

Program Regulations for Bachelor of Technology 4-year Degree course

Preamble:

The quality of Technical Education depends on many factors but largely on- outcome based socially and industrially relevant curriculum, good quality motivated faculty, teaching learning process, effective industry internship and evaluation of students based on desired outcomes. To regulate, in an orderly manner, the process of admission, registration of students, conduct of classes, teaching -learning, Assessment, Evaluation and Grading processes to award Bachelor of Technology degree in Rai Technology University, Bengaluru with due consideration to the applicable Regulations of UGC and AICTE.

Definitions of Key Words

- a) **Academic Year:** Two consecutive (one odd + one even) semesters constitute one academic year.
- b) **Choice Based Credit System (CBCS):** The CBCS provides options for students to select courses from the prescribed courses (core, open elective, discipline elective, ability and skill enhancement language, soft skill courses and so on).
- c) **Course:** Usually referred to as 'papers' is a component of a programme. All courses need not carry the same weight. The courses should define learning objectives and learning outcomes. A course may be designed to comprise lectures / tutorials / laboratory work / fieldwork / project work / vocational training / viva / seminars / term papers / assignments/ presentations / self-study or a combination of some of these.
- d) **Grade Point:** It is a numerical weight allotted to each letter grade on a 10-point scale.
- e) **Credit Point:** It is the product of grade points and the number of credits for a course.
- f) **Programme:** A programme leading to the award of a Degree, diploma or Certificate.
- g) **Semester:** Each semester will consist of over 13 to 15 weeks of academic work equivalent to 90 actual teaching days.
- h) **Semester Grade Point Average (SGPA):** It is a measure of performance of work done in a semester. It is the ratio of total credit points secured by a student in various courses registered in a semester and the full course credits taken during that semester. It shall be expressed up to two decimal places.
- i) **Cumulative Grade Point Average (CGPA):** It measures the overall cumulative performance of a student over all the semesters of a programme. The CGPA is the ratio of total credit points secured by a student in various courses in all the semesters and the sum of the total credits of all courses in all the semesters. It is expressed up to two decimal places.
- j) **Transcript or Grade Card or Certificate:** Based on the grades earned, a graded certificate shall be issued to all the registered students after every semester. The grade certificate will display the course details (code, title, number of credits, grade secured).

1.0 Title and Commencement

- The first degree in Technology of four-year (eight semester) course, shall be designated as BACHELOR OF TECHNOLOGY, in respective Branch.
- The studies and examinations of Bachelor of Technology shall be on the basis of credit-based grading system.

2.0 ADMISSIONS

2.1 Minimum qualification for admission into Bachelor of Technology course shall be as per the Eligibility Criteria issued from time to time from Govt. of India & Higher Education Department, Govt. of Karnataka and Rai Technology University Bangalore.

2.2 Minimum qualification for direct admission to second year (3rd Semester) Bachelor of Technology Course termed as Lateral Entry shall be as per the prevalent norms of the Government of Karnataka.

2.3 Admission to different programs of the University shall be based on merit, providing equal opportunity to all without any prejudice towards gender, religion, caste, creed or nationality of a candidate.

2.4 The University may make suitable provisions for reservation for the students belonging to weaker section(s) of the society and others in accordance with the provisions of the Act of the University and decision of the Board of Governors.

2.5 The admission criterion recommended by the Admission Committee and approved by the Academic Council shall be followed for admission in all the Programs of studies.

2.6 The University may make provisions for admission through lateral entry in programs, as may be approved from time to time.

3.0 STRUCTURE of BACHELOR OF TECHNOLOGY (B.Tech.) PROGRAMME

3.1 The total credits for the award of B.Tech. degree in any branch shall be as approved by Board of Studies.

3.2 The medium of instruction and examination shall be English throughout the course of study.

3.3 Minimum credits required to earn B.Tech., Degree in particular branch shall be decided by the concerned Board of studies (BOS).

3.4 The subjects to be studied in different semester of Bachelor of Technology course shall be as per the Schemes and Syllabus, approved by Board of Studies.

3.5 A candidate shall be permitted to earn credits in self-learning mode through Massive Open Online Course (MOOCs). A list containing permitted courses for MOOCs along with their credits shall be prescribed by the respective BOS and shall be notified by the University from time to time.

3.6 Candidates appearing as regular students for any semester examination are required to attend minimum of 75% of the lectures delivered and the practical classes held separately in each subject of the course of study, provided that a short fall in attendance up-to 10% and a further 5% can be condoned by the Dean/Director of the college and Vice-Chancellor of the University, respectively for satisfactory reasons.

