

2
Sri Ramajayam

SASTRA UNIVERSITY

(A University under section 3 of the UGC Act, 1956)

TIRUMALAISAMUDRAM,
THANJAVUR - 613 401, INDIA.



**B.Tech. / M.Tech. (Integrated)
Degree Programmes**

Rules & Regulations

RULES & REGULATIONS FOR B.Tech. & M.Tech. (Integrated) DEGREE PROGRAMMES

(These Rules and Regulations supersede all earlier Rules and Regulations for B.Tech. & M.Tech. (Integrated) Degree programmes and are effective for those admitted in the year 2010 and onwards)

1.0 DEFINITIONS

- 1.1 In these rules and regulations unless the context otherwise requires:
- i) 'Programme' means B.Tech.& M.Tech. (Integrated) degree programme,
 - ii) 'Course' means theory and/or practical subject that is normally studied in a semester, like Mathematics, Engineering Mechanics, Electrical Machines, C Programming Lab etc.

2.0 ELIGIBILITY FOR ADMISSION

- 2.1 Candidates for admission to the first semester of B.Tech. / M.Tech. (Integrated) degree programmes should have passed the final examination of +2 Higher Secondary Course in the academic stream (with Mathematics, Physics and Chemistry as subjects of study) or vocational stream (with Mathematics as one of the subjects of study) conducted by the Board of Secondary Education, Government of Tamil Nadu or an Examination of any other authority accepted by the Board of Management of SASTRA as equivalent thereto. They shall also satisfy the conditions regarding the minimum marks, age and physical fitness as may be prescribed by the Board of Management of SASTRA, from time to time.

- 2.2 Candidates who have passed the Diploma in Engineering and Technology Examinations conducted by the State Board of Technical Education of Govt. of Tamil Nadu or an examination of any other authority recognised by the Board of Management of SASTRA as equivalent thereto, are eligible to join the third semester (II year) of B.Tech. programme under Lateral Entry Scheme. They also shall satisfy the conditions regarding the minimum marks, age and physical fitness as may be prescribed by the Board of Management of SASTRA from time to time.
- 2.3 Candidates who have passed the B.Sc. Degree Examinations conducted by the Universities in Tamil Nadu or an examination of any other authority recognised by the Board of Management of SASTRA as equivalent thereto, are also eligible to join the third semester (II year) of B.Tech. programme under Lateral Entry Scheme. They also shall satisfy the conditions regarding the minimum marks, age and physical fitness as may be prescribed by the Board of Management of SASTRA from time to time.

3.0 DURATION OF THE PROGRAMME

- 3.1 The undergraduate programme leading to the Degree of Bachelor of Technology shall extend over a period of 8 semesters (4 academic years).
- 3.2 The integrated programme leading to the degree of Master of Technology shall extend over a period of 10 semesters (5 academic years).

- 3.3 Each semester shall normally consist of 90 working days followed by practical examination and end semester theory examinations.
- 3.4 For those admitted under Lateral Entry Schemes the duration of the undergraduate B.Tech. degree programme shall be six semesters (i.e) 3rd to 8th semester of the regular programme.
- 3.5 A student admitted to B.Tech. programme is eligible to get B.Tech. (Hons.) degree, subject to the conditions specified in para 10.4 of this regulation

4.0 BRANCHES OF STUDY

- 4.1 SASTRA offers the following B.Tech. / M.Tech. (Integrated) degree programmes
 1. B.Tech. Bioengineering
 2. B.Tech. Bioinformatics
 3. B.Tech. Industrial Biotechnology
 4. B.Tech. Chemical Engineering
 5. B.Tech. Civil Engineering
 6. B.Tech. Computer Science & Engineering
 7. B.Tech. Electronics & Communication Engineering
 8. B.Tech. Electrical & Electronics Engineering
 9. B.Tech. Electronics & Instrumentation Engineering
 10. B.Tech. Information & Communication Technology
 11. B.Tech. Information Technology
 12. B.Tech. Mechanical Engineering
 13. B.Tech. Mechatronics
 14. M.Tech. Advanced Manufacturing (5 year integrated)
 15. M.Tech. Automobile Engineering (5 year integrated)
 16. M.Tech. Communication Systems (5 year integrated)

