SETHU INSTITUTE OF TECHNOLOGY, PULLOOR, KARIAPATTI – 626115

(An Autonomous Institution, affiliated to Anna University, Chennai)

2015 REGULATIONS for B.E. / B.Tech. Degree Programmes

These regulations are applicable to all candidates admitted into B.E./B.Tech. Degree Programmes from the academic year 2017 – 2018.

1. PRELIMINARY DEFINITIONS AND NOMENCLATURE

In these regulations, unless the context otherwise specifies:

i. **"University"** means Anna University, Chennai.

ii. "**Programme**" means UG Degree Programme that is B.E./ B.Tech. Degree Programme.

iii. **"Branch"** means specialization or discipline of B.E./B.Tech. Degree Programme like Mechanical Engineering, Information Technology, etc.,

iv. "**Course**" means a theory or practical subject that is normally studied in a semester, like Mathematics, Physics, etc.,

v. **"Credit"** means a numerical value allocated to course units to describe the student's workload required per week.

vi. **"Grade"** means the letter grade assigned to each course based on the range of marks specified.

vii. **"Grade point"** means a numerical value (0 to10) allocated based on the grade assigned to each course.

viii. "**CBCS**" means Choice Based Credit System

ix. "**Controller of Examinations**" means the authority of the Institution who is responsible for all the activities of the Examinations of this Institute.

x. "**Head of the Institution**" means the Principal of the College / Institution / who is responsible for all the academic activities of the College / Institution and for implementation of relevant rules of this Regulations.

xi. "**Head of the Department**" means Head of the Department concerned

2 QUALIFICATIONS FOR ADMISSION

2.1 Admission to First Semester

The candidates seeking admission for the first semester to the eight semester **B.E. / B.Tech.,** degree programme:

i. Should have passed the Higher Secondary Examinations of (10+2) in the academic stream with Mathematics, Physics and Chemistry as main courses of study conducted by the Government of Tamilnadu or an examination accepted by the syndicate of Anna University as equivalent there to. They should also satisfy other eligibility rules as prescribed by the Anna University and Director of Technical Education, Government of Tamil Nadu, Chennai, from time to time.

(OR)

ii. Should have passed the Higher Secondary Examination of Vocational Stream (Vocational groups in Engineering/Technology) as prescribed by the Government of Tamil Nadu.

2.2 Lateral Entry Admission

i. The candidates who possess the Diploma in Engineering / Technology awarded by the State Board of Technical Education, Tamil Nadu or its equivalent are eligible to apply for admission to the third semester of B.E. / B.Tech., in the branch corresponding to the branch of study.

(OR)

ii. The candidates who possess the Degree in Science (B.Sc.) (10+2+3 stream) with mathematics as a course at the B.Sc. level are eligible to apply for admission to the third semester of B.E. / B.Tech., Such candidates shall undergo two additional Engineering courses in the third and fourth semesters or fourth and sixth semesters respectively as prescribed by the respective Chairman of Board of Studies.

3 UG PROGRAMMES OFFERED

The following Programmes and Branches of study approved by Anna University, Chennai, and All India Council for Technical Education, New Delhi, are offered by the College.

TABLE I : PROGRAMMES OFFERED

Programme	Branch
B.E.	Mechanical Engineering Computer Science and Engineering Electronics and Communication Engineering Electrical and Electronics Engineering Civil Engineering Agriculture Engineering Biomedical Engineering
B.Tech.	Information Technology Chemical Engineering

4. STRUCTURE OF PROGRAMMES

Choice Based Credit System (CBCS), is the solution for the transformation from the traditional teacher oriented education to a student-centred education. Taking responsibility for their own education in this way, students can benefit the most from all the available resources. The semester system accelerates the teaching-learning process and enables vertical and horizontal mobility in learning.

The credit based semester system provides flexibility in designing curriculum and assigning credits based on the course content and hours of teaching. The choice based credit system facilitates the students to take courses of their choice, learn at their own pace, undergo additional courses and acquire more than the required credits, and adopt an interdisciplinary approach to learning

The curriculum of every programme is designed with total number of credits ranging from *169 to 175*

4.1 Categorization of Courses

Every B.E./B.Tech Degree Programme will have a curriculum with Syllabi consisting of theory and Practical courses that shall be categorized as given in Table.I

TABLE-II CATEGORY OF COURSES

Course Category	Range of Total credits (%) as per AICTE
Humanities and Science	5-9%
Basic sciences	14-17%
Engineering Sciences	14-19%
Professional Core	35-41%
Professional Electives	10%
Open Choice Electives	5%
Project work	8%
Mandatory	Pass/fail

Humanities and Science Courses are to be studied compulsorily by the students of all the branches. Environmental Sciences, English, Professional Ethics and Project Management and Finance Courses fall under this category.

Basic sciences and Engineering Sciences Courses are to be studied compulsorily by the students of all the branches.

Professional Core Courses (PCC) are to be studied compulsorily by a student in his/her chosen discipline of study. It also includes the Employability Enhancement Courses such as Project, Seminar and In-plant Training/Internship.

Professional Elective Courses (PEC) are the advanced courses which provide an expanded scope of a given programme.

Open Elective Courses (OEC) are the Inter-disciplinary courses. The students shall study the open elective courses offered by other departments through regular mode.

Mandatory Courses (MAC) are to be studied compulsorily by all the students irrespective of the programme.

4.2 Credit System

Each core and elective course is normally assigned certain number of credits with 1 credit per lecture period per week, 1 credit for 2 periods of tutorial / laboratory/ practical /seminar / project work per week. A period shall have a minimum of 50 minutes.

