

SONA COLLEGE OF TECHNOLOGY, SALEM-636 005
AUTONOMOUS COLLEGE UNDER ANNA UNIVERSITY, CHENNAI
REGULATIONS FOR B.E./B.Tech. DEGREE PROGRAMMES 2010R
AND ONWARDS

These regulations are applicable to all the candidates admitted into B.E./B.Tech. programmes from the academic session 2010-2011 onwards.

1. PRELIMINARY DEFINITIONS AND NOMENCLATURE

1.1 The regulations hereunder are subject to amendments as may be made by the Academic Council (AC) of the College from time to time, keeping the recommendations of the Board of Studies in view. Any or all such amendments will be effective from the date of amendment and will be applicable to the batches of students who are admitted to the programmes during the year in which amendments are made. They might be applicable even to those who are already undergoing the programmes, as may be decided by the AC.

1.2 DEFINITIONS

- I. "Academic Autonomy" means autonomy granted by the University Grants Commission (UGC) and Anna University, Chennai to Sona College of Technology in all aspects of conducting its academic programmes for promoting excellence;
- ii. "Autonomous College" means a College notified as an autonomous college by the University, as per the Anna University Autonomous College Statute, 2010;
- iii. "Commission" means University Grants Commission;
- iv. "Council" means All India Council for Technical Education;
- v. "Statute" means Anna University Autonomous College Statute, 2010;
- vi. "University" means Anna University, Chennai
- vii. "College" means Sona College of Technology, Salem;
- viii. "Programme" means Degree Programme, that is, B.E./B.Tech. Degree Programmes;

- ix. "Branch" means specialization in a programme like B.E. Degree Programme in Civil Engineering, B.Tech. Degree Programme in Information Technology, etc.
- x. "Course" means a subject either theory or practical identified by its course title and number, and which is normally studied in a semester, for example, Engineering Mathematics-1 (U10GE102), Fundamentals of Computing and Computer Programming (U10GE106), etc.

2. ADMISSION

- 2.1** Candidates seeking admission to the first semester of eight semester B.E./B.Tech. degree Programme and candidates who have acquired a Diploma in Engineering/Technology and who are therefore eligible for admission to the third semester of the B.E./B.Tech. degree Programme under lateral entry system, will be required to satisfy the conditions of admission prescribed by Anna University and Government of Tamilnadu at the time of admission.

3. ACADEMIC PROGRAMMES

3.1 Nomenclature of Programmes

The nomenclature and the abbreviations given below shall continue to be used for the degree programmes under the University, as required by the Council and the Commission:

- i. Bachelor of Engineering (B.E.) and
- ii. Bachelor of Technology (B.Tech.)

The branch/subject of specialization, if any, shall be indicated in brackets after the abbreviation;

e.g., B.E. (Mechanical Engineering)

3.2 Bachelor of Engineering (B.E.) degree programmes offered in

- i. Civil Engineering
- ii. Computer Science and Engineering
- iii. Electrical and Electronics Engineering
- iv. Electronics and Communication Engineering
- v. Mechanical Engineering

3.3 Bachelor of Technology (B.Tech.) degree programmes offered in

- i. Fashion Technology
- ii. Information Technology

4. STRUCTURE OF PROGRAMMES

- 4.1** Every programme will have a curriculum and syllabi consisting of theory and practical courses, project work, etc., as given below:

i. General core courses

- 1. Mathematics
- 2. Basic Sciences
- 3. Engineering Sciences
- 4. Humanities, Languages and Social Sciences

ii. Programme core courses

- 1. Engineering/Technology

iii. Elective courses in Engineering / Technology / Management / Entrepreneurship / Business Communication and allied fields

- 4.2** There shall be a certain minimum number of core courses and a sufficient number of elective courses that can be opted for by the student. The blend of different courses shall be designed in such a way that the student, at the end of the programme, would not only have been trained in his/her relevant professional field but would also have developed as a socially conscious human being.

4.3 CREDIT STRUCTURE

Credits are assigned to courses on the following basis:

- i. One credit for each lecture period per week
- ii. One credit for each tutorial period per week
- iii. One credit for each practical course of two periods per week
- iv. Fifteen credits for the final year project work of which five credits are for phase-I and ten credits for phase-II.