4.0 Registration of Students

4.1 Academic Registration

- (a) The Head of the Department/Dean of the respective college shall issue the list of courses to be offered during the semester well before the Registration date(s) specified in the Academic Calendar.
- (b) Every student shall register for the courses that he/she wishes to pursue in that semester as prescribed.
- (c) Each Head of Department, with the approval by Dean of the respective college, shall nominate Mentors from amongst the faculty members of the Department to provide necessary information on the courses and to advise the students on registration.

4.2 Registration for Semesters

- (a) Registration for each semester has to be done on date(s) notified in Academic Calendar. It will involve:
 - i. Clearance of all dues of the University,
 - ii. Submitting the registration form on the date(s) specified in the Academic Calendar.
- (b) A student must ensure that he/she satisfies the pre-requisites, if any, for each course he/she registers for. The sole responsibility for registration rests with the student.
- (c) The student will not be allowed to undergo academic registration if the 'Maximum Duration for Completion of the Degree' does not permit so.
- (d) A student will not get any credit for a course for which he has not registered or has registered without being eligible.

4.3 Late Registration

- (a) The maximum time permitted for late registration on payment of prescribed fee shall be two weeks from the date of conclusion of registration specified in the Academic Calendar.
- (b) Late registration may be allowed, beyond the period of two weeks, by the Vice Chancellor or any other authorized official only on valid reasons and on the recommendations of the Mentor/ Head of Department/ Dean of the respective college;
Provided that in exceptional circumstances, on the recommendations of Dean of a college, the Vice Chancellor may further allow late registration.
- (c) Late Registration may be allowed for a student who is on disciplinary probation, only with the approval of the Vice-Chancellor.
- (d) Students registering late may be allowed to compensate for the loss of any component of continuous internal evaluation by the Dean of the College. The student may be allowed to complete the same on date(s) decided by the Dean of the College.

Additional Courses:

In the categories of minor subject, genetic elective and skill enhancement courses/vocational courses, a student may earn up to 6 credits per year in the entire tenure of the 3-year undergraduate degree

programme after paying due fees for registration and examination.

4.4. Maximum Duration for the Completion of a Degree

- (a) The maximum duration for completion of a degree program, shall be N+2 years, where N, stands for the normal or minimum duration prescribed for completion of any Program;
- (b) Provided , that in exceptional circumstance a further extension of one more year may be granted. The Vice Chancellor may consider allowing extension by one year beyond N+2 years for completion of a degree on case to case basis, depending on the merit of each case.
- (c) The enrolment of the student, who fails to complete the requirements of the award of a degree/diploma in extended duration, shall stand cancelled and no degree shall be awarded.

4.5 Duration of the Semester

- (a) The date of commencement and conclusion of Odd Semester and Even Semester shall be as notified in the Academic Calendar.
- (b) The duration of each semester shall be on an average 90 working days excluding examinations.

4.6 Registration for Examination

- (a) No student shall be allowed to any examination of the University, unless he has been duly enrolled/registered as a student for the prescribed number of courses.
- (b) A student who fails to submit the registration form (every Semester) shall be deemed as an unregistered student and shall not be allowed to attend classes and take examinations even if he/she has paid the fees.

4.7 ASSESSMENT AND EVALUATION

Assessment is an integral part of the teaching-learning process. A multidisciplinary program requires a multidimensional assessment to measure the effectiveness of the diverse courses. The assessment process acts as an indicator to both faculty and students to improve continuously. The following are the guidelines for effective assessment of the program:

- a) Student assessment should be as comprehensive as possible and provide meaningful and constructive feedback about the teaching-learning process to faculty and students.
- b) Assessment tasks need to evaluate the capacity to analyse and synthesise new information and concepts rather than simply recall information previously presented.
- c) The assessment process should be carried on in a manner that encourages better student participation and rigorous study.
- d) A range of tools and processes for assessment should be used (e.g. open book tests, portfolios, case study/assignments, seminars/presentations, field work, projects, dissertations, peer and self-assessment) in addition to the standard paper-pencil test. The concerned teachers shall conduct tests/seminars/case studies by prior intimation to the students on evaluation modalities. The evaluated courses/assignments shall be immediately provided to the students.
- e) Paper-pencil tests should be designed rigorously using various tools and processes (e.g. constructed response, open-ended items, multiple-choice, and more than one correct answer). Faculty may provide options for a student to improve their performance in the continuous assessment mode.