TABLE-III LTPC DISTRIBUTION

Type of course	Lectures (Periods/ week)	Tutorials (Periods/ week)	Practical work (Periods/ week)	Credits (L:T:P)	Total credits	Total (Periods/ week)
1 credit	1	0	0	1:0:0	1	1
	0	0	2	0:0:1	1	2
2 Credit	0	0	4	0:0:2	2	4
	2	0	0	2:0:0	2	2
3 Credit	3	0	0	3:0:0	3	3
	2	0	2	2:0:1	3	4
	2	2	0	2:1:0	3	4
4 Credit	3	2	0	3:1:0	4	5
	3	0	2	3:0:1	4	5
	4	0	0	4:0:0	4	4

4.2.1 Credit Replacement Courses

i. **Internship:** One credit shall be assigned to two weeks of field training programme /Internship/ Industrial/Practical Training/summer project, undergone in a Company / Organization / Reputed institutions. It shall be for maximum period of 1 month with 2 credits during summer or winter vacation.

ii. **Industry Designed Courses:** One credit courses designed in collaboration with the industry/ research organizations/higher learning institutions shall be offered to the students.

iii. **R&D Project - I:** One credit shall be assigned for R&D Project -I that can be taken-

up by a student who can take extra work load. The student shall carry out a part of funded research and development project, Consultancy project, Industry Institute Interaction activities or any other internal revenue generation activities of the Institution during his/her 2nd or 3rd year of the programme, under the guidance of a faculty for a period of five to six months duration, including the summer or winter vacation periods. The student shall work with the R&D Supervisor with the prior approval of the Head of the Institution through Head of the Department.

iv. **R&D Project - II:** Three credits shall be assigned for R&D Project -II that can be taken-up by a group of students. It should be for national /international level project design and development contest conducted by reputed institution/organization. The students can take-up this with the prior approval of the Head of the Institution through Head of the Department.

v. **SWAYAM Self Learning online Courses:** 'SWAYAM platform' is an IT platform developed and made functional by the Ministry of Human Resource Development of Government of India for the purpose of offering online learning courses on the MOOCs pattern. Students can register online learning Courses offered by SWAYAM with the approval of Head of the Department. The course content, credit weightage, Internal and External evaluation pattern are decided by course offering Institution/Organization. A committee constituted by the Head of the Institution shall assign equivalent credit weightage, equivalent grade for the courses based on the marks/grade earned through these courses.

vi. **Elective Courses in PG Curriculum:** UG students can opt for elective courses prescribed in the curriculum of appropriate PG programme if he/she has CGPA of 8 and above upto 5th semester as professional elective course. The student opting for PG elective has to obtain prior permission from the Head of the Institution before course registration. A committee constituted by the Principal consisting of Dean- Academics, Head of the Department of the student, PG Program Head and one subject expert from the College, shall recommend to the Head of the Institution about the registration of PG elective as professional elective. Based on the recommendation of the committee, the Principal shall grant permission to the student for course registration. The student shall attend the PG elective classes along with PG students or the faculty concerned shall separately conduct the stipulated periods given in the PG curriculum

If a student gains totally 3 credits through the above given courses, he/she can opt to exempt from one elective course by submitting Elective Exemption form in advance to the concern semester. However, a student shall opt only upto 20% of the total courses being offered in a particular program in a semester through the online learning courses. If it is less than 3 credits the credit earned can be treated as additional credit for CGPA improvement or he/she can choose withdrawal from CGPA calculation as given in clause 4.2.3

4.2.2 Additional Credit Courses

i. **Engineering Aptitude Proficiency:** The students are expected to enhance their Engineering Aptitude Proficiency through self-learning. The students can opt to appear for Graduate Aptitude Test in Engineering (GATE), an all-India examination or Comprehensive Engineering Aptitude Test (CEAT), a college level examination.

Graduate Aptitude Test in Engineering (GATE) is an all-India examination that primarily test the comprehensive understanding of various undergraduate subjects in engineering and science. The assessment carried out in the GATE is considered as a comprehensive test in engineering subjects in relevant discipline. A student can earn additional credits if he/she obtains qualifying marks and above in his/her discipline and category in GATE examination and 'O' grade shall be awarded for such candidates with the weightage of 5 credits. No grade shall be awarded below qualifying marks in GATE examination. No separate internal assessment and End Semester Examination will be conducted.

(or)

Comprehensive Engineering Aptitude Test (CEAT) is college level examination that primarily test the comprehensive understanding of various undergraduate subjects in engineering and science. The assessment carried out in the CEAT is considered as a comprehensive test in engineering subjects in relevant discipline. A student can earn additional credits if he/she obtains qualifying marks and above in his/her discipline and category in CEAT examination and 'O' grade shall be awarded for such candidates with the weightage of 3 credits. No grade shall be awarded below qualifying marks in CEAT examination. No separate internal assessment and End Semester Examination will be conducted.

ii. **Self Learning online Courses:** One to 3 credit shall be assigned for self learning online courses conducted by reputed Institutions/organizations other than Swayam platform. The of credits shall be assigned based on the duration of the course. Self learning online courses can be considered as Credit Replacement Courses on the request of the student. The student shall submit a request to the Principal with the approval of HoD. The Principal shall constitute a committee to scrutinize the course content, evaluation procedure and credits of the Self learning online course and submit its recommendation to the Principal. Based on the recommendation of the committee, the Principal shall grant permission to consider the Self learning online course as Credit Replacement Course.

iii. **Certificate Course:** One credit or two credits shall be allotted for globally acclaimed technical certificate Course facilitated by the Institution like CISCO, Oracle, EMC2 etc.

iv. **Self Learning Elective Courses :** A student can register one additional programme elective course or open elective course already existing in curriculum as a self-learning course in a semester from 5th semester onwards , if he/she has CGPA of 8 and above during the course registration and also not exceeding the credit maximum limit per semester

4.2.2.1. The additional credit earned shall be considered for the classification of the degree (vide clause 17)

4.2.3 If necessary, credit earned through additional credit courses/ credit replacement courses can be withdrawn from CGPA calculation. The student has to submit an exemption request to Controller of Examination with the approval of Head of the Department before the registration of end semester examination of the final semester of the programme. In any case, the credit awarded for the above course will not be considered after the exemption request.

4.2.4 Mandatory Courses

In addition, the students should undergo any Three Non-CGPA mandatory courses listed in Table-IV one from each category. Credits are not assigned for mandatory courses, however securing a pass is necessary for the award of degree. The details for assessing these activities are given in Annexure-I

TABLE - IV   CATEGORY OF NON – CGPA MANDATORY COURSES

Category	Courses
Personality and Social Development	Sports
	Extra Curricular Activities
	National Service Scheme
	Club Activities (ECO Club, Red Ribbon Club, YRC, Photography Club)
Skills Development	Co-Curricular Activities
	English Proficiency Certificate such as BEC, TOFEL, IELTS
	Soft Skills and Aptitude
	Aptitude Proficiency certificate such as GRE, GMAT, CAT
	Intellectual Property Rights
Value Education	Value Education and Human Rights

4.3 The courses shall be so designed that the candidate at the end of the programme would have been trained not only in his / her relevant professional field but also would have developed as a socially conscious human being.