4.3.1 No semester shall have more than six lecture-based courses and three practical courses in the curriculum carrying a maximum of 27 credits as prescribed by the college.

4.3.2 The curriculum of any branch of the B.E./B.Tech. degree shall be designed to have a total of 210 - 220 credits for the award of the B.E./B.Tech. degree.

4.3.3 The minimum number of credits to be earned through successful completion of the course of study in the respective branches of B.E. and B.Tech. programme is 210-215, the exact number being specific to a particular branch of study.

4.3.4 The student admitted under lateral entry shall have to undergo course work like any other regular student admitted under autonomous scheme and earn a total minimum of 150 credits.

4.4 MEDIUM OF INSTRUCTION

The medium of instruction, examinations and project report shall be English, except for courses on languages other than English.

5. PROGRAMME DURATION

5.1 A student is ordinarily expected to complete the B.E./B.Tech. Programme in 8 semesters (four academic years) but in any case not more than 14 Semesters for HSC candidates and not more than 12 semesters for Lateral Entry Diploma Candidates.

5.2 Each semester shall normally consist of 90 working days or 450 periods, each of 55 minutes duration.

5.3 Considering all contingencies, the number of working days per semester shall not be less than 65 days. The Principal is given the discretionary powers to decide the number of working days in such contingencies. The Principal shall ensure that every teacher imparts instruction as per the number of periods specified in the syllabus concerned and that the teacher teaches the full content of the syllabus for the course being taught.

6. CURRICULAR FRAMEWORK

6.1 GENERAL ISSUES

6.1.1 The framework upon which a curriculum is based is important, as it sets the right direction for a degree programme and takes into account the type and quantum of knowledge to be acquired by a student to qualify for a degree in his/her chosen branch of study.

6.1.2 Besides this, it also helps in assigning the credits for each course, sequencing the courses semester-wise and finally arriving at the total number of courses to be studied and the total number of credits to be earned by a student to fulfill the requirements for conferment of a degree.

6.1.3 B.E./B.Tech. Degree Programme

The curricular framework for a B.E./B.Tech. Degree programme is given below:

Table 1: Credit Split-Up for Various Courses

S.No	Course Area	Average No.of Credits
1	Science	20
2	Mathematics	15
3	Management and Humanities	19
4	General Engineering	25
5	Core Engineering	110
6	Professional Elective courses	15
7	Departmental major project and seminar/paper presentation, etc	15
	Total	219

6.2 Every branch of the B.E. and B.Tech. programme will have a curriculum and syllabi for the courses, which will be updated according to requirements and approval by the AC.

7. CLASS COUNSELLOR (CC)

7.1 Every class of students of each course must have a CC who is a regular faculty of the department. The Head of the Department (HOD) will appoint CCs for all of the classes in their department on a rotational basis so that every faculty will periodically have the opportunity of being a CC for one class or another. The CCs will maintain all records of the class of students assigned to them and generally counsel them on maintaining good attendance, discipline and academic performance.

8. FACULTY ADVISER

8.1 To help students plan their courses of study and for general advice on the academic programme, the HODs of individual departments will attach a certain number of students to a teacher of the department who shall function as Faculty Adviser for those students throughout their period of study. Faculty Advisers shall advise the students under their care, monitor the courses undergone by them, check their attendance and progress and counsel them periodically. If necessary, the Faculty Adviser may also convey or discuss information on student academic performance and progress with the parents concerned.

9. CLASS COMMITTEE

9.1 Every class shall have a Class Committee consisting CC, teachers of the concerned class, student representatives and a chairperson who is not teaching the class. It is formed with the overall goal of improving the teaching-learning process. The functions of the Class Committee include

- 9.1.1 Solving problems experienced by students in the class room and in the laboratories
- 9.1.2 Clarifying the regulations of the degree programme and the details of rules therein
- 9.1.3 Informing the student representatives about the academic schedule including the dates of assessments and the syllabus coverage for each assessment

9.1.4 Informing the student representatives the details of regulations regarding weighting used for each assessment. In the case of practical courses (practical/drawing/project work/seminar etc.), the breakup of marks for each experiment/exercise/module of work, should be clearly discussed in the class committee meeting and informed to the students

9.1.5 Analyzing the performance of the students of the class after each test and finding the ways and means of solving problems, if any

9.1.6 Identifying weak students, if any, and requesting the teachers concerned to provide some additional help or guidance/ coaching to such weak students

9.2 The Class Committee for a class under a particular branch is normally constituted by the HOD.

9.3 The Class Committee shall be constituted on the first working day of any semester.

9.4 At least 4 student representatives (usually 2 boys and 2 girls) shall be included in the Class Committee.

9.5 The chairperson of the Class Committee may invite the Faculty adviser(s) and the HOD to the meeting of the Class Committee.

