A NAAC Accredited Institution

KINGS COLLEGE OF ENGINEERING

Recognized under 2(f) & 12(B) of UGC
Approved by AICTE, New Delhi
Affiliated to Anna University, Chennai

TÜVRheinland CERT ISO 9001

1.3.2 COURSES WITH EXPERIENTIAL LEARNING

TABLE OF CONTENTS

S.No	Department	IHT/ Internship	Project Field visit/ Local visit	Mini Project/ Creative Innovative Project	Survey Camp
1	CIVIL	3	1	1	1
2	CSE	6	1	1	
3	ECE	4	3	-	
4	EEE	4	4	4	
5	MECH	4	1	1	
		21	10	7	1
Total number of courses that include experiential learning through project work/ fieldwork/ internship during the academic year 2022-2023 **: 39**					

29/5/23

IQAC COORDINATAR

29/5/2023

PRINCIPAL

ANNA UNIVERSITY, CHENNAI - 600 025

AFFILIATED INSTITUTIONS

REGULATIONS 2021

CHOICE BASED CREDIT SYSTEM

Common to all B. E. / B. Tech. Full-Time Programmes

(For the students admitted to B. E./B. Tech. Programme at various Non-Autonomous Affiliated Institutions)

DEGREE OF BACHELOR OF ENGINEERING / BACHELOR OF TECHNOLOGY

This Regulation is applicable to the students admitted to B.E/B.Tech. Programmes at all Engineering Colleges affiliated to Anna University, Chennai (other than Autonomous Colleges) and to all the University Colleges of Engineering of Anna University, Chennai from the academic year 2021-2022 onwards.

1 PRELIMINARY DEFINITIONS AND NOMENCLATURE

In this Regulation, unless the context otherwise specifies:

I. "**Programme**" means Degree Programme, that is B.E./B.Tech. Degree Programme.

II. "**Discipline**" means specialization or branch of B.E./B.Tech. Degree Programme, like Civil Engineering, Textile Technology, etc.

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

IV. **"Director, Centre for Academic Courses"** means the authority of the University who is responsible for all academic activities of the Academic Programmes for implementation of relevant rules of this Regulations pertaining to the Academic Programmes.

V. **"Chairperson"** means the Head of the Faculty.

VI. **"Head of the Institution"** means the Principal of the College.

VII. **"Head of the Department (HOD)"** means the Head of the Department concerned.

VIII. **"Controller of Examinations (COE)"** means the authority of the University who is responsible for all activities of the University Examinations.

IX. **"University"** means ANNA UNIVERSITY, CHENNAI.

2 ADMISSION

2.1 Candidates seeking admission to the first semester of the eight semesters

B.E./ B.Tech. Degree Programme:

Should have passed the Higher Secondary Examinations of (10+2) Curriculum (Academic Stream) prescribed by the Government of Tamil Nadu with Mathematics, Physics and Chemistry as three of the four subjects of study under Part-III or any examination of any other University or authority accepted by the Syndicate of Anna University as equivalent thereto.

(OR)

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 Lateral entry admission to the third semester of B.E. / B.Tech., as per the rules fixed by Government of Tamil Nadu.

(OR)

(ii) The candidates who possess the Degree in Science (B.Sc.) (10+2+3 stream) with Mathematics as a subject at the B.Sc. Level are eligible to apply for Lateral entry admission to the third semester of B.E. / B.Tech.

Such candidates shall undergo two additional Engineering subject(s) in the **third and fourth semesters** as prescribed by the University.

3 PROGRAMMES OFFERED

B.E. / B.Tech. Programmes under the Faculty of Civil Engineering, Faculty of Mechanical Engineering, Faculty of Electrical Engineering, Faculty of Information and Communication Engineering and Faculty of Technology.

4 STRUCTURE OF THE PROGRAMMES

4.1 Categorization of Courses

Every B.E. / B. Tech. Programme will have a curriculum with syllabi consisting of theory and practical courses that shall be categorized as follows:

i. **Humanities, Social Sciences and Management Courses (HSMC)** include Professional English, Communication skills etc.

ii. **Basic Sciences Courses (BSC)** include Mathematics, Physics, Chemistry, Biology, Environmental Science etc.

iii. **Engineering Sciences Courses (ESC)** include Engineering Practices, Engineering Graphics, Basics of Civil / Mechanical / Electrical / Electronics /

Instrumentation, Computer Engineering, etc.

iv. **Professional Core Courses (PCC)** include the core courses relevant to the chosen specialization/branch.

v. **Professional Elective Courses (PEC)** include the elective courses relevant to the chosen specialization/ branch. Professional Elective courses are offered under verticals (specialisation groups).

Amendment of Clause 4.1 (v)

vi. **Open Elective Courses (OEC)** include the courses offered by a branch to other branches, from the list specified in the respective curriculum of the B.E. / B. Tech. / B. Arch. Programmes.

vii. **Employability Enhancement Courses (EEC)** include Project Work, Internship, Seminar, Professional Practices, Case Study and Industrial/Practical Training etc.

viii. **Mandatory courses (MC)** include the courses such as Languages, Well being etc.

Amendment of Clause 4.1.viii

ix. **Employability Enhancement Skill Based Courses**

Skill based experiential learning courses will be offered in two categories as purely Laboratory Based Courses and Theory Integrated Laboratory Courses.

Insertion of New Clause 4.1. ix

4.2 **Personality and Character Development**

All students shall enroll, on admission, in any one of the personality and character development programmes NCC/NSS/NSO/YRC and undergo training / conduct activities for about 80 hours and attend a camp of about seven days. The training shall include classes on hygiene and health awareness and also training in first-aid. Alternately, activities of science, literature and arts also help for personality and character development. So, students shall conduct and participate actively in Science club/Literary Forum/Fine Arts activities for 80 hours and participate in at least ONE event.

National Cadet Corps (NCC) will have about 20 parades.

National Service Scheme (NSS) will have social service activities in and around the College / Institution.

National Sports Organization (NSO) will have Sports, Games, Drills and Physical exercises.

Youth Red Cross (YRC) will have activities related to social services in and around College/Institution.

While the training activities will normally be during weekends, the camp will normally be during vacation period.

Science club shall organise activities of popularisation of science and scientific temper through activities related to astronomy, works of great scientists from India and abroad, observing National Science Day, etc.

Literary Club like 'Tamil Ilakkiya Mandram' shall be formed, which shall organise colourful literary events to propagate good humanist values, morals and ethics reflected in the literature.

Fine Arts Club like music, painting and documentary films with social themes shall be encouraged.

Students who enroll and take active participation in anyone of the above activities for 80 hours and participate at least one event/programme will be given a certificate by the Head of the Institution and the copy of the same shall be forwarded to the Controller of Examinations for the purpose of record and scrutiny.

No fee shall be charged for all these activities.

4.2 A Induction Programme

Insertion of New Clause 4.2 A

- Induction Programme is mandatory for the students pursuing the Undergraduate Programme.
- List of students who have successfully completed the Induction Programme shall be certified by the Head of the Institution.
- The completion of the Induction Programme shall be printed in the Grade Sheet as "**COMPLETED**".
- In the case of students who have got admitted later and those who have not attended the Induction Programme at the time of joining the degree programme, it shall be conducted later and on completion, it shall be recorded in the grade sheet.
- No fee will be charged towards the conduct of the Induction Programme and for including in the STATEMENT OF GRADES for the successful completion of the Induction Programme.

4.3 **Number of courses per semester**

Each semester curriculum shall normally have a blend of lecture courses not exceeding **7** Theory courses and Laboratory integrated theory courses and **4** Employability Enhancement Course(s) and Laboratory Courses. However, the total number of courses per semester shall not exceed 10. Each Course shall have credits assigned as per clause 4.4.

4.4 **Credit Assignment**

Each course is assigned certain number of credits based on the following:

Contact period per week	**CREDITS**
1 Lecture Period	1
1 Tutorial Period	1
1 Laboratory Period (also for EEC courses like Seminar / Project Work /Case study / etc.)	0.5

4.5. Industrial Training/ Internship

4.5.1 The students may undergo Industrial training for a period as specified in the Curriculum during the summer / winter vacation. In this case, the training has to be undergone continuously for a period of at least two weeks in an organization.

The students may undergo Internship at a Research organization / University/ Industry (after due approval from the Head of the Institution) for the period prescribed in the curriculum during the summer / winter vacation, in lieu of Industrial training. Attendance Certificate mentioning the period of Industrial Training / Internship and signed by the competent authority of the industry, as per the format provided by the Centre for Academic Courses shall be submitted to the Head of the Institution. The attendance certificate shall be forwarded to the COE, Anna University by the Head of the Institution for processing results.

4.5.2 If Industrial Training/ Internship is not prescribed in the curriculum, the student may undergo Industrial Training/ Internship optionally and the credits earned will be indicated in the Grade Sheet. If the student earns three credits in Industrial Training/ Internship, the student may drop one Professional Elective (only one professional elective can be dropped). In such cases, Industrial Training / Internship need to be undergone continuously from one organization or with a combination one two week and one four week from one/two organizations. However, if the number of credits earned is 1 or 2, then these credits shall not be considered for classification of the degree. Students shall get permission from the Head of the Institution for taking Industrial Training/Internship and the Certificate of completion of Industrial Training / Internship shall be forwarded to the COE.