4.4 The medium of Instruction, Examinations and Project report shall be English

5. COURSE REGISTRATION

5.1 Through Faculty advisor/Proctor, student can get information about academic program, eligibility, prerequisite and availability of courses that can be registered for the particular semester by considering the academic background and career objectives of   the student.

5.2 Student shall register for a set of courses for the semester based on the advice of the Faculty advisor/Proctor.

5.3 All the students have to register for the courses on or before the seventh working day of the current semester

5.4 The student has the option of registering additional courses or dropping existing courses with the approval of the HoD and the total number of credits of such courses cannot exceed seven credits per semester.

5.5 If a student finds that he/she has registered for the additional courses than his/her capability to study in a semester, he/she can withdraw one or more of courses within 15 days of the commencement of the semester

5.6 The maximum number of students to be registered in each course shall depend upon the infrastructure available and the minimum number of students registered for the course.

5.7 If a student has failed in a professional elective or open elective, the student may register for the same or any other professional elective or open elective course in the subsequent semester in regular mode.

5.8 Each student shall register for all the courses prescribed in the curriculum of first two semesters of the concern programme.

6. DURATION OF THE PROGRAMME

6.1 The minimum and maximum period of the B.E./B.Tech.Degree Programme for various category are given below

- For HSC candidates minimum of 8 semesters and maximum of 10 semesters
- Lateral Entry Diploma / B.Sc. Candidates minimum of 6 semesters and maximum of 8 semesters

However in any case not more than 16 Semesters for HSC candidates and not more than 14 semesters for Lateral Entry Diploma / B.Sc. Candidates.

6.2 For the purpose of regulation, the academic year will be divided into two semesters, the winter semester normally spanning from June to November and the summer semester from December to May. The courses in the curriculum of the winter semester shall be conducted in winter semester only and that of the summer semester shall be conducted in summer semester only.

6.3 Each semester shall normally consist of 90 working days. In any contingent situation, the number of working days per semester shall not be less than 65 days. The

Principal / Head of the Department shall ensure that every teacher imparts instruction as per the number of hours / periods specified in the syllabus and that the teacher teaches the full content of the specified syllabus for the course being taught.

6.4 The Head of the Institution / Principal may instruct the Head of the Departments to conduct additional classes for improvement, special coaching, conduct of model test etc., over and above the   specified periods for each course. But for the purpose of calculation of attendance requirement or writing the end semester examinations (as per clause 7) by the students, the periods conducted for each course within the given academic schedule as specified in the curriculum for each course alone shall be taken into account and the percentage of attendance of each course shall be calculated accordingly. The academic schedule normally commences from the opening/reopening day specified by the Head of the Institution for a particular semester and ends with the previous working day of the end semester examination.

7. REQUIREMENTS FOR COMPLETION OF A SEMESTER

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

7.1.1 Ideally every candidate is expected to attend all classes and secure 100% attendance. However, in order to allow for certain unavoidable reasons, a candidate is expected to have at least 75% attendance in each course he/she registered in the particular semester, except self-learning courses.

7.1.2 A candidate who could not secure 75% attendance in each course he/she registered (except self-learning courses) in the current semester but has secured 65% and above due to medical reasons (hospitalization / accident / specific illness) or participation in extracurricular activities shall be permitted to appear for the current semester examinations with the approval of the Principal on payment of condonation fee fixed by the authorities from time to time. Medical / Participation certificate needs to be submitted along with the leave application.

7.1.3 The conduct of the candidate is satisfactory.

7.2 Candidates who do not complete the semester as per clause 7.1 shall not be permitted to appear for the examinations at the end of the semester and he/she has to register for the courses again.

8. REQUIREMENTS FOR APPEARING FOR END SEMESTER EXAMINATIONS

A candidate shall normally be permitted to appear for the end semester examinations of the current semester if only,

a) he/she satisfies the requirements prescribed above in clause 7.1

b) he/she has paid the examination fees and has registered for the examinations for all the courses of the current semester and all the arrear courses, if any.

Registration is mandatory for the current semester examinations as well as for the arrear examinations, failing which the candidate will not be permitted to register for any course in the next semester. A candidate, who has already appeared for any course in a semester and passed in the examination, is not entitled to reappear for the same course for improvement of grades/ marks.

9. PROVISION FOR WITHDRAWAL FROM END SEMESTER EXAMINATIONS

9.1 A candidate may, for valid reasons, be granted permission to withdraw from appearing for the end semester examination in any course or courses for only one semester examination during the entire duration of the degree programme.

9.2 Withdrawal application shall be valid only if the candidate is otherwise eligible to write the examination and should be submitted to the Principal prior to the last examination of that semester recommended by the Head of the Department.

9.3 Withdrawal shall not be treated as an attempt for the purpose of classification (vide clause17).

9.4 Withdrawal is permitted for the end semester examinations in the final semester, only if the period of study the student concerned does not exceed 5 years as per clause 17.1

10. TEMPORARY BREAK OF STUDY FOR A PROGRAMME

10.1 A candidate is normally not permitted to temporarily break the study. However, if a candidate intends to temporarily discontinue the programme in the middle for valid reasons (such as accident or hospitalization due to prolonged ill health) and to rejoin the programme in later semester, he/she shall apply in advance to the Principal, through the Head of the Department, stating the reasons there of, in any case, not later than the last date for registering for that semester examination.

10.2 Break of Study shall be granted only once for a maximum of one year during the entire period of study of the degree programme however, in extraordinary situation the candidate may apply for additional break of study not exceeding another one year by paying prescribed fee for break of study.

10.3 The candidate permitted to rejoin the programme after break shall be governed by the rules and regulations in force at the time of rejoining.

10.4 The duration specified for passing all the courses, for the purpose of classification vide clause 17.1 and 17.2, shall be increased by the period of such break of study permitted.

10.5 The total period of completion of the programme reckoned from the commencement of the semester to which the candidate was admitted shall not exceed the maximum period specified in **clause 6** irrespective of the period of break of study in order to qualify for the award of the degree.

10.6 If any candidate is detained for want of requisite attendance or due to disciplinary action, the period elapsed in that semester shall not be considered as permitted 'Break of Study'.