- f) Continuous Internal Evaluation marks shall be shown separately. A candidate who has failed or wants to improve the result shall retain the CIE marks, provided they fulfil the minimum requirements.

Continuous Internal Evaluation (CIE)

Total marks for each course shall be based on continuous assessments and semester-end examinations.

Total Marks for each course	= 100%
Continuous Internal Evaluation (C1)	= 20% marks
Continuous Internal Evaluation (C2)	= 30% marks
Semester End Examination (C3)	= 50% marks.

- a) The outline for continuous internal evaluation activities for Component-I (C1) and Component-II (C2) of a course shall be as under.

Outline for continuous internal evaluation activities for C1 and C2

Activities	C1	C2	Total Marks
Mid Sem Test	10% marks	10% marks	20%
Seminars/Presentations/Activity	10% marks		10%
Case study /Assignment / Fieldwork / Project work etc.		20% marks	20%
Total	20% marks	30% marks	50%

- b) For practical course of full credits, Seminar shall not be compulsory. In its place, marks shall be awarded for Practical Record Maintenance (the ratio is 50% : 50%)
- c) Conduct of Seminar, Case study / Assignment, etc. can be either in C1 or in C2 component at the convenience of the concerned teacher.
- d) The teachers concerned shall conduct test / seminar / case study, etc. The students should be informed about the modalities well in advance. The evaluated courses / assignments during component I (C1) and component II (C2) of assessment are immediately provided to the candidates after obtaining acknowledgement in the register by the concerned teachers(s) and maintained by the Chairman in the case of a University Post-Graduate Department and the Principal / Director in the case of affiliated institutions. Before commencement of the semester end examination, the evaluated test, assignment etc. of C1 and C2 shall be obtained back to maintain them till the announcement of the results of the examination of the concerned semester.
- e) The CIE marks shall be published on the notice board of the department/college for information of the students.
- f) There shall be no minimum in respect of CIE marks.
- g) CIE marks may be recorded separately. A candidate who has failed or rejected the result shall retain the internal assessment marks.

4.8 Academic Progression

- i. A student passes and obtains credit for a course when he secures minimum of 40% marks in the CIE as well as 40% marks in the total of SEE.
- ii. Student who fails in a laboratory/studio course shall repeat it as per the schedule decided by the Department/College.
- iii. A student is awarded F (Failure and Improve) grade in a course, he/she has registered in a semester, if
 - a. A student fails to secure 40% marks in CIE and/or SEE;
 - b. A student fails to appear in SEE; or
 - c. A student fails to meet attendance requirement in the course.
- iv. All marks obtained in assignments/practical, presentation or a report will be made available to the students within a reasonable time after evaluation.

4.9 CONDUCT OF EXAMINATIONS

A candidate shall register for all the courses/papers of a semester for which they fulfil the requirements when they appear for the examination of that semester for the first time.

- (a) There shall be Theory and Practical examinations at the end of each semester, ordinarily during November-December for odd semesters and during May-June for even semesters, as prescribed in the Scheme of Examinations.
- (b) Unless otherwise stated in the schemes of examination, practical examinations shall be conducted at the end of each semester. They shall be conducted by two examiners, one internal and one external and shall never be conducted by both internal examiners.
- (c) The candidate shall submit the record book for practical examination duly certified by the course teacher and the H.O.D/staff in-charge. It shall be evaluated at the end of the Semester at the practical examination.

Special Term / Make-up Examination

- A Makeup Examination will be conducted to give an opportunity to the students to clear the backlog in the same term, for the students who are in their final semester of examination and have got any backlog in the final semester.
- The Makeup Examination shall be available only to final students who may have missed to take final end semester examination in one or more courses in a semester and also for those who earned F- Grade. The makeup examination shall be held as per dates notified by the Office of the Controller of Examinations but the term will remain same. The standard of conducting this examination shall be the same as that of the normal end term examination.

Term Grant

- In case a student's with continued term fails to take-up the semester end examinations due to critical exigencies, such student shall be allowed to continue in the subsequent semester and can give the examination for both the semesters together. The term granted is valid for the immediate next semesters only.

4.9 Yearly Promotion

- There shall be no condition of passing papers for promotion to higher semester / year in the program. However, the candidates will have to complete the degree within the maximum duration allowed as mentioned in section 4.4.
- The students will be allowed to register a maximum of 32 credits for the backlog papers in a particular academic year (excluding the credits already registered for the particular semester).