17. M.Tech. Construction Engineering & Management
(5 year integrated)
18. M.Tech. Industrial Biotechnology (5 year integrated)
19. M.Tech. Instrumentation & Control (5 year integrated)
20. M.Tech. Medical Nanotechnology (5 year integrated)
21. M.Tech. Power Systems (5 year integrated)
22. M.Tech. Structural Engineering (5 year integrated)

4.2 The courses of study and credits for each of the semesters of the various B.Tech./M.Tech. (Integrated) degree programmes are given in the relevant syllabus books.

5.0 THE CREDIT SYSTEM

- 5.1 To be eligible to receive a B.Tech. / M.Tech. (Integrated) degree a student should have successfully completed a minimum of 234 and 288 credits respectively.
- 5.2 Each course, has a certain number of credits assigned to it depending upon its lecture, tutorial and laboratory contact periods in a week.
- 5.3 There are mainly two types of courses that a student has to undergo; lecture courses and practical courses. The practical courses shall include laboratories, workshops and drawing classes. Every course has been assigned a certain number of credits according to the following pattern :
 - a) one credit for each lecture period per week
 - b) one credit for each tutorial period per week

- c) two credits for each practical/drawing session of 3 periods per week
- d) one credit for each practical session of 2 periods per week
- e) B.Tech. project work in the final year will be for 9 credits
- f) M.Tech. (Integrated) project work in the final year will be for 12 credits.

Credits for mini project work, seminar and field visits are separately given for the various B.Tech. degree programmes in the syllabus books.

5.4 The courses offered for the various B.Tech./M.Tech. (Integrated) degree programmes are categorised as follows:

- a) Core courses are compulsory courses identified by each Department, which give a broad base in the main field of study in the academic programme concerned and the number of credits can vary from 108 to 116
- b) Dissertation, project and design courses where special emphasis is laid on the application of knowledge to real time problems
- c) Departmental elective courses offered by the concerned Department for a minimum of 36 credits
- d) Open elective courses offered by other Departments of SASTRA for 12 credits

The number of core courses, Departmental electives and open elective courses are given in the syllabus books of the B.Tech. / M.Tech. (Integrated) Degree programmes.

6.0 COMPLETION OF B.Tech. / M.Tech. (Integrated) PROGRAMMES

- 6.1. A student earns credits by passing courses every semester. A student, who has registered for B.Tech. degree programme, has to earn a minimum of 234 credits to be eligible for the award of the degree.
- 6.2 A student, who has registered for M.Tech. (Integrated) degree programme, has to earn a minimum of 288 credits to be eligible for the award of the degree.
- 6.3 The courses will be offered in semester pattern right from the first year. For each course that the student is undergoing during a semester, there is a Continuous Internal Assessment (CIA) mark, for a maximum of 50 marks, based on the student's performance in the three monthly tests, seminar, quiz, assignment etc. There will be one examination of 3 hours duration at the end of the semester for each credited course. End-semester examination of laboratory courses will be of 3 hours duration and will be conducted immediately after completion of the course work.

- 6.4 A letter grade, corresponding to the marks secured by the student is awarded for each course for which a student has registered. On obtaining a pass grade, the student accumulates the course credits as earned credits. A student's performance is measured by the number of credits that the student has earned and the weighted grade point average.
- 6.5 A student admitted as per rule 2.1 should complete the B.Tech. Programme within a period of seven years from the date of admission.
- 6.6 A student admitted as per rule 2.1 should complete the M.Tech.(Integrated) Programme within a period of eight years from the date of admission.
- 6.7 A student admitted as per rule 2.2 or 2.3 should complete the B.Tech.programme within a period of six years from the date of admission.