11 SYSTEM OF EXAMINATION

11.1 Performance in each course of study shall be evaluated based on continuous internal assessment throughout the semester and end semester examination at the end of the semester.

11.2 The end semester examination for theory course having 3 and more credits, and practical course (including project work) shall be evaluated for a maximum of 100 marks.

    11.2.1 For all theory courses the continuous internal assessment will carry 40 marks while the end semester examination will carry 60 marks and for all practical courses the continuous internal assessment will carry 50 marks while the end semester examination will carry 50 marks.

    11.2.2. For project work/Technical Project/R&D-project I/R&D-project II/ the continuous internal assessment will carry 50 marks while the end semester examination will carry 50 marks.

    11.2.3 All mandatory courses shall have continuous internal assessment only.

11.3 One credit theory courses shall have minimum of 1 hour end semester examination, two credit theory courses shall have minimum of 2 hours end semester examination and theory courses are of more than 2 credits shall have maximum of 3 hours end semester examination. The industry designed courses are considered as theory/practical courses as stipulated in the curriculum.

11.4 The end semester examination (theory and practical) shall normally be conducted between October and December during the winter semesters and between April and June during the summer semesters.

11.5 The question pattern for the theory course which has 3 hrs end semester examination shall be of different types as given in the following table

TABLE V – END SEMESTER QUESTION PATTERN

Question pattern	1 mark	2 marks	3 marks	5 marks	12 marks	14 marks	15 marks	16 marks	20 marks	60 marks	Total
A	10	5	-		--			5 (either or type)			100
B	10		5 out of 7				5 (either or type)	--			100
C	5		5		--			5 (either or type)			100
D		50 Out of 60 MCQ									100
E				20 out of 30 (4 out of 6 in each unit)							100
F									5 (either or type)		100
G			5		5 (either or type)	1 (either or type)					100
H									2 (either or type)	1 (either or type)	100

11.6 The question pattern for the theory course with 2 and less than 2 credit shall be decided by the course coordinator with the approval of the Head of the Department and Dean Academics before the commencement of the semester concerned.

11.7 The end semester examination for project work shall consist of evaluation of the final report submitted by the student or students of the project group (not exceeding 3 students) by an external examiner followed by a viva-voce examination conducted separately for each student by a committee consisting of the external examiner, the guide of the project group and an internal examiner.

11.8 The End semester Examination for Internship shall carry 100 marks and shall be evaluated through End Semester Examination only. At the end of Industrial / Practical training/ Internship/summer project, the candidate shall submit a certificate from the organization where he/she has undergone training and a brief report. The evaluation will be made based on the report and a viva-voce examination conducted by a three member Departmental Committee constituted by the Head of the Institution.

11.9 The student performance of the Self Learning online Courses are assessed and evaluated by the certification Institute/ organization or by the Institution. A committee constituted by the Head of the Institution shall assign number of credits based on the duration of the course and award the grade for these courses based on the quality of the online courses, the assessment procedure and the performance of the student.

11.10 Certificate Courses will have only one performance test for the purpose of awarding grades. A committee constituted by the Head of the Institution shall assign the credit weightage of the course based on duration of the course and grade is awarded based on the performance test conducted by the certifying organization or by the Institution, duration of the certificate course and by giving due weightage for the certificate.

11.11 Students are prohibited from entering into the examination hall / laboratories with any book or any portion of books, manuscript, or paper of any description or communicating with or copying from each other or communicating with anyone outside the examination hall / laboratories. Programmable calculator, Cell phones and other electronic gadgets shall not be permitted inside the examination hall / laboratories. However any required codebooks and data sheets / books, if necessary, may be permitted inside the examination hall / laboratories with the approval of the Chief Superintendent / Examiners. The students are warned that any form of malpractice will be dealt severely. The disciplinary action will be taken by the college authorities after conducting an enquiry. The punishment may even be cancelling all the end semester examinations written by the student in the particular semester and debarring permanently from all the end semester examinations in the particular semester.

11.12 The hall ticket must be produced by all the students at the time of writing the examination. If a student fails to produce the hall ticket on any grounds, he/she should get a duplicate Hall ticket from the Controller of Examinations office through the Chief Superintendent /Examiner by paying the duplicate hall ticket fee.

11.13 Examiners for setting end semester examination question papers for theory courses, evaluating end semester examination answer scripts, conducting practical examinations and evaluating project works shall be appointed by the Controller of Examinations after obtaining approval from the Chairperson, Academic Council of the College.

12. PROCEDURE FOR AWARDING MARKS FOR CONTINUOUS INTERNAL

ASSESSMENT

12.1 Theory Courses

For all the theory courses the continuous internal assessment shall be for a maximum of 40 marks (consisting of 25 marks for tests, 5 marks for Quiz, 5 marks for assignment / Seminar, and 5 marks for attendance).Three tests shall be conducted during the semester by the Department / College concerned. Average marks of 3 tests marks will be considered for 25 marks. All marks put together (maximum 40) should be rounded off to the nearest integer.

The apportionment of continuous internal assessment marks for theory courses shall be as follows:

TABLE VI – CONTINUOUS INTERNAL ASSESSMENT APPORTIONMENT

S.No	Component	Max. Marks
1	Tests	25
2.	Quiz	5
3	Assignment / Seminar	5
4	Attendance	5 *
Total		**40**

* 5 Marks for attendance shall be awarded as given below

76% to 80% of attendance	-	**1mark**
81% to 85% of attendance	-	**2 marks**
86% to 90% of attendance	-	**3 marks**
91% to 95% of attendance	-	**4 marks**
96% to 100% of attendance	-	**5 marks**

12.1.1 Absence from a test due to medical reason or authorized participation in college or university programmes including extracurricular activities will be considered for retest. The student is required to submit Medical / Participation Certificate for the period of absence during the regular test. The marks obtained in retest shall be considered against the test absented.

12.1.2 In order to motivate the students, as per the guidelines of UGC, various components of internal assessment may be adopted such as group discussion, paper reading, viva-voce, technical seminar, quiz and online tests etc. In line with the UGC guidelines, the Internal Assessment Suggestion Committee (vide clause 19) can recommend alternate continuous internal assessment system to the Principal. The alternate continuous internal assessment system should contain at least 2 tests.