9.6 The Principal may participate in any Class Committee meeting of the institution.

9.7 The chairperson is required to prepare the minutes of every meeting, submit the same to Principal within two days of the meeting and arrange to circulate it among the students and teachers concerned. If there are some points in the minutes requiring action by the Management, the same shall be brought to the notice of the Management by the Principal.

9.8 The first meeting of the Class Committee shall be held within one week from the date of commencement of the semester, in order to inform the students about the nature and weighting of assessments within the framework of the regulations. Two subsequent meetings may be held in a semester at suitable

intervals. During these meetings, the student members representing the entire class shall meaningfully express the opinions and suggestions of the other students of the class to improve the effectiveness of the teaching-learning process.

10. COURSE COMMITTEE FOR COMMON COURSES

10.1 Each common theory course offered to more than one discipline or group shall have a "Course Committee" comprising all the teachers teaching the common course with one of them nominated as Course Coordinator. The nomination of the Course Coordinator shall be made by the HOD/Principal depending upon whether all the teachers teaching the common course belong to a single department or to several departments. The 'Course Committee' shall meet as often as necessary and ensure uniform evaluation of the tests through a common evaluation scheme. Wherever it is feasible, the Course Committee may also prepare a common question paper for the test(s).

11. REQUIREMENTS FOR COMPLETION OF A SEMESTER

11.1 A candidate who has fulfilled the following conditions shall be deemed to have satisfied the requirements for completion of a semester:

11.1.1 He/she has to his/her credit not less than 80% overall attendance in the semester.

11.1.2 However, a candidate who ends a semester with attendance between 70% and 79% due to medical reasons (hospitalization/accident/specific illness) or due to participation in College/State/National/International level co-curricular and extra-curricular activities, sports and games, paper or project presentation events with prior permission of the Principal, shall be given exemption from the prescribed attendance requirement and he/she shall be permitted to appear for the current semester examinations.

11.1.3 His/her progress has been satisfactory, and

11.1.4 His/her conduct has been satisfactory

11.1.5 However, candidates who do not qualify to appear for the Semester End Examination (SEE) of any semester for want of attendance and/or progress and/or conduct, have to register for and redo that semester programme with the prior approval of the Principal.

12. QUESTION PAPERS

12.1 **Achievement Testing:** For effective achievement testing of students in a course, a good question paper needs to be used as the principal tool. This makes it necessary for the question papers used at Continuous Internal Evaluation (CIE) and SEE to:

- i. Have clear and complete instructions to the candidates;
- ii. Be unambiguous and free from any defects/errors;
- iii. Emphasize knowledge testing, problem solving and quantitative methods;
- iv. Contain adequate data/other information on the problems assigned; and,
- v. Cover all sections of the course syllabus uniformly.

12.2 **Question Paper Planning:** The above requirements make it necessary for a question paper to cover the entire syllabus, with a provision for the students to answer questions from the full syllabus. This factor shall be taken note of by the Board of Examiners, while planning the question papers.

Besides, it is also necessary for the course syllabi to have well-defined course objectives, be defect-free and be properly unitized (or modularized) enabling the setting of good question papers to cover the whole syllabus. These aspects have to be taken into account, in particular, by the Board of Studies.

12.3 **Typical Question Paper:** The questions to be included in the CIE and SEE question papers can be of two types as explained below and the subject teachers as well as the external examiners shall have to be well trained to set them.

12.3.1 Multiple Choice Questions with each question to be answered by tick marking the correct answer from the choices (commonly four) given against it; Short answer

questions with each question to be answered in one or two sentences only. However, subjects like Technical English will have objective and short descriptive type questions. These questions are useful in the testing of knowledge, skills, comprehension, application, analysis, synthesis, evaluation and understanding of the students; However, Question Papers for CIE and SEE shall include no more than 40% of marks in this type.