DURATION OF TRAINING / INTERNSHIP	**CREDITS**
2 Weeks*	1
4 Weeks	2
6 Weeks	3

***1 Week = 40 Internship Hours**

4.6 Industrial Visit

Every student is required to go for at least one Industrial Visit every semester starting from the second year of the Programme. The Heads of Departments shall ensure that necessary arrangements are made in this regard.

4.7 Value Added Courses

Amendment of Clause 4.7

- Students may optionally undergo Value Added Courses and the credits earned through the Value Added Courses shall be over and above the total credit requirement prescribed in the curriculum for the award of the degree. Courses with two/ three credits shall be offered by a Department of an institution with the prior approval from the Director, Academic Courses.

- The details of the syllabus, timetable and faculty may be sent to the Centre for Academic Courses after approval from the Head of the Institution.

- Students shall be allowed to take these courses offered in other Departments also, but with the permission of the Head of the Institution of student and Head of the institution offering the course.

- The courses once approved by the University represented by any Department shall be made available in the University website and these courses can be offered by the University Departments / Constituent colleges / affiliated colleges (Non-Autonomous with information to Director Academic Courses.

4.8 Off campus courses and Transfer of Credits

Amendment of Clause 4.8

Students are permitted to optionally enroll and study a maximum of three off campus courses in physical/online/hybrid mode under each UG programme with the approval of Director, Centre for Academic courses as per the Regulations. The successful completion of these courses through any of the following modes shall be considered in lieu of professional elective / open elective courses of curriculum as approved by the Head of the Institution.

4.8.1 Students are permitted to optionally enroll and study these courses through SWAYAM - NPTEL platforms and credit transfer is to be done based on the marks and certificate provided by the NPTEL. The number of credits and transfer of credits are based on the procedure explained in Table 3 and the Mapping of the marks with the grades is explained in Table 4. The mapping of marks with grades is applicable, only if the student passes the course as per the guidelines of NPTEL.

Table 3: Duration of the course and Number of credits

Sl. No.	No. of Weeks	No. of Credits
4	4	1
5	8	2
6	12	3
7	16	4

Table 4: Mapping of Marks scored in NPTEL course and Credits earned

Letter Grade	Marks
O	90-100
A+	80-89
A	70-79
B+	60-69
B	50-59
C	40-49

4.8.2. Students are permitted to optionally enroll and study the courses in physical / hybrid / online modes offered by reputed Central / State funded Universities / Institutions which are in the top 20 positions in the latest NIRF ranking and also conducting examination towards award of marks and grades. (NIRF Ranking of any of the last three years with respect to the year in which course is to be registered; NIRF ranking is based on respective stream for professional elective courses and based on any stream for open elective courses).

Students are also permitted to enroll and undergo such courses in Online mode at Universities abroad in top 500 in QS ranking in the last three years.

Students are also permitted to study courses of a particular semester in a University / Institution abroad based on MoU. A learning agreement shall be evolved to map all the courses offered in the programme and the courses offered in University abroad as per the procedure outlined by the Centre for Academic Courses The credits earned by the students in the University abroad shall be transferred as per the learning agreement.

In the case of 4.8.2, the students can enroll for the courses with the approval of the Head of the institution only if the course is offered directly by Institution/University and not with the edutech platforms.

The marks/credits earned by the student shall be transferred based on the decision of a committee constituted by Director, Centre for Academic courses and approved by the University.

4.8.3 Students are also permitted to enroll and study the courses in physical/hybrid mode (not less than 50% in physical mode) that are offered by (i) National/State funded research institutions/laboratories and (ii) reputed companies (manufacturing or software) related to the programme, and (b) reputed companies involved in transfer of knowledge provided the knowledge transferring company is a spinoff from an Engineering/Technology practicing Industry and sharing the work experience of the respective industry. The companies mentioned in 4.8.3 (ii) (a) and the company with which the knowledge transfer company associated in the case of 4.8.3 (ii) (b) should have average annual turnover of more than 200 crores over a period of 5 years. However, the academic content and delivery shall be in consonance with the University academic standards and norms.

The minimum qualification of the course instructor from the company as mentioned in 4.8.3. (ii) shall be B.E./B.Tech with 10 years of research / industrial experience . Such courses shall be offered through MOU / MOA between Anna University and such institutions/organizations/ companies. The design of the courses with regard to the syllabus content, duration of each course and number of credits offered for each course shall be discussed and recommended by the Head of the Institution and approved by Director, Centre for Academic Courses as per the Regulations.

For the offer of each course under 4.8.3, a course coordinator shall be nominated from the Department who shall also attend such course and shall coordinate the question paper setting and answer script evaluation with the course instructor from research institution /laboratories /industry/ company for the continuous assessment and end semester examination conducted by the University. The passing requirements are as per regulations.

4.9 Mandatory courses

Amendment of Clause 4.9

The student shall study the mandatory courses prescribed by the University and it will be mentioned in the Grade Sheet. However, it will not be considered for computation of CGPA.

4.10 B.E. / B. Tech. (Hons) and B.E. / B. Tech. minor with specialisation in another discipline.

Amendment of Clause 4.10

(i) B.E / B.Tech. (Hons.)

a. The students should have taken additional courses from a specified group of Professional Electives (vertical) or from any of the verticals of the same programme and earned a minimum of 18 credits.

b. Should have passed all the courses prescribed in the curriculum and additional courses in the first attempt.

c. Should have earned a minimum of 7.50 CGPA taking into account of all the courses prescribed in the curriculum and additional courses.

(ii) B.E./B.Tech. Minor with specialisation in another discipline

The student should have earned additionally a minimum of 18 credits in any one of the verticals offered from Engineering Disciplines / Science and Humanities / Management

1. For these 18 credits students can optionally enroll and study a maximum of 6 credits in online mode from SWAYAM-NPTEL platform (in addition to the three online courses permitted for courses of curriculum), as approved by the Centre for Academic Courses.

2. B.E / B.Tech. (Hons.) and B.E./B.Tech. minor with specialisation in another discipline will be optional for students and the students shall be permitted to select any one of them only.

3. For the categories 4.10 (i), the students, including Lateral Entry, shall be permitted to register for the courses from Semester V onwards provided the students have earned a minimum CGPA of 7.50 until Semester III and have cleared all the courses in the first attempt.

4. For the category 4.10 (ii), the students, including Lateral Entry, will be permitted to register the courses from Semester V onwards provided the marks earned by the students until Semester III is CGPA 7.50 and above.

5. B.E/B.Tech. (Hons.) or B.E./ B.Tech. Minor shall be offered by the Department irrespective of the number of students enrolled.

6. If a student decides not to opt for Honours, after completing certain number of additional courses, such additional courses studied shall be considered instead of the Professional Elective courses which are part of the curriculum.

If the student has studied more number of such courses than the number of Professional Elective courses required as per the curriculum, the courses with higher grades shall be considered for the calculation of CGPA. Remaining courses shall be printed in the grade sheet however, they will not be considered for calculation of CGPA and the same shall be indicated in a foot note appropriately.

If the student has failed in the additional courses or faced shortage of attendance, they will not be printed in the grade sheet and will not be considered for CGPA calculation and classification of degree.

7. If a student decides not to opt for Minor, after completing certain number of courses, the additional courses studied shall be considered instead of Open Elective courses which are part of the curriculum.

If the student has studied more number of such courses than the number of open electives required as per the curriculum, the courses with higher grades shall be considered for calculation of CGPA. Remaining courses shall be printed in the grade sheet, however, they will not be considered for calculation of CGPA and the same shall be indicated in a foot note appropriately.

If the student has failed in the additional courses or faced shortage of attendance, they will not be printed in the grade sheet and will not be considered for CGPA calculation and classification of degree.

The student has to enroll for these additional courses separately and pay a tuition fee for studying these six additional courses and pay additional exam fee.

For the students who have joined the programme in the year 2020 are also permitted to Register for B.E./B.Tech. Hons. and minor with the condition that the student should have earned 7.50 CGPA till V semester. For Hons. the student should have passed all the courses in the first attempt. The student should complete the additional 18 credits within 4 ½ years.

4.11 Medium of Instruction

The medium of instruction is English for all courses, examinations, Seminar presentations and Project Work reports except for the programmes offered in Tamil Medium.

4.12 Employability Enhancement Skill Based Courses

Insertion of New Clause 4.12

Skill based experiential learning courses will be offered in two categories as purely Laboratory Based Courses and Theory Integrated Laboratory Courses with the following credits. One such course will be offered in every semester from V to VII.

Category	L	T	P	C
Laboratory Courses	0	0	4	2
	0	0	2	1
Theory integrated Laboratory Course	1	0	2	2

A student may accumulate upto 6 credits through such courses, and such credits will be considered in lieu of the Professional Elective and/or Open Elective courses.

These courses may be offered with the support of the identified firms/companies and with one course coordinator per course and a mentor from the firm.