4.10 Grace Marks passing in each course/ head of passing (Theory/ Practical/ External / Semester End Exam)

- A candidate shall be eligible for grace marks provided: He / She have appeared in all the papers prescribed for the Examination.
- 1% grace marks will be calculated on the basis of Maximum Marks of the examination. The grace marks shall be given in the papers/subjects in which a candidate has appeared in that examination provided he/she passes the examination by adding such grace marks not more than 03 subjects in a semester in first attempt only. The grace marks awarded shall be rounded off to the next integer.
- Grace marks to be awarded to a student only in the Semester End Examination. No grace marks to be awarded in Continuous Internal Evaluation.

5.0 Award of Grades

The following letter grades shall be used to report the performance of a student:

Grades and Grade Points			
Letter Grades	Grade Points	Description	Range of Marks
O	10	Outstanding	90-100
A+	9	Excellent	80-89
A	8	Very Good	70-79
B+	7	Good	60-69
B	6	Above Average	50-59
C	5	Average	40-49
F	0	Fail	0-39
Ab	0	Absent	Absent

Note: The Grades shall be awarded by competent authority as per procedure laid down by the Academic Council.

Semester Grade Point Average (SGPA)

The Semester Grade Point Average is a weighted average of the grade points earned by a student in all the courses credited and describes his academic performance in a semester. The Semester Grade Points Average (SGPA) shall be calculated as under:-

$$SGPA = \frac{\sum_{i=1}^n c_i p_i}{\sum_{i=1}^n c_i}$$

Where c_i is the number of Credits assigned for the i^{th} subject of a Semester, p_i is the grade point earned in the i^{th} subject, where $i = 1, 2, \dots, n$, is the number of subjects in that semester for which SGPA is to be calculated.

Cumulative Grade Point Average (CGPA)

The Cumulative Grade Point Average indicates overall academic performance of a student in all the courses registered up to and including the latest completed semester. It is computed in the same manner as SGPA, considering all the courses as mentioned below:

$$CGPA = \frac{\sum_{j=1}^m SG_j NC_j}{\sum_{j=1}^m NC_j}$$

here NC_j is the number of total Credits assigned for the j^{th} semester, SG_j is the SGPA earned in the j^{th} semester, where $j = 1, 2, \dots, m$, is the number of semesters till which CGPA is being calculated.

On completing all requirements for the award of the undergraduate degree, the CGPA will be calculated and this value will be indicated on the degree. The division obtained shall be as follows:

Division	Criteria
First division with distinction	The candidate has earned minimum number of credits required for the award of the degree with CGPA of 7.50 or above.
First division	The candidate has earned minimum number of credits required for the award of the degree with CGPA of 6.50 above but less than 7.50.
Second division	The candidate has earned minimum number of credits required for the award of the degree with CGPA of 5.00 or above but less than 6.50.

Pass	The candidate has earned minimum number of credits required for the award of the degree with CGPA of 4.00 or above but less than 5.0.
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6.0 Transfer of Admission

Transfer of admissions are permissible only for odd semesters for students of other universities and within the University.

Conditions for transfer admission of students of other Universities

- a) A Candidate migrating from any other University may be permitted to join an odd semester of the degree programme provided they have passed all the subjects of previous semesters/years as the case may be. Such candidates must satisfy all other conditions of eligibility stipulated in the regulations of the University.
- b) Their transfer admission shall be within the intake permitted.
- c) They shall fulfil the attendance requirements as per the University Regulation.
- d) The candidate who is migrating from other Universities is eligible for overall class and not for ranking.
- e) They shall complete the programme as per the regulation governing the maximum duration of completing the programme as per this regulation.

7.0 Power to Remove Difficulties

Suppose any difficulty arises in giving effect to the provisions of these regulations. In that case, the Vice-Chancellor may by order make such provisions not inconsistent with the Act, Statutes, Ordinances or other Regulations, as appears to be necessary or expedient to remove the difficulty. Every order made under this rule shall be subject to ratification by the Appropriate University Authorities.

8.0 Modification to the Regulations

Notwithstanding the foregoing, any amendments / modifications issued or notified by the University Grants Commission/ Higher Education Commission of India and its verticals such as National Higher Education Regulatory Council, General Education Council or the State Government, from time to time, shall be deemed to have been incorporated into these Regulations and shall constitute an integral part of these Regulations.