12.1.3 If any course requires alternate internal assessment system, the faculty member, who is handling the course, should submit a request to the Dean Academics through the HoD for the alternate continuous internal evaluation system, within two days of the commencement of classes in a particular semester. The Dean Academics shall convene the Internal Assessment Suggestion Committee and the Committee shall scrutinize the request and recommend suitable alternate continuous internal assessment system for approval of the Principal.

12.1.4 There shall be no marks for attendance for the self-learning elective courses as given in 12.1 but assignment/ technical seminar shall carry 10 marks.

12.1.5 The assessment procedure for the elective courses opted from PG curriculum shall be as stipulated in 12.1.

12.2 Practical Courses

12.2.1 For all the practical courses the continuous assessment shall be for a maximum of 50 marks which includes 20 marks for the Record (conduct of experiment, observation and result in regular class work), 5 marks for viva in regular class work, 20 marks for model examination and 5 marks for attendance (vide clause12.1). All marks put together (maximum 50) should be rounded off to the nearest integer

12.2.2 In line with the UGC guidelines, the Internal Assessment Suggestion Committee (vide clause 19) can recommend alternate continuous internal assessment system to the Principal. The alternate continuous internal assessment system (vide clause12.1.3) shall be incorporated after the approval of the Principal.

12.3 Project Work/Technical Project/R&D Project -I/R&D Project- II

12.3.1 The HoD shall constitute a separate review committee for Project work and Technical Project. There shall be three assessments during the semester by the review committee. The student shall make a presentation on the progress made by him / her before the committee.

12.3.2 R&D Project-I shall be evaluated by a review committee consisting of the R&D Supervisor and a senior faculty member, nominated by the Principal, in the related field of the project. There shall be three assessment during the period of the project. At the end of the project period, the marks shall be awarded by the same committee for the report and the viva-voce.

12.3.3 R&D Project-II shall be evaluated by a review committee consisting of the Head of the Department of the students, R&D Supervisor and a senior faculty member, nominated by the Head of the Department. If the project is

interdisciplinary in nature, separate review committee   can be formed for the students in the respective discipline by the Head of the Department of the students. There shall be three assessment during the period of the project. At the end of the project period, the marks shall be awarded by the same committee for the report and the viva-voce.

TABLE VII – ASSESSMENT APPORTIONMENT FOR PROJECT WORK/TECHNICAL PROJECT/R&D PROJECT-1/R&D PROJECT-II

Internal			External				Total
			End semester Examinations				
Review I	Review II	Review III	Thesis/ Report	Viva-Voce (**30**)			
				Internal	External	Supervisor	
50			20	10	10	10	100 marks

12.3.4 A candidate may be permitted to work on the project in an Industry / Research Organization, on the recommendations of the HoD, with the approval of the Head of the Institution, if necessary. These candidates will have to produce a certificate of authorization from the Industry/Research Organization where the project is done.

12.3.5 Multidisciplinary Project : Students may be permitted to carry out the Multi-disciplinary Project offered in Institute level. The student shall obtain the prior approval of the Head of the Institution through the Head of the Department. The students who have more than 7 CGPA up to V semester are eligible to carry out multi-disciplinary project. The project group shall have a combination of 3 to 5 students from at least three different disciplines. There shall be two phases in multi-disciplinary project, Phase I and Phase II.

The students who opted for Multi-disciplinary projects should do both phase I and II.

The students who are eligible as given above shall register for multi-disciplinary project in the beginning of VII semester to the Institute level project coordinator assigned by the Head of the Institution. The review committee for phase I & II shall be constituted by the project coordinator.

In this project phase I, the student shall learn the multi-disciplinary concepts to conceive a conceptual idea for the projects which can be developed in phase II during VIII semester. At the end of the seventh semester the student shall make a presentation based on the concept learnt.

For Multi-disciplinary project Phase-I, the continuous internal assessment will carry 50 marks and end semester will carry 50 marks. There shall be three internal assessments during the Multi-disciplinary Project Phase-I. At the end of the Multi-disciplinary Project Phase – I, the student shall submit a Conceptual Report of the Multidisciplinary Project (Phase-I) and make a presentation. The marks shall be awarded based on the Conceptual Report of the Multidisciplinary Project Phase-I and the Viva-voce.

TABLE VII (A) – ASSESSMENT APPORTIONMENT FOR MULTI DISCIPLINARY PROJECT PHASE - I

Internal			External					Total
			End semester Examinations					
			Conceptual Report of the Multi-disciplinary Project (Phase- I)	Viva-Voce (**30**)				
Test I	Test II	Review (Idea Presentation)		Internal	Supervisor	External Review Committee		Total
50			10	10	10	20		100 marks

The student gains three credits through phase I, he/she can be exempted from one professional / open elective course.

For phase II, the credit weightage, continuous internal and end semester assessment are same as regular project work (vide clause 12.3.3)

12.4 Integrated Courses (Theory Courses with Laboratory Component)

The theory and the practical components of the integrated courses shall be evaluated individually for those courses by assigning the weightage for each component in accordance with the credit ratio and this is applicable to both continuous internal assessment and end semester examination.

12.5 Self Learning online Courses

The continuous assessments will be done by the procedure stipulated by the certification Institution/ organization/Industry or by internal faculty assigned as a tutor for the self-learning course. The procedure for the award of grade and the credits assigned to the course as stipulated in 11.9.

12.5 Industry Designed Courses

The industry or the faculty coordinator of the course (in coordination with the industry) shall frame the internal and external assessment procedure and conduct the relevant

assessment accordingly. The assessment procedure shall be announced to the students within a week of the commencement of the classes, after approval from the Principal. The faculty coordinator nominated by the Head of the Department shall be responsible for the coordination with the industry and for the completion of the assessment and submitting the marks to the Controller of examinations through the Head of the Department.

12.7 Certificate Courses

The procedure for assessment, award of grade and assigning credits are stipulated in 11.10.

12.8 Mandatory Courses

All mandatory courses are assessed by continuous internal assessment only. The procedure for assessment of the courses under personality and Social Development, Skills Development are given in Annexure I. The procedure for internal assessment of the course 'Value Education and Human Rights' shall be framed by a committee consisting of Head of the Department of the course and two senior faculty members handling the course. After obtaining the approval from the Principal, the internal assessment procedure shall be announced to the students within a week of the commencement of the classes.