Evaluation Procedure:

The evaluation of the above mentioned courses are fully internal and shall be jointly done by the course coordinator from the institution and the mentor from the firm.

(a) If the course involves certification from an identified firm/company, then 20% of the total marks will be included in the internal assessment marks, 30% will be included from the marks provided by the firm and 50% shall be evaluated by the respective Course Coordinators of the college by conducting appropriate theory and / or laboratory tests.

(b) If there is no certification from the firm/company, then 50% will be included from the marks provided by the firm and 50% shall be evaluated by the respective Course Coordinators of the college by conducting appropriate theory and / or laboratory tests.

Procedure to drop Professional Elective / Open Elective course(s) and computation of Grade point

A student may accumulate up to 6 credits through such courses, and such credits will be considered in lieu of the Professional Elective and/or Open Elective courses. In this regard, a student is permitted to drop either 1 or 2 Professional Elective / Open Elective course(s) as per the procedure given below.

Table: Procedure to drop Professional Elective / Open Elective course(s)

No. of courses	Total No. of credits earned	Courses to be printed in the grade sheet	No. of Professional elective/ open elective can be dropped	No. of credits considered for GPA/CGPA calculation
1	2	1	-	-
2	4	2	1	3
3	6	3	2	6

- The credits earned by the student of the successfully completed Skill Based Courses shall be recorded in the grade sheet.
- If a student has not successfully completed the skill based courses during the semesters V, VI and VII, then the same shall not be recorded in the grade sheet.
- If a student earns 2 credits in Semester V and then enrolls for another 2 credits in Semester VI, then he / she is permitted to drop one Professional elective/ open elective course in Semester VI. Further, if the student earns 4 credits upto Semester VI and enrols for another 2 credits in Semester VII, then he/she is permitted to drop an additional professional elective/open elective course in the VII semester.

If the student has enrolled for skill based courses but has not successfully earned 4 or 6 credits and also dropped 1 or 2 PE/OE courses in anticipation of pass, then he/she has to enroll the PE/OE (as the case may be) to meet the total credit requirements to earn the degree.

Method for computation of Grade point of dropped PE / OE courses

The method of Computation of Grade point for the dropped PE/OE courses is given below:

1. If a student has successfully completed two Skill Based Courses, then the computation of Grade point for one PE/OE course dropped in lieu of those two skill based courses is as follows.

   Grade point = (2 credits * higher grade point obtained + 1 credit * lower grade point obtained) / 3 credits.

   For example, for two courses of two credit each, if the grades obtained are,
   Course 1– C grade – 5 points
   Course 2– O grade – 10 points

   Then, the grade point of the dropped course for the calculation of CGPA is obtained as: (1x5 + 2x10)/3 = 8.33.

   One PE/OE course shall be dropped for 3 credits with grade point computed as above.

2. If a student has successfully completed three Skill Based Courses, then the computation of Grade point for dropping two PE/OE in lieu of those three skill based courses is as follows.

For three courses of two credit each

Computation of Grade point of each of the two dropped PE/OE courses for the calculation of CGPA = Average grade point of three skill based courses.

Two PE/OE courses shall be dropped of 3 credits each, with grade point computed as above.

5 DURATION OF THE PROGRAMME

5.1 A student is ordinarily expected to complete the B.E. / B.Tech. Programme in 8 semesters (for HSC students) and six semesters (for Lateral Entry students) but in any case not more than 14 Semesters for HSC (or equivalent) students and not more than 12 semesters for Lateral Entry students.

5.1.1 A student is ordinarily expected to complete the B.E. Mechanical Engineering (Sandwich) Programme in 10 semesters (five academic years) but in any case not more than 18 Semesters for HSC (or equivalent) students.

5.2 Each semester shall normally consist of 75 working days or 540 periods of 50 minutes each. The Head of the Institution shall ensure that every teacher imparts instruction as per the number of periods specified in the syllabus and that the teacher teaches the full content of the specified syllabus for the course being taught.

5.3 The Head of the Institution may conduct additional classes for improvement, special coaching, conduct of model test etc., over and above the specified periods. But for the purpose of calculation of attendance requirement for writing the end semester examinations (as per clause 6) by the students, following method shall be used.

$$\text{Percentage of Attendance} = \frac{\text{Total no. of periods attended in all the courses per semester}}{\text{(No. of periods / week as prescribed in the curriculum) taken together for all courses of the semester} \times 15} \times 100$$

The University Examination will normally follow immediately after the last working day of the semester as per the academic schedule prescribed from time to time.

5.4 The total period for completion of the programme reckoned from the commencement of the first semester to which the student was admitted shall not exceed the maximum period specified in clause 5.1 irrespective of the period of break of study (vide clause 18) in order that he/she may be eligible for the award of the degree (vide clause 16).

6. COURSE REGISTRATION

6.1 The institution is responsible for registration of the courses that each student is proposing to undergo in the ensuing semester. Each student has to register for all courses to be undergone in the curriculum of a particular semester (with the facility to drop courses to a maximum of 6 credits (vide clause 6.2)). The courses dropped in earlier semesters can be registered in the subsequent semesters when offered.

Amendment of Clause 6.1

The registration details of the student shall be approved by the Head of the Institution and forwarded to the Controller of Examinations. This registration is for undergoing the course as well as for writing the End Semester Examinations.

The courses that a student registers in a particular semester may include

i. Courses of the current semester.
ii. Courses dropped in the lower semesters

The maximum number of credits that can be registered in a semester is 36. However, this does not include the number of Re-appearance (U) and Withdrawal (WD) courses registered by the student for the appearance of Examination.

6.2 Flexibility to Add or Drop courses

6.2.1 A student has to earn the total number of credits specified in the curriculum of the respective Programme of study in order to be eligible to obtain the degree.

6.2.2 From the second to final semesters, the student has the option of dropping existing courses in a semester during registration. Total number of credits of such courses shall not exceed 6 per semester. The student is permitted to drop the course(s) within 30 days of the commencement of the academic schedule.

6.2.3 From the V to VIII semesters, the student has the option of registering for additional courses in a semester. With regard to enrolling for B.E. / B. Tech. (Hons) or B.E. / B. Tech. Minor

Insertion of New Clause 6.2.3

The total number of credits that a student can add in a semester is limited to 6, subject to a maximum of 2 courses. Maximum number of credits enrolled in a semester (Honours and Minor) shall not exceed 36. The online courses registered for B.E. / B. Tech. (Hons.) and B.E. / B. Tech. minor shall be over and above this 36 credits.

6.3 Choice of Professional Elective Courses

Insertion of New Clause 6.3

The professional Elective Courses are listed in the Curriculum in Table format as verticals (Specialisation groups). A student can choose all the Professional Elective Courses either from one of the verticals or a combination of courses from all verticals in a semester. However, students irrespective of enrolling for additional

courses for B.E. / B. Tech. (Hons.) are not permitted to choose more than one course from a row. Students are permitted to enroll more than one elective course from the same vertical in a semester. In the subsequent semesters students are permitted to enroll one more course in a row, provided if he/she has cleared the earlier course of the same row. For a professional elective course and open elective course, minimum number of students enrolment permitted shall be 10. However, the minimum number is not applicable for students enrolling B.E. / B. Tech. (Hons) and B.E. / B. Tech. Minor. For the offer of each professional elective at least two choices shall be offered.

7. ATTENDANCE REQUIREMENTS FOR COMPLETION OF THE SEMESTER

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

Ideally every student is expected to attend all classes of all the courses and secure 100% attendance. However, in order to give provision for certain unavoidable reasons such as medical / participation in sports, the student is expected to attend at least 75% of the classes.

Therefore, he/she shall **secure not less than 75%** (after rounding off to the nearest integer) of overall attendance as calculated as per clause 5.3.

7.2 However, a student who secures overall attendance between 65% and 74% in the current semester due to medical reasons (prolonged hospitalization / accident / specific illness) / participation in sports events may be permitted to appear for the current semester examinations, subject to the condition that the student shall submit the medical certificate / sports participation certificate attested by the Head of the Institution. The same shall be forwarded to the Controller of Examinations for record purposes.

7.3 Students who **secure less than 65% overall attendance** shall not be permitted to write the University examination at the end of the semester and not permitted to move to the next semester. They are required to repeat the incomplete semester in the next academic year, as per the norms prescribed.

8. CLASS ADVISOR

There shall be a class advisor for each class. The class advisor will be one among the course-instructors of the class. He / She will be appointed by the HOD of the department concerned. The class advisor is the ex-officio member and the Convener of the class committee. The responsibilities for the class advisor shall be:

- To act as the channel of communication between the HOD and the students of the respective class.

- To collect and maintain various statistical details of students.
- To help the chairperson of the class committee in planning and conduct of the class committee meetings.
- To monitor the academic performance of the students including attendance and to inform the class committee.
- To attend to the students' welfare activities like awards, medals, scholarships and industrial visits.