12.3.2 Comprehensive questions having all questions of the regular type to be answered in detail; Such questions would be useful in testing the overall achievement and maturity of the students in a subject through long-answer questions relating to theoretical/practical knowledge, problem solving, application and quantitative evaluation.

13. ASSESSMENT PROCEDURE – TESTS AND EXAMINATIONS

13.1 For each theory course, the assessment pattern for CIE shall be as illustrated in Table 2:

Table 2: Assessment Pattern for CIE

I – Continuous Internal Evaluation (CIE)				
S.No	Assesment	Details	What is Assessed	Marks for CIE
1	CIE Test 1	1-hr, Unit-1 Contents, 30-marks	Student learning at the six levels of Bloom's Taxonomy, especially at the higher-levels like application, analysis, synthesis and evaluation	Mean of 5 test marks reduced to 15
2	CIE Test 2	1-hr, Unit-2 Contents, 30-marks		
3	CIE Test 3	1-hr, Unit-3 Contents, 30-marks		
4	CIE Test 4	1-hr, Unit-5 Contents, 30-marks		
5	CIE Test 5	1-hr, Unit-5 Contents, 30-marks		
6	Assignment	Course-related problem-solving, new design creation, case-study, programming, mini-project, etc	Student skills in application, analysis, synthesis, evaluation, etc	5
7	Final Exam (FE)	3-hr, Units 1-5, 100-marks	Student learning at all six levels	5
CIE Total				25

II – Attendance				
8	a) All students must have at least 90% attendance in theory and lab classes. b) Minimum 80% attendance is a must for getting hall ticket for the SEE c) Minimum 70% attendance required in case of certified leave due to prolonged illness/exceptional sports participation			-
III – External Evaluation				
9	Semester-End Exam (SEE)	3-hr, Units 1-5, 100-marks	Student learning at all six levels	75
Grand Total				100

13.2 In each practical course, the assessment pattern will be as follows:

Table 3: Assessment Weighting

Assessment	Marks
CIE	25 (20 marks for CIE and 5 marks for attendance)
SEE	75

13.2.1 The assessment for practical courses will be based on supervision of students' work, their performance in viva-voce examinations and group discussions, the quality of their work as prescribed through practical manual and an SEE that requires the student to perform an experiment and submit its results.

13.2.2 For design and drawing subjects, the duration of assessment test/SEE may be different from other theory subjects and this will be stated in the respective curriculum.

13.2.3 In the case of project work, a committee consisting of the Project Coordinator (appointed by the HOD) and the project guide will carry out the continuous assessment based on at least three reviews. In case the Project Coordinator or the HOD happens to be the guide of the students, the HOD will nominate another faculty to carry out the continuous assessment for those students. After the project report is submitted by the student, an evaluation of the project and viva-voce examination will be conducted as the SEE by a panel consisting of the Project Coordinator, project guide and a faculty member from the allied department or an

external examiner from an educational institution/industry.
The weighting for both the CIE and SEE shall be 50 and 150 marks respectively.

13.2024
13.215
13.3 ATTENDANCE

13.3.1 Every teacher is required to maintain a Faculty Record Book (FRB) consisting of attendance marked at each lecture or practical or project work class, the test marks and the record of class work (topics taught), separately for each course. This should be submitted to the HOD periodically (at least three times in a semester) for checking the syllabus covered, the test marks and attendance. The HOD shall put his/her signature and date in the FRB after due verification. At the end of the semester, the FRB will be verified by the Principal who will also ensure safe custody of the document for atleast five years.

13.4 SEMESTER END EXAMINATIONS (SEE)

13.4.1 The SEE shall ordinarily be conducted between November and January during the odd semesters and between April and June in the even semesters. The maximum marks for each theory and practical course shall be 100 comprising 25 marks for CIE and 75 marks for the SEE.

13.4.2 Examiners for setting SEE question papers for theory courses, valuating SEE answer scripts, conducting practical examinations and evaluating project works shall be appointed by the COE after obtaining approval from the AC of the College.

13.5 PASSING REQUIREMENTS

A candidate who secures not less than 50% of total marks prescribed for the courses with a minimum of 50% of the marks prescribed for the SEE in both theory and practical courses (including Project work), shall be declared to have passed the Examination.