7.0 ACADEMIC SCHEDULE OF B.Tech. / M.Tech. (Integrated) DEGREE PROGRAMMES:

- 7.1 Normally odd semester classes will be conducted from July to November of the year. The regular examinations for odd semester courses will be conducted during November - December (November examination) of the year. Similarly, even semester classes will be conducted during December - April. The regular examinations for even semester courses will be conducted during May - June (May examination) of the year. The arrear examinations for odd and even semester courses will be conducted during the November & May examinations. Students have to register

for the regular as well as all the standing arrear subjects in both the end semester examinations.

The summer term special examination (to be conducted after the even semester May examinations results are announced) during June - July is restricted to the 8th semester subjects for B.Tech. and 10th semester subjects for M.Tech. (Integrated) students.

8.0 REQUIREMENTS FOR SUCCESSFUL COMPLETION OF A COURSE AND EARNING CREDIT

- 8.1 Students must attend every lecture, tutorial and practical class. However, in order to provide for sickness and such other contingencies, a minimum attendance percentage has been prescribed for each course. Percentage of attendance of a student in a course will be the number of periods attended in that course divided by the number of periods actually conducted from the date of his/her admission and multiplied by 100. A student can appear for an end-semester examination for a particular course only when he/she has put-in a minimum attendance of 75% in that course during a semester.
- 8.2 A student should necessarily register for the end-semester examinations in all the regular and **applicable** arrear courses.
- 8.3 A student who has put -in an attendance less than 75% in a course during odd/even semester, will not be allowed to appear for the immediate odd/even semester examination in that course. In such a case, the candidate should repeat that

course during the next odd / even semester thereby losing one year.

- 8.4 There is no provision for a student to improve his/her attendance during the same semester.
- 8.5 Out of a total of 100 marks allotted for each course 50 marks are allotted for continuous internal assessment and 50 marks for the end semester examination.
- 8.6 The break-up for continuous internal assessment marks for any course is as follows:

MARKS PRACTICAL MARKS

First test	20	Pre-Lab work	10
Second test	20	Experimental work and observations	} 30
Third test	20		
Assignment, Seminar, Quiz	10	Viva-Voce	10

(Best two out of the three tests will be considered)

Total	50	Total	50
--------------	-----------	--------------	-----------

- 8.7 From the three monthly tests, the best two performances will be considered for CIA marks. The third monthly test will cover the entire syllabus.
- 8.8 A candidate is declared to have passed in a course if he/she secures a minimum aggregate of 50% in the continuous internal assessment marks and the end-semester examination marks put together.
- 8.9 A candidate who does not pass a course in the odd/even semester examination should register and appear for the subsequent arrear odd/even semester examination in that course and pass the same.
- 8.10 There is no provision for a student to improve his/her continuous internal assessment marks. However, **after completion of the entire B.Tech. Programme**, for all those students whose CIA is less than 50% of the specified CIA, in any particular

course, the score of the candidate in that particular course in the end semester examination alone will be taken into account by valuing the end semester examination paper for 100 marks. The candidate will be declared to have passed in that course if he/she secures 50% marks (the grade “D”) or more in the end semester examination alone. However, he/she is eligible for the award of only second class.

8.11 A candidate can be debarred from writing the examinations of a semester for unsatisfactory conduct.

9.0 EVALUATION OF THE ACADEMIC PERFORMANCE & PROMOTION

9.1 Grades are awarded to the students by adopting the following procedure:

- i) Students securing 50% marks and above in a course (continuous internal assessment marks and end-semester exam marks put together) but below 60% shall be awarded ‘D’ grade.
- ii) Students securing 60% and above but below 70% shall be awarded ‘C’ grade.
- iii) Students securing 70% and above but below 80% shall be awarded ‘B’ grade.
- iv) Students securing 80% and above but below 85% shall be awarded ‘A’ grade.
- v) Students securing 85% and above but below 90% shall be awarded ‘A+’ grade.
- vi) Students securing 90% and above shall be awarded ‘S’ grade.
- vii) Students securing less than 50% shall be deemed to have failed and shall be placed in ‘F’ grade.