9. CLASS COMMITTEE

9.1. Every class shall have a class committee consisting of teachers of the class concerned, student representatives and a chairperson, who is not teaching the class. It is like the 'Quality Circle' (more commonly used in industries) with the overall goal of improving the teaching- learning process. The functions of the class committee include:

- Solving problems experienced by students in the class room and in the laboratories.
- Clarifying the regulations of the degree programme and the details of rules therein particularly (clause 5 and 7).
- Informing the student representatives, the academic schedule including the dates of assessments and the syllabus coverage for each assessment.
- Informing the student representatives the details of Regulations regarding weightage used for each assessment. In the case of practical courses (laboratory / 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.
- 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 slow-learners, if any, and requesting the teachers concerned to provide some additional help or guidance or coaching to such students.

9.2 The class committee for a class under a particular branch is normally constituted by the Head of the Department. However, if the students of different branches are mixed in a class (like the first semester which is generally common to all branches), the class committee is to be constituted by the Head of the Institution.

9.3 The class committee shall be constituted within the first week of each semester.

9.4 At least 4 student representatives (usually 2 boys and 2 girls) shall be included in the class committee, covering all the elective courses.

9.5 The chairperson of the class committee may invite the class adviser(s) and the Head of the Department to the class committee meeting.

9.6 The Head of the Institution 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 the Head of the Institution 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 Head of the Institution.

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 weightage of assessments within the framework of the Regulations. Two or three subsequent meetings may be held in a semester at suitable intervals. **The Class Committee Chairperson shall display the cumulative attendance particulars of each student on the Notice Board at the end of every such meeting to enable the students to know their attendance details to satisfy the clause 6 of this Regulation.** During these meetings the student members representing the entire class, shall meaningfully interact and express the opinions and suggestions of the other students of the class in order to improve the effectiveness of the teaching-learning process.

10. COURSE COMMITTEE FOR COMMON COURSES

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 the course coordinator. The nomination of the course coordinator shall be made by the Head of the Department / Head of the Institution depending upon whether all the teachers teaching the common course belong to a single department or to several departments. The 'Course Committee' shall meet in order to arrive at a common scheme of evaluation for the test and shall ensure a uniform evaluation of the tests. Wherever feasible, the Course Committee may also prepare a common question paper for the internal assessment test(s).

11. SYSTEM OF EXAMINATION

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

11.2 Each course, both theory and practical (including project work & viva voce examinations) 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 University examination will carry **60 marks.**

11.2.2 For all theory courses with laboratory component, the continuous internal assessment will carry **50 marks** while the End Semester University examination will carry **50 marks.**

11.2.3 For all laboratory courses, the continuous internal assessment will carry **60 marks** while the End Semester University examination will carry **40 marks.**

11.2.4 The continuous internal assessment for the project work will carry **60 marks** while the End Semester University examination will carry **40 marks.**

Amendment of Clause 11.2.4

11.3 Industrial Training and Seminar shall carry 100 marks and shall be evaluated through internal assessment only.

11.4 The University examination (theory and practical) of 3 hours duration shall ordinarily be conducted between October and December during the odd semesters and between April and June during the even semesters.

11.5 The University examination for Project Work shall consist of evaluation of the final report submitted by the student or students of the project group (of not exceeding 4 students) by an external examiner and an internal examiner, followed by a viva-voce examination conducted separately for each student by a committee consisting of the external examiner, the supervisor of the project group and an internal examiner.

11.6 For the University examination of practical courses including Project Work, the internal and external examiners shall be appointed by the Controller of Examinations.

12. PROCEDURE FOR AWARDING MARKS FOR INTERNAL ASSESSMENT

12.1 **THEORY COURSES**

Amendment of Clause 12.1

Two assessments each carrying 100 marks shall be conducted during the semester by the Department / College concerned. The total marks obtained in all assessments put together out of 200, shall be proportionately reduced for 40 marks and rounded to the nearest integer (This also implies equal weightage to the two assessments).

Assessment I (100 Marks)		Assessment II (100 Marks)		Total Internal Assessment
Individual Assignment / Case Study/ Seminar /Mini Project / any other experiential Learning	Written Test	Individual Assignment / Case Study / Seminar /Mini Project / any other experiential Learning	Written Test	
40	60	40	60	200*

*The weighted average shall be converted into 40 marks for internal Assessment.

A minimum of two internal assessments will be conducted as a part of continuous assessment. Each internal assessment is to be conducted for 100 marks and will have to be distributed in two parts viz., Individual Assignment / Case study / Seminar / Mini project / any other experiential learning and Test with each having a weightage of 40% and 60% respectively. The tests shall be in written mode. The total internal assessment marks of 200 shall be converted into a maximum of 40 marks and rounded to the nearest integer.

12.2 **LABORATORY COURSES**

The maximum marks for Internal Assessment shall be 60 marks in case of practical courses. Every practical exercise / experiment shall be evaluated based on conduct of experiment / exercise and records to be maintained. There shall be at least one test. The criteria for arriving at the Internal Assessment marks of 60 is as follows: 75 marks shall be awarded for successful completion of all the prescribed experiments done in the Laboratory and 25 marks for the test. The total mark shall be converted into a maximum of 60 marks and rounded to the nearest integer.

Internal Assessment (100 Marks)*	
Evaluation of Laboratory Observation, Record	Test
75	25

* Internal assessment marks shall be converted into 60 marks

12.3 **THEORY COURSES WITH LABORATORY COMPONENT / LABORATORY COURSES WITH THEORY COMPONENT**

Amendment of Clause 12.3

Weightage of internal assessment and end semester examination marks will be 50% each. The distribution of marks for the theory and laboratory components in the internal assessments and end semester examination for different types of courses are provided in the table.

L	T	P	C	Internal Assessment 1	Internal Assessment 2	End Semester Examination
1	0	4	3	Lab (25%)	Theory (25%)	Lab only (50%)
1	0	2	2	Lab (25%)	Theory (25%)	Lab only (50%)
2	0	2	3	Theory (25%)	Lab (25%)	Theory (25%) Lab (25%)
3	0	2	4	Theory (25%)	Lab (25%)	Theory (35%) Lab (15%)
2	0	4	4	Theory (25%)	Laboratory (25%)	Theory (15%) Lab(35%)

The procedure for the conduct of internal assessments for theory and laboratory components shall be as per the clause 12.1 and 12.2 respectively.

*The weighted average shall be converted into 50 marks for internal Assessment.

12.4 **PROJECT WORK / INTERNSHIP**

Amendment of Clause 12.4

The student shall register for Project Work in final semester. Project work may be allotted to a single student or to a group of students not exceeding 4 per group. The student is also permitted to undergo a semester long internship in an industry / academic / research institution.

12.4.1 Project Work shall be carried out under the supervision of a “qualified teacher” in the Department concerned. In this context “qualified teacher” means the faculty member possessing (i) PG degree or (ii) Ph.D. degree.

12.4.2 The Project Work carried out in industry / academic/research institution shall be jointly supervised. The Project Work shall be jointly supervised by a supervisor of the department and an expert from the organization as a joint supervisor and the student shall be instructed to meet the supervisor periodically and to attend the review committee meetings for evaluating the progress. The review meetings, if necessary, may also be arranged in online mode with prior approval from the Head of the Institution and suitable record of the meetings shall be maintained.

Amendment of Clause 12.4.2

12.4.3 The Head of the Institutions shall constitute a review committee for Project Work for each programme. The review committee consists of supervisor, an expert from the Department and a project coordinator from the Department. If the project coordinator/expert member happens to be the supervisor, then an alternate member shall be nominated. In the case of Industrial Project / Internship, the review committee shall consist of the supervisor, the coordinator from industry and the project coordinator from the Department.

Amendment of Clause 12.4.3

There shall be three reviews conducted by the review committee. The student shall make presentation on the progress made by him / her before the committee. The total marks obtained in the three reviews shall be **reduced for 60 marks** and rounded to the nearest integer (as per the scheme given in 12.4.4).

12.4.4 The project report shall carry a maximum of 10 marks. The project report shall be submitted as per the approved guidelines as given by the Director, Centre for Academic Courses. Same marks shall be awarded to every student within the project group for the project report. The viva-voce examination shall carry 30 marks. Marks awarded to each student of the project group is based on the individual performance in the viva-voce examination.

Amendment of Clause 12.4.4

Continuous Assessment (60 Marks)			**End Semester Examinations (40 Marks)**			
Review I	**Review II**	**Review III**	**Project Report**	**Viva-Voce Examination**		
20	20	20	External	Internal	External	Supervisor
			10	10	10	10

In the case of industrial projects, the marks allotted for supervisor will be shared equally by the supervisor from the Department and coordinator from Industry.

12.4.5 The last date for submission of the project report is on the last working day of the semester. If a student fails to submit the project report on or before the specified deadline, it will be considered as fail in the Project Work and the student shall re-register for the same in the subsequent semester.

Amendment of Clause 12.4.5

12.4.6 Students shall also undertake a start-up activity for the development of products as part of project work. If the outcome of a start-up is a fully developed product and whose concept is tested and validated, then it shall be considered in lieu of the project work. Such students shall submit a start up report, which includes the concepts and process flow of the developed product, publications and patents, if any.

Insertion of New Clause 12.4.6

The evaluation of the start-up report is as per the clause 12.4.4.

