appearing for respective examination conducted by Department of Technology. Further they shall undergo additional academic requirements (bridge course) if required as suggested by Department committee, so as to have turning with credit pattern.

R.B.T. 14 Audit Courses:

Additional courses shall be included as audit courses from the third semester onwards. While the performance of the student in audited courses shall be included in the Grade Card. These grades are not contributed to SGPA or CGPA of the concerned student.

R.B.T. 15 Award of Grades for Re-Examination:

- A student who has obtained grade 'FF' in regular semester shall be eligible to appear for re-examination conducted before the commencement of the next regular semester.
- In such cases Continuous Internal Evaluation performance of a student shall not be wiped out.
- A student shall apply for re-examination before the last date of such application and shall appear for re-examination.
- 50% weightage similar to SEE shall be given to re-examination.
- A student who is eligible for re-examination, but remains absent for reexamination shall be given grade 'Absent'.
- A student shall be awarded a grade between 'AB' to 'DD', or 'FF' or 'XX' as given in Table 3 depending upon the cumulative marks obtained by him/her in CIE and Re-examination of SEE. Here a student has to suffer a grade penalty by accepting one grade lower as compared with the regular grades.

R.B.T. 16 Showing Evaluated Semester End Examination Answer Paper, Re-Evaluation, and applying for revaluation:

A student having doubt regarding the grade declared in a course can apply to see his/her evaluated SEE answer book. By remitting the prescribed fee as specified, a student can also apply for rechecking of his/her SEE answer book as per Shivaji University norms.

R.B.T. 17 Change of Branch:

Students shall be eligible to apply for Change of Branch after completing the first two semesters. The following rules/ guidelines shall be used for considering their applications for change:

1. The change of branch shall be permitted strictly on merit basis subject to the rules of admissions prevailing at the time of such change.
2. Students without fail grades and/or backlogs shall be eligible to apply for change of branch and can give their choices in the order of preference.
3. The request for change of branch by a student from branch A to branch B shall be considered if number of students of branch B does not exceed the sanctioned capacity of branch B.
4. All such transfers can be effected only once at the beginning of the second academic year of the 4 years UG program. No application for change of branch during subsequent academic years shall be entertained.

R.B.T. 18 Disciplines and Conduct:

- i. Every student shall be required to observe discipline and decorous behavior both inside and outside the campus and not to indulge in any activity, which shall tend to bring down the prestige of the Department.
- ii. Any act of indiscipline of a student reported to the Department, shall be referred as per Shivaji University norms.
- iii. If a student while studying in the institute is found indulging in anti-national activities contrary to the provisions of acts and laws enforced by Government he/she shall be liable to be expelled from the Department without any notice.
- iv. If a student is involved in any kind of ragging, the student shall be liable for strict action as per Maharashtra anti-ragging act 1999, which is in effect from 15th May 1999.
- v. If any statement/information supplied by the student in connection with his/her admission is found to be false/ incorrect at any time, his/ her admission shall be cancelled and he/she shall be expelled from the institute and fees paid shall be forfeited.
- vi. Student once admitted in the Department of Technology shall follow instructions issued from time to time.
- vii. If a student is found guilty of malpractice in examinations then he/she shall be punished as per the recommendations of the Shivaji University, Kolhapur.

- viii. Every admitted student shall be issued photo identification (ID) card which must be retained by the student while he/she is registered at Department of Technology. The student must have valid ID card with him/her while in the Department of Technology.
- ix. Any student who alters or intentionally mutilates an ID card or who uses the ID card of another student or allows his/her ID card to be used by another student shall be subjected to disciplinary action.
- x. The valid ID card must be presented for identification purpose as and when demanded by authorities. Any student refusing to provide an ID card shall be subjected to disciplinary action.

Note: All other rules and regulations will be applicable as per Shivaji University, Kolhapur.