12.9 Attendance and Continuous Assessment Record

Every teacher is required to maintain an Attendance and Continuous Assessment Record which consists of attendance marked or each lecture or practical or project work classes, the tests & assignment marks and record of class work (topics covered) separately for each course. This should be submitted to the HoD concerned at the end of every month for checking the syllabus coverage and the record of test marks and attendance. The HoD will put his/her signature and date after due verification. At the end of the semester, the HoD should verify the register and keep this document in his/her safe custody for five years. The register will have to be produced for scrutiny by the Principal or any inspecting authority whenever called for. The faculty handling courses for a particular programme from other departments (e.g. English, Mathematics, Science, etc.) shall submit the records to the HoD of the faculty concerned.

13 PASSING REQUIREMENTS

13.1 A candidate who secures not less than 50% of total marks (Continuous internal assessment + End semester examination) prescribed for the courses with a minimum of 45% marks prescribed for the end semester examination in both theory and practical courses (including project work) shall be declared to have passed the examination.

13.2 A candidate who has appeared and failed to secure pass in the end semester examinations in current courses shall be permitted to appear in the

subsequent supplementary examinations on registration and payment of prescribed fees. For the first four courses appeared in the supplementary examination shall not be considered as attempt and for the remaining appearances are considered as attempts.

13.3 Supplementary examinations may also be conducted immediately after the publication of revaluation results of End semester examinations.

13.4 If a candidate fails to secure a pass in a particular course both in end semester examination and supplementary examination, it is mandatory that he/she shall register and reappear for the end semester examination in that course during the next semester when examination is conducted for that course. He/she should continue to register the course as well as examination and reappear for the examination till he/she secures a pass, subjected to the stipulated period (vide clause 6.1).

13.5 The internal assessment marks obtained by the candidate in the first appearance shall be retained and considered valid for all subsequent attempts till the candidate completes the duration of the Programme.

After the candidate completes the duration of the programme, if the candidate fails to obtain pass marks (Continuous internal assessment + End Semester Examination), the passing minimum requirement shall be as per clause 13.6, after two attempts onwards.

13.6 The candidate should secure not less than 50% of minimum marks prescribed for the course in the end semester examination alone.

14 AWARD OF LETTER GRADES

14.1 All assessments of a course will be done on absolute mark basis. However, for the purpose of reporting the performance of a candidate, letter grades, each carrying certain number of points, will be awarded as per the range of marks obtained by the candidate in each course as detailed below:

TABLE VIII – LETTER GRADING

Letter grade	Grade points	Marks range
O (Outstanding)	10	91 – 100
A+ (Excellent)	9	81 – 90
A (Very Good)	8	71 – 80
B+ (Good)	7	60 – 70
B (Above average)	6	50 – 59
RA (Reappearance Registration)	0	< 50
SA (Shortage of Attendance)	0	
AB (Absent)	0	

'RA' denotes Reappearance registration is required for that particular course, 'SA' denotes Shortage of Attendance **(**as per clause **7)** and hence prevented from writing the end semester examination.

The Grade point average (GPA) for each semester is calculated using the formula

$$GPA = \dfrac{\displaystyle\sum_{i=1}^{n} C_i GP_i}{\displaystyle\sum_{i=1}^{n} C_i}$$

The Cumulative Grade Point Average (CGPA) is calculated from the first semester to final semester using the formula

$$CGPA \quad \dfrac{\displaystyle\sum_{i=1}^{N} C_i GP_i}{\displaystyle\sum_{i=1}^{N} C_i}$$

Ci - is the Credits assigned to the course

GPi - is the point corresponding to the grade obtained for each Course

n - is number of all Courses successfully completed during the particular semester in case of GPA

N – is number of all courses successfully completed during all the semesters in case of CGPA

"RA", **"SA" and "AB"** grades will be excluded for calculating GPA and CGPA.

The GPA and CGPA are computed only for the candidates with a pass in all the courses.

The GPA and CGPA indicate the academic performance of a candidate at the end of a semester and at the end of successive semesters respectively.

The formula for the conversion of CGPA to equivalent percentage of marks shall be as follows:

Equivalent Percentage of Marks = CGPA X 10

14.2 Grade Sheet
A grade sheet for each semester shall be issued containing the following information after the publication of the results

1. The credits registered and earned by the student
2. Grade obtained in each course
3. Additional credit earned through special courses
4. Grade Point Average of the semester and Cumulative Grade Point Average earned up to the semester
5. Month and year of appearance
6. Procedure for calculation of GPA and CGPA

15 ELIGIBILITY FOR THE AWARD OF DEGREE

A candidate shall be declared to be eligible for the award of the Degree if he/she has

- Successfully completed the course requirements by earning required no. of credits specified in the curriculum and passed all the prescribed courses in the Curriculum including mandatory courses corresponding to his/her Programme within the stipulated time (vide clause 6.1)
- No disciplinary action is pending against him/her.
- Successfully completed the field visit / industrial training, if any, as prescribed in the curriculum.
- Successfully completed any additional courses prescribed by the Dean-Academics, whenever any candidate is readmitted.
- The award of the Degree shall be approved by the syndicate of the University

16 REVALUATION

16.1 A candidate can apply for direct revaluation or revaluation with photocopy of his/her end semester examination answer paper in a theory course, within a week from the declaration of results on payment of the prescribed fee.

16.2 Direct Revaluation application form must be submitted to the Controller of Examinations through the HoD. The Controller of Examinations will arrange for the revaluation and the results will be intimated to the candidate concerned.

16.3 A candidate shall apply for the Photocopy of his/her end semester examination answer script on payment of the prescribed fee and apply for revaluation through

revaluation with Photocopy application form to the Controller of Examinations within a week after the photo copy of the answer script is received.

16.4 A candidate can apply for direct revaluation/revaluation with photocopy of answer scripts for not exceeding 5 subjects in a semester at a time. Revaluation is not permitted for practical courses and for project work.

16.5 Review: Candidates not satisfied with Revaluation can apply for Review of his/her examination answer script for theory courses, on payment of a prescribed fee with proper application to Controller of examination through the Head of the Institution. Candidates those applied for Revaluation are eligible to apply for Review.