12.5 **OTHER EMPLOYABILITY ENHANCEMENT COURSES**

(a) The Seminar / Case Study / Mini Project course is to be considered as purely INTERNAL (with 100% internal marks only). Every student is expected to present a minimum of 2 seminars per semester before the evaluation committee and for each seminar, marks can be equally apportioned. The three member committee appointed by the Head of the Institution, consisting of the course coordinator and two experts from the Department, will evaluate the seminar and at the end of the semester, the marks shall be consolidated and taken as the final mark. The evaluation shall be based on the seminar paper (40%), presentation (40%) and response to the questions asked during presentation (20%).

(b) The Industrial / Practical Training, Summer Project, Internship, shall carry 100 marks and shall be evaluated through internal assessment only. At the end of Industrial / Practical Training / Internship / Summer Project, the student shall submit an attendance certificate from the organization where he / she has undergone training and a brief report. The evaluation will be made based on this report and a viva-voce Examination, conducted internally by a three member Departmental Committee constituted by the Head of the Institution consisting of the course coordinator and two experts from the Department. The certificates (issued by the organization) submitted by the students shall be attached to the mark list sent by the Head of the Institution to the Controller of Examinations.

(c) For all the courses under Employability Enhancement Courses Category, except the Project Work, the evaluation shall be done with 100% internal marks and as per the procedure described in clause 12.5 (a) / (b).

12.6 ASSESSMENT FOR VALUE ADDED COURSE

Amendment of Clause 12.6

The value added course shall carry 100 marks and shall be evaluated through **continuous assessments only**. Two Assessments shall be conducted during the semester by the Department concerned. The total marks obtained in the tests shall be reduced to 100 marks and rounded to the nearest integer. A committee consisting of the Head of the Department, staff handling the course and a senior faculty member nominated by the Head of the Institution shall do the evaluation process. The list of students along with the marks and the grades earned shall be forwarded to the Controller of Examinations for appropriate action at least one month before the commencement of End Semester Examinations. The grades earned by the

students for Value Added Courses will be recorded in the Grade Sheet, however the same shall not be considered for the computation of CGPA.

12.7 **Omitted**

12.8. **Internal marks approved by the Head of the Institution shall be displayed by the respective HODs within 5 days from the last working day.**

12.9 **Attendance Record**

Every teacher is required to maintain an 'ATTENDANCE AND ASSESSMENT RECORD', which consists of attendance marked in each lecture or practical or project work class, the test marks and the record of class work (topic covered), separately for each course. This should be submitted to the Head of the Department periodically (at least three times in a semester) for checking the syllabus coverage and the records of test marks and attendance. The Head of the Department will put his/her signature and date after due verification. At the end of the semester, the record should be verified by the Head of the Institution who will keep this document in safe custody (for five years). The University or any inspection team appointed by the University may verify the records of attendance and assessment of both current and previous semesters.

12.10 **Conduct of Academic Audit by every Institution**

Every educational institution shall strive for a better performance of the students by conducting the internal assessments as mentioned in Clause 12.

In order to ensure the above, Academic Audit is to be done for every course taught during the semester. For the internal assessments conducted for each course as per details provided in Clause 12, the academic records shall be maintained in the form of documentation for the individual assignments / case study report / report of mini project submitted by each student and assessment test question paper and answer script. Report of industrial training / internship shall also be maintained, if applicable. For laboratory courses students' record shall be maintained. Further, the attendance of all students shall be maintained as a record.

The Head of the Institution shall arrange to conduct the Academic Audit for every course in a semester by forming the respective committees with an external course expert as one of the members drawn from a Technical institution of repute near the institute.

The University or any inspection team appointed by the University may verify the records of Academic Audit report of the courses of both current and previous semesters, as and when required.

13. REQUIREMENTS FOR APPEARING FOR UNIVERSITY EXAMINATIONS

A student shall normally be permitted to appear for the University Examinations for all the courses registered in the current semester (vide clause 6) if he/she has satisfied the semester completion requirements (as per clause 7).

Further, examination registration by a student is mandatory for all the courses in the current semester and all arrear(s) course(s) for the University examinations failing which, the student will not be permitted to move to the higher semester.

A student who has already appeared for any course in a semester and passed the examination is not entitled to reappear in the same subject for improvement of grades

14. PASSING REQUIREMENTS

14.1 A student who secures not less than 50% of total marks prescribed for the course [Internal Assessment + End semester University Examinations] with a minimum of 45% of the marks prescribed for the end-semester University Examination, shall be declared to have passed the course and acquired the relevant number of credits. This is applicable for both theory and laboratory courses (including project work).

14.2 If a student fails to secure a pass in a theory course / laboratory course (except electives), the student shall register and appear only for the end semester examination in the subsequent semester. In such case, the internal assessment marks obtained by the student in the first appearance shall be retained and considered valid for all subsequent attempts till the student secures a pass. However, from the third attempt onwards if a student fails to obtain pass marks (IA + End Semester Examination) as per clause 14.1, then the student shall be declared to have passed the examination if he/she secures a minimum of 50% marks prescribed for the University end semester examinations alone.

14.3 If the course, in which the student has failed, is a Professional Elective or an Open Elective course, the student may be permitted to complete the same course**.** In such case, the internal assessment marks obtained by the student in the first appearance shall be retained and considered valid for all subsequent attempts till the candidate secures a pass. However, from the third attempt onwards if a candidate fails to obtain pass marks (IA + End Semester Examination) as per clause 14.1, then the candidate shall be declared to have passed the examination if he/she secures a minimum of 50% marks prescribed for the University end semester examinations alone.

If any other Professional Elective or Open Elective course is opted by the student,

the previous registration is cancelled and henceforth it is to be considered as a new Professional Elective or Open Elective course. The student has to register and attend the classes, earn the continuous assessment marks, fulfil the attendance requirements as per clause 7 and appear for the end semester examination.

14.4 If a student has submitted the project report but absent in the end semester examination of project work, the student is deemed to be failed. In this case and also if a student attends and fails in the End semester examination of Project work of B.E. / B.Tech, he/she shall attend end semester examination again within 60 days from the date of declaration of the results. The subsequent viva-voce examination will be considered as reappearance with payment of exam fee. In case, the student fails in the subsequent viva-voce examination also, the student shall redo the course again, when offered next.

Amendment of Clause 14.4

14.5 The passing requirement for the courses which are assessed only through purely internal assessments (EEC courses except Project Work and laboratory), is 50% of the internal assessment (continuous assessment) marks only.

14.6 A student can apply for revaluation of the student's semester examination answer paper in a theory course, as per the guidelines of the COE on payment of a prescribed fee along with prescribed application to the COE through the Head of the Institution. The COE will arrange for the revaluation and the results will be intimated to the student concerned through the Head of the Institution. Revaluation is not permitted for laboratory course and EEC courses.

15. AWARD OF LETTER GRADES

15.1 The award of letter grades will be decided using relative grading principle except Laboratory Courses and Project Work. The performance of a student will be reported using letter grades, each carrying certain points as detailed below:

Amendment of Clause 15.1

Letter Grade	Grade Points*
O (Outstanding)	**10**
A + (Excellent)	**9**
A (Very Good)	**8**
B + (Good)	**7**
B (Average)	**6**
C (Satisfactory)	**5**
U (Re-appearance)	**0**
SA (Shortage of Attendance)	**0**
WD (Withdrawal)	**0**

A student is deemed to have passed and acquired the corresponding credits in a particular course if he/she obtains any one of the following grades: “O”, “A+”, “A”, “B+”,“B”, “C”.

‘SA’ denotes shortage of attendance (as per clause 7.3) and hence prevented from writing the end semester examinations. ‘SA’ will appear only in the result sheet.

“U” denotes that the student has failed to pass in that course. “WD” denotes withdrawal from the exam for the particular course. The grades U and W will figure both in the Grade Sheet as well as in the Result Sheet. In both cases, the student has to appear for the End Semester Examinations as per the Regulations.

If the grade U is given to Theory Courses/ Laboratory Courses it is not required to satisfy the attendance requirements (vide clause 7), but has to appear for the end semester examination and fulfil the norms specified in clause 14 to earn a pass in the respective courses.

If the grade U is given to EEC course (except Project Work), which are evaluated only through internal assessment, the student shall register for the course again in the subsequent semester, fulfil the norms as specified in clause 14 to earn pass in the course. However, attendance requirement need not be satisfied.

15.1.1 **Relative Grading**

Insertion of New Clause 15.1.1

For those students who have passed the course (theory course / laboratory integrated courses / theory integrated courses / all other EEC except laboratory course / Project Work Courses), the relative grading shall be done. The marks of those students who have passed only shall be inputted in the software developed for relative grading. The evolved relative grading method normalizes the results data using the BOX-COX transformation method and computes the grade range for each course separately and awards the grade to each student. (theory course / laboratory integrated courses / theory integrated courses and all other EEC Courses). If the students’ strength is greater than 30, the relative grading method shall be adopted.

15.1.2 **Absolute Grading**

Insertion of New Clause 15.1.2

- In all the courses, if the number of students who have passed the course is less than or equal to 30 then absolute grading shall be followed with the grade range as specified in the Table.
- For the Project Work / Internship and Laboratory Courses, absolute grading procedure shall be followed as given in the Table below irrespective of the number of students who have passed the course.