13.6 WITHDRAWAL FROM EXAMINATION

13.6.1 A candidate may, for valid reasons, be granted permission to withdraw from appearing for any one or more courses of SEE. Also, only one opportunity for withdrawal will be permitted for the SEE in which withdrawal is sought.

13.6.2 An application for withdrawal shall be valid only if the candidate is otherwise eligible to write the examination and if it is made prior to the commencement of the SEE in that course or courses and also recommended by the HOD concerned.

13.7 COURSE REPETITION

A student who withdraws in a particular course has to repeat it compulsorily when the course is offered in the subsequent semester. A course successfully completed cannot be repeated.

13.8 REVALUATION OF ANSWER PAPERS

In the case of any student feeling aggrieved over the valuation, he/she can contact the Controller of Examinations (COE) within two days of the announcement of the results, to apply for revaluation. However, revaluation is not permitted for practical courses and project work.

13.9 SUPPLEMENTARY EXAMINATIONS

Supplementary examinations for the failed candidates of any course will be conducted after the regular SEE result. They will be conducted only for current semester failures and will be conducted within a week of the announcement of the revaluation results. Supplementary Exams will not be conduct for those students absent for SEE.

14. PERFORMANCE ANALYSIS COMMITTEE (PAC)

14.1 The PAC will consist of the same members as the Class Committee but including the HOD and excluding the student members. An external member from an allied department shall be nominated by the Principal to the PAC. A meeting of the PAC shall be held within seven days of the last examination of the SEE to analyze the students' course-wise performance in all the courses of study and finalize the grade ranges for each of the students and forward the

statement of grades to Principal/AC through the HOD within two days. The PAC, by collective wisdom, should ensure that the clustering/grading/pass-fail decisions have been reasonably balanced.

14.2 The FRB of all the courses with all the internal assessment marks, end-semester marks, grades and grade-ranges entered in the register is also to be sent to Principal/AC immediately by the respective HODs. The Principal/AC/COE shall go through the statement of grades (and the FRB). In the event of any problem, the PAC is authorized to take appropriate action. The finalized list shall then be conveyed to the PAC. It is proposed that PAC will then arrange to display a copy of the statement of grades in the departmental notice board. It is expected that the results will be displayed within a day of the date of finalization of the grades. Finalization of grades for the supplementary examinations shall be made by the HOD/COE. The results of these examinations shall also be arranged to be displayed in department notice board.

15. GRADING

15.1 All assessments of students will be done on the basis of marks. The concerned subject teacher can suggest suitable grades for students based on discrete clusters of marks. The Performance Analysis Committee (PAC) shall meet within seven days of completion of the examinations, to analyze the relative cumulative performance of students in all tests/examinations (CIE and SEE) of the courses in any semester and finalize the letter grades to be assigned to them for each course. The letter grades to be used and the corresponding grade points are as follows:

Table 5: Grades, Grade Points and Range of Marks

Grade	Grade Points	Range of Marks
S	10	91-100
A	9	81-90
B	8	71-80
C	7	61-70
D	6	57-60
E	5	50-56
U	0	<50

Students scoring less than the passing minimum (decided on relative basic) marks shall be deemed to have failed and be given "U" grade. A student having "U" grade need not redo the course, but can appear for the supplementary examination for the courses organized at the start of the following semester. The Cumulative Grade Point Average (CGPA) will be revised accordingly. The grade acquired by the student later will be indicated in the grade card of the appropriate semester. A candidate who earns a minimum of 5 grade points in a course shall be declared to have successfully completed the course.

16. GRADE CARDS

16.1 After the results are declared, Grade Cards will be issued to each candidate which will contain the list of courses for that semester and the grades obtained by the candidate. The Grade Point Average (GPA) for each semester will be calculated only for those students who have passed all the courses of that semester. Similarly, CGPA up to any semester will be announced only for those students who have passed all the courses up to that semester. GPA is the ratio of the sum of the products of the number of credits of a course (C_i) and the grade points scored in that course (GP_i), taken for all the courses, to the sum of the number of credits of all the courses (n) in the semester.

$$GPA = \frac{\sum_1^n C_i \times GP_i}{\sum_1^n C_i}$$

where n is the number of courses in that semester.