17 CLASSIFICATION OF THE DEGREE AWARDED

17.1 A candidate who qualifies for the award of the Degree (vide clause 15) after having passed the examination in all the courses as per the requirement of the curriculum in his/her first appearance within five years [within four years in case of lateral entry] securing a CGPA of not less than 8.5 shall be declared to have passed the examination in First Class with Distinction. For this purpose the withdrawal from examination (vide clause 9) will not be construed as an appearance. Further, the authorized break of study (vide clause 10) is permitted in addition to four years (three years in the case of lateral entry) for award of First Class with Distinction.

17.2 A candidate who qualifies for the award of the Degree (vide clause 15) having passed the examination in all the courses the requirement of the curriculum within five years [within four years in case of lateral entry], securing a CGPA of not less than 7 shall be declared to have passed the examination in First Class. For this purpose the withdrawal from examination (vide clause 9) will not be construed as an appearance. Further, the authorized break of study (vide clause 10) is permitted in addition to four years (three years in the case of lateral entry) for award of First Class.

17.3 All other candidates (not covered in clauses 17.1 and 17.2) who qualify for the award of the degree (vide Clause 15) shall be declared to have passed the examination in Second Class.

17.4 A candidate who is absent in the end semester examination in a course / project work after having enrolled for the same shall be considered to have appeared in that examination for the purpose of classification.

18 FACULTY ADVISOR (PROCTOR)

To help the students in planning their courses of study and for general advice on the academic programme, the HoD of the students will attach a certain number of students to a teacher of the Department who shall function as Faculty Advisor / Proctor for those students throughout their period of study. Such faculty Advisors shall

advise the students and monitor the courses undergone by the students, check the attendance and progress of the students attached to him/her and counsel them periodically. If necessary, the Advisor may also discuss with or inform the parents about the progress of the students.

19 INTERNAL ASSESSMENT SUGGESTION COMMITTEE

The Internal Assessment Suggestion Committee for FIRST YEAR COURSES shall consist of the HoDs of Science & Humanities, HoD of Mechanical Engineering, HoD of Computer Science & Engineering and HoD of Electrical & Electronics Engineering as members of the Committee and the Dean Academics as the Convenor.

The Internal Assessment Suggestion Committee for HIGHER SEMESTER UG COURSES (III to VIII Semester) shall consist of the HoDs of all Engineering Departments, HoD of Mathematics and HoD of English as members of the Committee and the Dean Academics as the Convenor.

19.1 Dean Academics may invite any number of faculty members from the college who are expert in the particular subject(s) as special invitees to the committee.

19.2 The committee shall suggest alternate continuous internal assessment system for the particular course(s) for which request has been made.

19.3 The committee shall scrutinize and recommend suitable alternate continuous internal assessment system within a week to the Principal for ratification.

19.4 The Principal shall carefully examine the recommendation of the Committee and ratify the recommendation before the commencement of the first Class Committee Meeting (vide clause 20). The Principal may approve or reject the alternate continuous internal assessment system and the approval is up to the discretion of the Principal.

19.5 The alternate continuous internal assessment system shall be incorporated after the approval of the Principal.

20 CLASS COMMITTEE

A Class Committee consists of teachers of the concerned class, student representatives and a Chairperson who is not teaching the class. It is like the 'Quality Circle' with the overall goal of improving the teaching-learning process. The functions of the class committee include

- Solving problems experienced by students in the classroom and in the laboratories

- Clarifying the regulations of the programme and the details of rules therein

- Informing the student representatives about the academic schedule including the

dates of assessments and the syllabus coverage for each assessment

- Informing the student representatives about the details of regulations regarding the weightage used for each assessment. In the case of practical courses (laboratory / 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.

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

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

20.1 The class committee for a class under a particular programme is normally constituted by the Head of the Department. However, if the students of different programmes are mixed in a class, the class committee is to be constituted by the Head of the Institution.

20.2 The class committee shall be constituted on the first working day of any semester or earlier.

20.3 At least 6 student representatives shall be included in the class committee

20.4 The Chairperson of the class committee may invite the Faculty advisor(s) and the Head of the department to the meeting of the class committee.

20.5 The Head of the Institution may participate in any class committee of the institution.

20.6 The Chairperson is required to prepare the minutes of every meeting, submit the same to the Head of the Department within two days of the meeting and arrange to circulate among the concerned students and teachers. If there are some points in the minutes requiring action by the management, the same shall be brought to the notice of the management through the Head of the Institution.

20.7 The first meeting of the class committee shall be held within two weeks from the date of commencement of the semester in order to inform the students about the nature and weightage of assessments within the framework of the Academic Regulations. Two or three subsequent meetings may be held at suitable intervals. During these meetings the student members, representing the entire class, shall meaningfully interact and express the opinions and suggestions of the class to improve the effectiveness of the teaching-learning process.

21 DISCIPLINE

Every student is required to be disciplined and behave with propriety both inside and outside the Institution and not indulge in any activity which will bring down the prestige of the Institution. The Principal shall constitute a disciplinary committee to enquire into

acts of indiscipline and disciplinary action will be taken based on the recommendations of the committee. If a student indulges in malpractice in any of the end semester/internal examination he/she shall be liable for punitive action as prescribed by the Institution (from time to time).The disciplinary action is subject to review by the Principal, in case the student represents the case to the Principal.

22 REVISION OF REGULATIONS AND CURRICULUM

The Academic Council of the College reserves the right to revise or change or amend the regulations, the scheme of examinations, the curriculum and the syllabi from time to time if found necessary.

Any condition which has not been covered in the above regulations may be referred in the Academic Council for a decision.

23 SPECIALCASES

In the event of any clarification in the interpretation of the above rules and regulations, they shall be referred to the Standing Committee. The members of the Standing committee shall be nominated by the Chairperson of the Academic Council. The Standing Committee will offer suitable interpretations / clarifications / amendments required for special cases and get them ratified in the next meeting of the Academic Council, if necessary. The decision of the Academic Council will be final.

MINIMUM TOTAL CREDITS FOR B.E./B.Tech. DEGREE
PROGRAMMES OFFERED IN THE INSTITUTION

S.No	Name of the Programme	Minimum Total Credits *
1.	B.E. Mechanical Engineering	170
2.	B.E. Electronics and Communication Engineering	171
3.	B.E. Computer Science and Engineering	169
4.	B.E. Electrical and Electronics Engineering	175
5.	B.E. Civil Engineering	173
6.	B.Tech. Information Technology	169
7.	B.E. Electronics and Instrumentation Engineering	171
8.	B.Tech. Chemical Engineering	170
9.	B.E. Agriculture Engineering	174
9.	B.E. Biomedical Engineering	169

* Minimum Total Credits to be earned by the student admitted to the particular UG Programme to become eligible for the award of Degree as per Clause 15 of Regulations 2015(UG).