Table – Grade range for absolute grading

O	**A+**	**A**	**B+**	**B**	**C**	***U***
91 - 100	81 - 90	71 - 80	61 - 70	56 - 60	50 – 55	< 50

15.2 For the Co-curricular activities such as National Cadet Corps (NCC)/ National Service Scheme (NSS) / NSO / YRC / Science club / Literary Club/ Fine Arts Club, a 'completed' remark will appear in the Grade Sheet on successful completion of the same. Every student shall put in a minimum of 75% attendance in the training and attend the camp or events of the clubs compulsorily. The training and camp or club events shall be completed during the first year of the programme. However, for valid reasons, the Head of the Institution may permit a student to complete this requirement in the subsequent years.

Successful completion of any one of the above co-curricular activities is compulsory for the award of degree.

15.3 The grades O, A+, A, B+, B, C obtained for the one/two credit course (not the part of curriculum) shall figure in the Grade Sheet under the title **'Value Added Courses/Internship/Industrial training'**. The courses for which the grades obtained are RA, SA **will not figure in the Grade Sheet.**

15.4 For the students who complete the Mandatory Course satisfying attendance requirement, the title of the Mandatory Course will be mentioned in the Grade Sheet.

Amendment of Clause 15.4

15.5 **GRADE SHEET**

Amendment of Clause 15.5

After results are declared, Grade Sheets will be issued to each student which will contain the following details:

- The college in which the student has studied
- List of courses studied for Hons., minor and any other additional courses in which the student has passed with the grades under the title additional courses.
- The Grade Point Average (GPA) for the semester considering only the courses of curriculum (not the additional courses) and
- The Cumulative Grade Point Average (CGPA) of all courses registered from first semester onwards considering only the courses of curriculum (not the additional courses). However, for the students who have successfully completed the requirements of B.E. / B. Tech. (Hons) and B.E. / B.Tech. Minor vide Clause 4.10, grades scored in the six additional courses shall be taken into account for the computation of CGPA.

During each semester, the list of curricular courses (not the additional courses) registered and the grades scored in each course are used to compute the Grade Point Average (GPA). GPA is the ratio of the sum of the products of the number of credits of curricular courses (not the additional courses) registered and the grade points corresponding to the grades scored in those courses, taken for all the courses, to the sum of the number of credits of all the courses in the semester. U grades will be excluded for calculating GPA and CGPA.

$$\text{GPA / CGPA} = \frac{\sum_{i=1}^{n} C_i \, GP_i}{\sum_{i=1}^{n} C_i}$$

where C_i is the number of Credits assigned to the course

GP_i is the point corresponding to the grade obtained for each course

n is number of all courses successfully cleared during the particular semester in the case of GPA and during all the semesters in the case of CGPA.

15.5.1 If a student studies more number of professional and open electives than required as per the student's programme curriculum, the calculation of final CGPA shall be as per 4.10.6 and 4.10.7. **Insertion of New Clause 15.5.1**

15.5.2 If a student successfully completes all the requirements of the programme and also meets the requirements of B.E. / B. Tech. (Hons) or B.E. / B. Tech. Minor but desires not to opt for the additional qualification, then he/she has to submit a declaration with regard to the same 30 days before the completion of VIII semester. **Insertion of New Claus 15.5.2**

15.5.3 In the consolidated grade sheet the CGPA earned shall be converted into percentage of marks as follows: **Insertion of New Clause 15.5.3**

Percentage of Marks = CGPA × 10.

16 ELIGIBILITY FOR THE AWARD OF THE DEGREE

16.1 A student shall be declared to be eligible for the award of the B.E. / B.Tech. Degree provided the student has

i. Successfully gained the required number of total credits as specified in the curriculum corresponding to the student's programme within the stipulated time.

ii. Successfully completed the course requirements, appeared for the End -

Semester examinations and passed all the subjects within the period as prescribed in clause 5.1 and 5.1.1.

iii. Successfully passed any additional courses prescribed by the Director, Centre for Academic Courses whenever the student is readmitted under Regulations R-2021 from the earlier Regulations.

iv. Successfully completed the NCC / NSS / NSO / YRC / Science Club / Literature Club / Fine Arts Club requirements.

v. No disciplinary action pending against the student.

vi. The award of Degree must have been approved by the Syndicate of the University.

16.2 **CLASSIFICATION OF THE DEGREE AWARDED**

16.2.1 **FIRST CLASS WITH DISTINCTION:**

Amendment of Clause 16.2.1

A student who satisfies the following conditions shall be declared to have passed the examination in **First class with Distinction:**

- Should have passed the examination in all the courses of all the eight semesters (10 Semesters in case of Mechanical (Sandwich) and 6 semesters in the case of Lateral Entry) in the student's First Appearance within **five** years (Six years in the case of Mechanical (Sandwich) and Four years in the case of Lateral Entry). Withdrawal from examination (vide Clause 17) will not be considered as an appearance.
- Should have secured a CGPA of not less than **8.50**.
- One year authorized break of study (if availed of) is included in the five years (Six years in the case of Mechanical (Sandwich) and four years in the case of lateral entry) for award of First class with Distinction.
- Should not have been prevented from writing end semester examination in any of the courses of the Curriculum making up the total credit requirement.
- A student who satisfies norms given in clause 4.10 becomes eligible for classification of the degree with B.E./B.Tech. (Hons) and B.E./B.Tech. minor.

Details are provided in Table

Degree (i)	**Duration of programme (ii)**	**Duration permitted (iii)**	**Additional credits above the requirement of curriculum (iv)**	**CGPA (v)**	**Pass in (vi)**	**Break of study (vii)**	**Prevention to write end semester examination**	**Withdrawal from writing end semester examination (viii)**

B.E./ B.Tech. (Regular)	4 years	5 years	-	8.50	First attempt	One year authorised break of study included in the Duration permitted (iii)	Not permitted	Will not be considered as an attempt
B.E./ B.Tech. (sandwich)	5 years	6 years	-	8.50	First attempt	One year authorised break of study included in the Duration permitted (iii)	Not permitted	Will not be considered as an attempt
B.E./ B.Tech. Lateral Entry	3 years	4 years	-	8.50	First attempt	One year authorised break of study included in the Duration permitted (iii)	Not permitted	Will not be considered as an attempt
B.E./ B.Tech. (Hons)	3/4/5 years (Lateral entry, Regular, Sandwich respectively)	4/5/6 years (Lateral entry, Regular, Sandwich respectively)	18 credits from more than one verticals of the same programme	8.50	First attempt	One year authorised break of study included in the Duration permitted (iii)	Not permitted	Will not be considered as an attempt
B.E./ B.Tech. minor	3/4/5 years (Lateral entry, Regular, Sandwich	4/5/6 years (Lateral entry, Regular,	18 credits from any one vertical of the	8.50	First attempt	One year authorised break of study included	Not permitted	Will not be considered as an attempt

	respectiv ely)	Sand wich respe ctively)	other progra mme			in the Duration permitte d (iii)		

16.2.2 **FIRST CLASS:**

Amendment of Clause 16.2.2

A student who satisfies the following conditions shall be declared to have passed the examination in **First class:**

- Should have passed the examination in all the courses of all eight semesters (10 Semesters in case of Mechanical (Sandwich) and 6 semesters in the case of Lateral Entry) **within five years**. (Six years in case of Mechanical (Sandwich) and Four years in the case of Lateral Entry).
- One year authorized break of study (if availed of) or prevention from writing the End Semester examination due to lack of attendance (if applicable) is included in the duration of five years (Six years in case of Mechanical (Sandwich) and four years in the case of lateral entry) for award of First class.
- Should have secured a CGPA of not less than **6.50.**
- A student who satisfies norms given in clause 4.10 becomes eligible for classification of the degree with B.E./B.Tech. (Honours) and B.E./B.Tech. minor.

Details are provided in Table

Degree (i)	**Duratio n of progra mme (ii)**	**Durat ion permi tted (iii)**	**Additio nal credits (iv)**	**CG PA (v)**	**Pas s in (vi)**	**Break of study (vii)**	**Prevent ion to write end semest er examin ation**	**Withdraw al from writing end semester examinati on (viii)**
B.E./ B.Tech. (Regular)	4 years	5 years	-	6.50	-	One year authoris ed break of study included in the Duration permitte d (iii)	Included in the Duration permitted (iii)	-

B.E./ B.Tech. (sandwich)	5 years	6 years	-	6.50	-	One year authorised break of study included in the Duration permitted (iii)	Included in the Duration permitted (iii)	-
B.E./ B.Tech. Lateral Entry	3 years	4 years	-	6.50	-	One year authorised break of study included in the Duration permitted (iii)	Included in the Duration permitted (iii)	-
B.E./ B.Tech. (Hons)	3/4/5 years (Lateral entry, Regular, Sandwich respectively)	4/5/6 years (Lateral entry, Regular, Sandwich respectively)	18 credits from more than one verticals of the same programme	7.50	First attempt	One year authorised break of study included in the Duration permitted (iii)	Not permitted	Will not be considered as an attempt
B.E./ B.Tech. minor	3/4/5 years (Lateral entry, Regular, Sandwich respectively)	4/5/6 years (Lateral entry, Regular, Sandwich respectively)	18 credits from any one vertical of the other programme	6.50	-	One year authorised break of study included in the Duration permitted (iii)	Included in the Duration permitted (iii)	-

16.2.3 Students who pursue B.E./B.Tech. in Regular mode or lateral entry mode or B.E./B.Tech. minor in specialisation of another discipline and who are not covered in clauses 16.2.1 and 16.2.2 and who qualify for the award of the degree **(**vide Clause 16.1) shall be declared to have passed the examination in **Second Class**.