9.2 'E' grade (exposure grade) will be awarded to a student who has absented himself/herself from writing the end semester or arrears examination but is otherwise eligible to write the examination. 'E' grade will be included for CGPA computations and will be counted along with 'F' grade for counting the number of arrears.

9.3 'R' grade is given to a student in a course if he/she has put-in less than 75% of attendance during odd/even semester in that particular course. A student with 'R' grade cannot register for higher semester courses and will have to repeat that course with 'R' grade during the next odd/even semester thereby losing one year.

9.4 The academic performance of every student, admitted to the institution, will be evaluated on a ten point scale grading system. The following Table indicates the qualitative assessment and point values of the grades on a ten point scale grading system:

GRADE	QUALITATIVE ASSESSMENT	POINT VALUE OF GRADE
S	Exemplary	10
A+	Outstanding	9
A	Excellent	8
B	Very Good	7
C	Good	6
D	Pass	5
F	Fail	2

9.5 Cumulative grade point average is calculated as follows:

Let 'C_i' be the credit assigned to ith course

Let 'P_i' be the grade point secured in the ith course

Let 'n' be the number of courses for which the student has registered for the examinations.

$$\text{CGPA} = \frac{(C_1P_1 + C_2P_2 + \dots + C_iP_i + \dots + C_nP_n)}{(C_1 + C_2 + \dots + C_i + \dots + C_n)}$$

10.0 CLASSIFICATION OF RESULT

10.1 Students admitted to the B.Tech. programme, securing a CGPA of 7.5 and above shall be deemed to have passed in first class with distinction provided all the courses are passed in the first attempt in the end semester examinations within the stipulated 8 semesters.

10.2 Students admitted to the M.Tech. (Integrated) programme, securing a CGPA of 7.5 and above shall be deemed to have passed in first class with distinction provided all the courses are passed in the first attempt in the end semester examinations within the stipulated 10 semesters.

10.3 Students admitted to the B.Tech. programme, who have passed all the courses securing a CGPA of 6.0 and above will be declared to have passed in first class provided all the courses are passed within the stipulated 8 semesters.

10.4 Students admitted to the M.Tech. (Integrated) programme, who have passed all the courses securing a CGPA of 6.0 and above will be declared to have

passed in first class provided all the courses are passed within the stipulated 10 semesters.

10.5 All other students who have passed all the courses securing a CGPA of 5.0 and above will be declared to have passed in second class.

10.6 A student who is eligible to be declared to have passed in first class with distinction as per para 10.1 shall be deemed to have passed with Honours provided he/she satisfies the following conditions.

- i) The student should study on his/her own four additional theory courses offered for the programme as elective or from any other B.Tech. programmes of SASTRA, approved by the Head of the Department and included in the list of honours courses declared by the University for the respective semester.
- ii) The student should register for the end semester examinations in these four courses and obtain at least a pass grade in the first attempt within the stipulated 8 semesters.
- iii) The student should have obtained a minimum CGPA of 7.5 at the end of the IV semester examinations and should enroll for the honours programme within the stipulated period from the start of V semester classes.
- iv) The student should choose one honours course in each of the V, VI, VII & VIII semesters from the list of honours courses declared by the University for the respective semester and branches.

11.0 CERTIFICATE COURSES

- 11.1 Each and every student is expected to register for two certificate courses of 2 to 3 weeks duration conducted by SASTRA during the period of his/her study. The first certificate course can be had during the first year summer vacation and the second certificate course can be had during the second year summer vacation.
- 11.2 During the third year summer vacation, the student is expected to undergo in-plant training in an industry and prepare for his/her ensuing project work.

12.0 SAVING CLAUSE / AUTHORITY

- 12.1 The Academic Council reserves the right to alter or amend or repeal or annul any or all of the rules and regulations.