On successful completion of the programme, the CGPA will be calculated as follows:

$$CGPA = \frac{\sum_1^N C_i \times GP_i}{\sum_1^N C_i}$$

where C_i is the credit and GP_i is the grade point obtained by the candidate and N is the total number of courses for the entire programme.

17. CLASSIFICATION OF DEGREES AWARDED

17.1 First Class with Distinction: A candidate who qualifies for the award of a degree, having passed all the courses of study of all the eight semesters (six semesters in the case of lateral-entry candidates) at the first opportunity within eight consecutive semesters (six consecutive semesters for lateral entry candidates) after the commencement of his/her study and securing a CGPA of 8.5 and above, shall be declared to have passed the examinations in the First Class with Distinction. For this purpose, withdrawal from any examination will not be construed as an opportunity for appearance in the examination. Further, any authorized break of study will not be counted for the purpose of classification.

17.2 First Class: A candidate who qualifies for the award of a degree, having passed all the courses of study of Semesters 1 to 8 (Semesters 3 to 8 for lateral-entry candidates) within a maximum period of ten consecutive semesters (eight consecutive semesters for lateral-entry candidates) after commencement of his/her study and securing a CGPA of 6.75 and above shall be declared to have passed the examinations in the First Class. Any authorized break of study will not be counted for the purpose of classification.

17.3 Second Class: All other candidates who qualify for the award of a degree shall be declared to have passed in the Second Class.

18. CONSOLIDATED STATEMENT OF GRADES

18.1 At the end of the programme, all successful candidates will be furnished with a consolidated statement of grades which will contain the following particulars:

- i. Grades in the courses of all the semesters
- ii. CGPA
- iii. Classification (First Class with Distinction/First Class/Second Class)

19. ELIGIBILITY FOR THE DEGREE

19.1 A candidate shall be eligible for the award of the degree of B.E./B.Tech. only if the candidate:

- i. has undergone the prescribed programme of study by earning the minimum total number of credits specified in the curriculum of the relevant programme of study within the maximum specified duration of time.
- ii. has no dues payable to the Institution, Library, Hostels, etc. and has no disciplinary action pending against him/her.

19.2 Then, the provisional degree certificate and the actual degree certificate will be awarded by Anna University, Chennai.

20. ATTENDANCE, DISCIPLINARY AND GRIEVANCE COMMITTEE

20.1 This committee is constituted for the smooth functioning of the various autonomous under-graduate programmes of the institute and shall consist of the following members:

Table 6: Attendance, Disciplinary and Grievance Committee

Principal	Convener
All HODs	Member(s)
A Senior Professor (from any department)	Member
A Senior Assistant Professor (from any department)	Member

20.2 The Committee will look into matters relating to condonation of attendance shortages of candidates and all grievances and disciplinary problems of the students relating to malpractices in CIE, SEE, etc. The committee will meet as and when necessary and send its recommendations to the AC/COE for consideration/ratification/approval.

21. MALPRACTICES IN TESTS AND EXAMINATIONS

21.1 If a candidate indulges in malpractice in any of the CIE and SEE, he/she shall be liable for punitive action as prescribed by the college from time to time.

22. INDUSTRIAL TRAINING

22.1 The student should undergo industrial training for a minimum total period of 2 weeks during 2nd and 3rd year vacation periods and submit a report on the training to the HOD concerned.

23. INDUSTRIAL VISIT

23.1 Every student is required to undergo one industrial visit starting from the third semester of any UG programme. A teacher shall take the students out to at least one industrial visit in an academic year.

24. NCC/NSS/NSO/YRC TRAINING

24.1 Further, every student shall be involved in any one of the character development programmes such as NCC/NSS/NSO/YRC and undergo the training during the first year of study.

25. DISCIPLINE

25.1 Every student is required to observe disciplined and decorous behavior both inside and outside the college and not to indulge in any activity which will tend to bring down the prestige of the college. The Principal shall constitute a Disciplinary Committee consisting of Principal and two HODs, of which one should be from the faculty to which the student belongs, to enquire into the acts of indiscipline and notify the Principal about the disciplinary action recommended, for approval. If a student indulges in malpractice in any of the CIE/SEE, he/she shall be liable for punitive action as prescribed by the college from time to time.

26. REVISION OF REGULATION AND CURRICULUM

26.1 The college shall, occasionally, revise, amend or change the regulations, scheme of examinations and syllabi if found necessary.

Notes