Amendment of Clause 16.2.3

16.2.4 A student who is absent in the End Semester Examination in a course / project work after having registered for the same shall be considered to have appeared in that examination (except approved withdrawal from end semester examinations as per clause 15) for the purpose of classification.

Insertion of New Clause 16.2.4

16.2.5 Student earned additional 18 credits as per Clause 4.10 (i) and (ii) but does not satisfy the conditions mentioned in 16.2.1 or 16.2.2 shall not be awarded B.E./B.Tech.(Hons.) In such case if the student becomes eligible for First Class, while computing CGPA with the Professional Elective / Open Elective courses with higher grades the student shall be awarded B.E. / B.Tech. in First Class only.

Amendment of Clause 16.2.4

16.3 A student who is absent in end semester examination in a course / project work after having registered for the same shall be considered to have appeared in that examination for the purpose of classification. (subject to clause 17).

16.4 **Photocopy / Revaluation**

A student can apply for photocopy of his/her semester examination answer paper in a theory course, as per the guidelines of the COE, on payment of a prescribed fee through proper application to the Controller of Examinations through the Head of the Institutions. The answer script is to be valued and justified by a faculty member, who has handled the subject and recommend for revaluation with the breakup of marks for each question. Based on the recommendation, the student can register for the revaluation through proper application to the Controller of Examinations. The Controller of Examinations will arrange for the revaluation and the results will be intimated to the student concerned through the Head of the Institutions. Revaluation is not permitted for practical courses and EEC courses.

A student can apply for revaluation of answer scripts for not exceeding 5 subjects at a time.

16.5 **Review**

Students not satisfied with Revaluation can apply for Review of his/ her examination answer paper in a theory course, within the prescribed date on payment of a prescribed fee through proper application to the Controller of Examinations through the Head of the Institution.

Students applying for Revaluation only are eligible to apply for Review.

17. PROVISION FOR WITHDRAWAL FROM END-SEMESTER EXAMINATION

17.1 A student may, for valid reasons, (medically unfit / unexpected family situations / sports approved by the Chairman, Sports Board and the HOD) be granted permission to withdraw from appearing for the end semester examination

in any course or courses in **ANY ONE** of the semester examinations during the entire duration of the degree programme. The application shall be sent to the COE through the Head of the Institutions with required documents.

17.2 Withdrawal application is valid if the student is otherwise eligible to write the examination (Clause 7) and if it is made within TEN days after the date of the examination(s) in that course or courses and recommended by the Head of the Institution and approved by the Controller of Examinations. For a student to withdraw from a course / courses, he/she should have registered for the course, fulfilled the attendance requirements (vide clause 7) and earned continuous assessment marks.

17.2.1 Notwithstanding the requirement of mandatory 10 days, applications for withdrawal for special cases under extraordinary conditions will be considered on the merit of the case.

17.3 In case of withdrawal from a course / courses, the courses will figure both in the Grade Sheet as well as in the Result Sheet. However, withdrawal shall not be considered as an appearance for the eligibility of a student for First Class with Distinction.

17.4 If a student withdraws from writing end semester examinations for a course or courses, he/she shall register for the same in the subsequent semester and write the end semester examination(s).

17.5 If a student applies for withdrawal from Project Work, he/she will be permitted for the withdrawal only if the student has submitted the project report before the deadline. However, the student may appear for the viva-voce examination within 60 days after the declaration of results for Project Work and the same shall not be considered as reappearance.

Amendment of Clause 17.5

17.6 Withdrawal is permitted for the end semester examinations in the final semester, as per clause 16.2.1.

18. PROVISION FOR AUTHORISED BREAK OF STUDY

18.1 A student is permitted to go on authorised break of study for a maximum period of one year as a single spell.

18.2 Break of Study shall be granted only once for valid reasons for a maximum of one year during the entire period of study of the degree programme. However, in extraordinary situation the student may apply for additional break of study not exceeding another one year. If a student intends to temporarily discontinue the

programme in the middle of the semester for valid reasons, and to re-join the programme in a subsequent year, permission may be granted based on the merits of the case provided he / she applies to the Director, Student Affairs in advance, but not later than the last date for registering for the end semester examination of the semester in question, through the Head of the Institution stating the reasons therefore and the probable date of re-joining the programme.

18.3 The candidates permitted to rejoin the programme after break of study / prevention due to lack of attendance, shall be governed by the Curriculum and Regulations in force at the time of rejoining. The students rejoining in new Regulations shall apply to the Director, Academic Courses in the prescribed format through Head of the Institution at the beginning of the readmitted semester itself for prescribing additional courses, if any, from any semester of the regulations in-force, so as to bridge the curriculum in-force and the old curriculum.

18.3.1 Total number of credits to be earned by the student shall be more than or equal to the total number of credits prescribed in the curriculum in force. If the credit assigned for L T P of the courses are not same in two Regulations under consideration, then equivalence shall be arrived as per the credit assignment followed in the Regulations in force.

Insertion of New Clause 18.3.1

18.4 The authorized break of study is included in the duration specified for passing all the courses for the purpose of classification (vide Clause 16.2).

18.5 The total period for completion of the Programme reckoned from, the commencement of the first semester to which the candidate was admitted shall not exceed the maximum period specified in clause 5.1 irrespective of the period of break of study in order that he/she may be eligible for the award of the degree.

18.6 If any student is prevented for want of required attendance, the period of prevention shall not be considered as authorized 'Break of Study' (Clause 18.1).

18.7 If a student in Full Time mode wants to take up a job / start-up / entrepreneurship during the period of study he/she shall apply for authorised break of study for one year. The student shall join the job / start-up / entrepreneurship only after getting approval of the same by the Director, Centre for Academic Courses with due proof to that effect.

18.8 No fee is applicable to students during the Break of Study period.

19. DISCIPLINE

19.1 Every student is required to observe disciplined and decorous behaviour both inside and outside the college and not to indulge in any activity which will tend to bring down the prestige of the University / College. The Head of the Institution shall constitute a disciplinary committee consisting of the Head of the Institution, Two Heads of Department of which one should be from the faculty of the student, to enquire into acts of indiscipline and notify the University about the disciplinary action recommended for approval. In case of any serious disciplinary action which leads to suspension or dismissal, then a committee shall be constituted including one representative from Anna University, Chennai. In this regard, the member will be nominated by the University on getting information from the Head of the Institution.

19.2 If a student indulges in malpractice in any of the University / internal examination he / she shall be liable for punitive action as prescribed by the University from time to time.

20. REVISION OF REGULATIONS, CURRICULUM AND SYLLABI

The University may from time to time revise, amend or change the Regulations, curriculum, syllabus and scheme of examinations through the Academic Council with the approval of the Syndicate.

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ANNA UNIVERSITY, CHENNAI - 600 025

AFFILIATED INSTITUTIONS

REGULATIONS 2017

CHOICE BASED CREDIT SYSTEM

Common to all B.E. / B.Tech. Full-Time Programmes

(For the students admitted to B.E. / B.Tech. Programme at various Affiliated Institutions)

DEGREE OF BACHELOR OF ENGINEERING / BACHELOR OF TECHNOLOGY

This Regulations is applicable to the students admitted to B.E/B.Tech. Programmes at all Engineering Colleges affiliated to Anna University, Chennai (other than Autonomous Colleges) and to all the University Colleges of Engineering of Anna University, Chennai from the academic year 2017-2018 onwards.

1 PRELIMINARY DEFINITIONS AND NOMENCLATURE

In these Regulations, unless the context otherwise requires:

I. "**Programme"** means Degree Programme, that is B.E./B.Tech. Degree Programme.

II. "**Discipline"** means specialization or branch of B.E./B.Tech. Degree Programme, like Civil Engineering, Textile Technology, etc.

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

IV. **"Director, Academic Courses"** means the authority of the University who is responsible for all academic activities of the Academic Programmes for implementation of relevant rules of this Regulations pertaining to the Academic Programmes.

V. **"Chairman"** means the Head of the Faculty.

VI. **"Head of the Institution"** means the Principal of the College.

VII. **"Head of the Department"** means head of the Department concerned.

VIII. **"Controller of Examinations"** means the authority of the University who is responsible for all activities of the University Examinations.