ANNEXURE – I

MANDATORY COUSES

15UMC731 Personality and Social Development

PSD01 Sports and other Extra-Curricular Activities

Eligibility   :   Participating as a Bonafide student of Sethu Institute of Technology

Type of Events   :   Indoor Events / Outdoor Events – Athletics, other extra-curricular
                                  activities such   as Music, Dance, Essay writing, Quiz, Debate, and
                                  any other extracurricular activity
                                  .
Nature of Competition : Intra Institute, Inter Institute, University Zonal level,   University level,
                              National level and International level

Marks allotment   :

Nature of Competition	Marks Allotted	
Intra Institute Competition	1st Prize 2nd Prize 3rd Prize Participation	**: 5 marks** **: 4 marks** **: 3 marks** **: 2 marks**
Inter Institute Competition	1st Prize 2nd Prize 3rd Prize Participation	**: 10 marks** **: 8 marks** **: 6 marks** **: 3 marks**
University Zonal Competition	1st Prize 2nd Prize 3rd Prize Participation	**: 12 marks** **: 10 marks** **: 8 marks** **: 6 marks**
University level Competition	Any Prize Participation	**: 15 marks** **: 10 marks**
National/International level Competition	Any Prize Participation	**: 20 marks** **: 15 marks**

Passing Requirement   :   A **minimum** of **50 marks** out of **100**

Authorizing Person   :   Institute **P**hysical **E**ducation **D**irector(s) /
                                  Fine Arts Club Convenor

Scrutinizing Authority   :   **H**ead **o**f the **D**epartment concern

PSD02 National Service Scheme

Eligibility : Participating as a Bonafide student of Sethu Institute of Technology

Type of Events : Any type of social service activity conducted by NSS

Marks Allotment : *Organizing Events* : **10 marks**
Attendance : **5 marks /5 hours of NSS activity**
NSS Camp : **50 marks**

Passing Requirement : A **minimum** of **50 marks** out of **100**

Authorizing Person : Institute **NSS** Coordinator(s)

Scrutinizing Authority : **H**ead **o**f the **D**epartment concern

PSD03 Club Activities

Eligibility : Membership in any of the Clubs such as ECO Club, Red Ribbon Club, YRC, Photography Club, Rotract Club etc.,

Type of Events : Any type of Club activity conducted by clubs, one student can participate one or more club activities to accumulate marks under this category

Marks Allotment : *Organizing Events* : **10 marks**
Donating Blood : **20 marks/donation**
Participation : **08 marks**
Attendance : **5 marks /3 hours of club activities**

Passing Requirement : A **minimum** of **50 marks** out of **100**

Authorizing Person : **Club Coordinator**

Scrutinizing Authority : **H**ead **o**f the **D**epartment concern

Guidelines for Personality and Social Development

❖ Participation in Sport events / Extra-curricular events/Club events from first semester to seventh semester may be considered

❖ The participation / prize winning certificates in any Extra-curricular competition shall be submitted to the Faculty in-charge of Extra-curricular Activities / HoD.

<h2>15UGS732 SKILLS DEVELOPMENT</h2>

SD01   CO-CURRICULAR ACTIVITIES

Eligibility   :   Participating as a Bonafide student of Sethu Institute of Technology

Type of Events   :   Paper presentation in Symposiums, conferences, Journal article
                                   Publication Mini-Project Contest, professional society activities, value
                                   added courses and Trainings

Nature of Competition   :   Intra Institute, Inter Institute, University level, National level &
                                   International level

Marks allotment   :

Nature of Competition	Marks Allotted	
Technical Competition / Event - Internal	Any Prize Participation	**: 10 marks** **: 5 marks**
Technical Competition / Event - External	Any Prize Participation	**: 10 marks** **: 5 marks**
Professional Society	Membership Organization/participation	**: 10 marks** **: 3 marks**
Conference/ Journal Publication	**10 Marks / Article**	
Value added courses & Trainings	**5 marks/3hours of participation or 10 Marks /day**	

Passing Requirement :   A **minimum** of **50 marks** out of **100**

Authorizing Person   :   **Class Advisor / Proctor**

Scrutinizing Authority :   **H**ead **o**f the **D**epartment concern

SD02   English Proficiency Certification

Eligibility   :   As given by the certification authority

Course Content   :   As given by the certification authority

Marks Allotment   :   Certificate or Scorecard obtained from certification Authority

Passing Requirement :   A **minimum** of **50 marks** out of **100**

Authorizing Person   :   **Course Coordinator**

Scrutinizing Authority :   **H**ead **o**f the **D**epartment–**English / T**raining **O**fficer **– TPC**

SD03   SOFT SKILLS AND APPTITUDE

Course Content   : Module *1*   : *Personality developments and soft Skills*

                      Module *2*   : *Analytical and Problem Solving Skills*

Duration   : 45 Hours

Assessment Procedure   : Same as **Regular Theory** courses

Authorizing Person   : **Training Officer/Course Teacher**

Scrutinizing Authority   : **Institute Training Officer**

SD04   APTITUDE PROFICIENCY CERTIFICATE

Eligibility   : As given by the Certification Authority of GRE, GMAT, CAT,CMAT, etc.,

Course Content   : As given by the Certification Authority

Passing Requirement   : Certificate or Scorecard obtained from certification Authority

Scrutinizing Authority   : **H**ead **o**f the **D**epartment

SD05   INTELLECTUAL PROPERTY RIGHTS

IPR obtained or registered with the approval of the Head of the Department concern and also with the affiliation of Sethu Institute of Technology will be eligible to get pass in Skill Development Category of Non – CGPA Mandatory Courses

Guidelines for Skill Development

- ❖ Any type of Co- Curricular events may be registered by students from first semester to seventh semester.
- ❖ The participation/ Prize winning certificate in any Co-curricular competition shall be submitted to the Faculty in-charge of Co-curricular Activities / HOD.
- ❖ Minimum 75% Attendance is essential for SD 03 Soft Skills and Aptitude course
- ❖ The IPR filed/obtained to fulfill the requirement of SD05 course shall be with the affiliation of Sethu Institute of Technology