IX. **"University"** means ANNA UNIVERSITY, CHENNAI.

2 ADMISSION

2.1 Candidates seeking admission to the first semester of the eight semester B.E. / B.Tech. Degree Programme:

Should have passed the Higher Secondary Examinations of (10+2) Curriculum (Academic Stream) prescribed by the Government of Tamil Nadu with Mathematics, Physics and Chemistry as three of the four subjects of study under Part-III or any examination of any other University or authority accepted by the Syndicate of Anna University as equivalent thereto.

(OR)

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, Tamilnadu or its equivalent are eligible to apply for Lateral entry 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 subject at the B.Sc. Level are eligible to apply for Lateral entry admission to the third semester of B.E. / B.Tech.

Such candidates shall undergo two additional Engineering subject(s) in the **third and fourth semesters** as prescribed by the University.

3. PROGRAMMES OFFERED

B.E. / B.Tech. Programmes under the Faculty of Civil Engineering, Faculty of Mechanical Engineering, Faculty of Electrical Engineering, Faculty of Information and Communication Engineering and Faculty of Technology.

4. STRUCTURE OF PROGRAMMES

4.1 Categorization of Courses

Every B.E. / B. Tech. Programme will have a curriculum with syllabi consisting of theory and practical courses that shall be categorized as follows:

i. **Humanities and Social Sciences (HS)** courses include Technical English, Engineering Ethics and Human Values, Communication skills, Environmental Science and Engineering.

ii. **Basic Sciences (BS)** courses include Mathematics, Physics, Chemistry, Biology, etc.

iii. **Engineering Sciences (ES)** courses include Engineering practices, Engineering Graphics, Basics of Electrical / Electronics / Mechanical / Computer Engineering, Instrumentation etc.

iv. **Professional Core (PC)** courses include the core courses relevant to the chosen specialization/branch.

v. **Professional Elective (PE)** courses include the elective courses relevant to the chosen specialization/ branch.

vi. **Open Elective (OE)** courses include the courses from other branches which a student can choose from the list specified in the curriculum of the students B.E. / B. Tech. / B.Arch. Programmes.

vii. **Employability Enhancement Courses (EEC)** include Project Work and/or Internship, Seminar, Professional Practices, Case Study and Industrial/Practical Training.

viii. **Employability Enhancement Skill Based Courses** include Skill based experiential learning courses will be offered in two categories as purely Laboratory Based Courses and Theory Integrated Laboratory Courses.

Insertion of New Clause 4.1.viii

4.2 Personality and Character Development

All students shall enroll, on admission, in any one of the personality and character development programmes (NCC/NSS/NSO/YRC) and undergo training for about 80 hours and attend a camp of about seven days. The training shall include classes on hygiene and health awareness and also training in first-aid.

National Cadet Corps (NCC) will have about 20 parades.

National Service Scheme (NSS) will have social service activities in and around the College / Institution.

National Sports Organization (NSO) will have sports, Games, Drills and Physical exercises.

Youth Red Cross (YRC) will have activities related to social services in and around College/Institutions.

While the training activities will normally be during weekends, the camp will normally be during vacation period.

4.3 Number of courses per semester

Each semester curriculum shall normally have a blend of lecture courses not exceeding **7** and Laboratory courses and Employability Enhancement Course(s) not exceeding **4.** Each Employability Enhancement Course may have credits assigned as per clause 4.4. However, the total number of courses per semester shall not exceed 10.

4.4 Credit Assignment

Each course is assigned certain number of credits based on the following:

Contact period per week	**CREDITS**
1 Lecture Period	1
2 Tutorial Periods	1
2 Laboratory Periods (also for EEC courses like / Seminar / Project Work / Case study / etc.)	1

The Contact Periods per week for Tutorials and Practical can only be in multiples of 2.

4.5 Industrial Training / Internship

The students may undergo Industrial training for a period as specified in the Curriculum during summer / winter vacation. In this case the training has to be undergone continuously for the entire period.

The students may undergo Internship at Research organization / University (after due approval from the Department Consultative Committee) for the period prescribed in the curriculum during summer / winter vacation, in lieu of Industrial training.

4.6 Industrial Visit

Every student is required to go for at least one Industrial Visit every year starting from the second year of the Programme. The Heads of Departments shall ensure that necessary arrangements are made in this regard.

4.7 Value Added Courses

The Students may optionally undergo Value Added Courses and the credits earned through the Value Added Courses shall be over and above the total credit requirement prescribed in the curriculum for the award of the degree. One / Two credit courses shall be offered by a Department **of an institution with the prior approval from the Head of the Institution.** The details of the syllabus, time table and faculty may be sent to the Centre for Academic Courses and the Controller of Examinations after approval from the **Head of the Institution** concerned atleast one month before the

course is offered. **Students can take a maximum of two one credit courses / one two credit course** during the entire duration of the Programme.

4.8 Online Courses

4.8.1 Students may be permitted to credit only one online course of 3 credits with the approval of **Head of the Institution** and Centre for Academic Courses.

4.8.2 Students may be permitted to credit one online course (which are provided with certificate) subject to a maximum of three credits. The approved list of online courses will be provided by the Centre for Academic courses from time to time. The student needs to obtain certification or credit to become eligible for writing the End Semester Examination to be conducted by Controller of Examinations, Anna University. The details regarding online courses taken up by students should be sent to the Controller of Examinations, Anna University and Centre for Academic Courses one month before the commencement of End Semester Examination.

4.9 The students satisfying the following conditions shall be permitted to carry out their final semester Project work for six months in industry/research organizations.

The student should not have current arrears and shall have CGPA of 7.50 and above.

The student shall undergo the eighth semester courses in the sixth and seventh semesters. The Head of Department, in consultation with the faculty handling the said courses shall forward the proposal recommended by the Head of Institution to the Controller of Examinations through the Director, Centre for Academic courses for approval at least 4 weeks before the commencement of the sixth semester of the programme for approval.

4.10 Medium of Instruction

The medium of instruction is English for all courses, examinations, seminar presentations and project / thesis / dissertation reports except for the programmes offered in Tamil Medium.

4.11 Employability Enhancement Skill Based Courses

Insertion of New Clause 4.11

Skill based experiential learning courses will be offered in two categories as purely Laboratory Based Courses and Theory Integrated Laboratory Courses with the following credits. One such course will be offered in every semester from V to VII.

Category	L	T	P	C
Laboratory Courses	0	0	4	2
	0	0	2	1
Theory integrated Laboratory Course	1	0	2	2

A student may accumulate upto 6 credits through such courses, and such credits will be considered in lieu of the Professional Elective and/or Open Elective courses.

These courses may be offered with the support of the identified firms/companies and with one course coordinator per course and a mentor from the firm.

Evaluation Procedure:

The evaluation of the above mentioned courses are fully internal and shall be jointly done by the course coordinator from the institution and the mentor from the firm.

(a) If the course involves certification from an identified firm/company, then 20% of the total marks will be included in the internal assessment marks, 30% will be included from the marks provided by the firm and 50% shall be evaluated by the respective Course Coordinators of the college by conducting appropriate theory and / or laboratory tests.

(b) If there is no certification from the firm/company, then 50% will be included from the marks provided by the firm and 50% shall be evaluated by the respective Course Coordinators of the college by conducting appropriate theory and / or laboratory tests.

Procedure to drop Professional Elective / Open Elective course(s) and computation of Grade point

A student may accumulate up to 6 credits through such courses, and such credits will be considered in lieu of the Professional Elective and/or Open Elective courses.
In this regard, a student is permitted to drop either 1 or 2 Professional Elective / Open Elective course(s) as per the procedure given below.

Table: Procedure to drop Professional Elective / Open Elective course(s)

No. of courses	Total No. of credits earned	Courses to be printed in the grade sheet	No. of Professional elective/ open elective can be dropped	No. of credits considered for GPA/CGPA calculation
1	2	1	-	-
2	4	2	1	3
3	6	3	2	6

- The credits earned by the student of the successfully completed Skill Based Courses shall be recorded in the grade sheet.
- If a student has not successfully completed the skill based courses during the semesters V, VI and VII, then the same shall not be recorded in the grade sheet.
- If a student earns 2 credits in Semester V and then enrolls for another 2 credits in Semester VI, then he / she is permitted to drop one Professional elective/ open elective course in Semester VI. Further, if the student earns 4 credits upto Semester VI and enrols for another 2 credits in Semester VII, then he/she is permitted to drop an additional professional elective/open elective course in the VII semester.

If the student has enrolled for skill based courses but has not successfully earned 4 or 6 credits and also dropped 1 or 2 PE/OE courses in anticipation of pass, then he/she has to enrol the PE/OE (as the case may be) to meet the total credit requirements to earn the degree.

Method for computation of Grade point of dropped PE / OE courses

The method of Computation of Grade point for the dropped PE/OE courses is given below:

1. If a student has successfully completed two Skill Based Courses, then the computation of Grade point for one PE/OE course dropped in lieu of those two skill based courses is as follows.

   Grade point = (2 credits * higher grade point obtained + 1 credit * lower grade point obtained) / 3 credits.

   For example, for two courses of two credit each, if the grades obtained are,
   Course 1– C grade – 5 points
   Course 2– O grade – 10 points
   Then, the grade point of the dropped course for the calculation of CGPA is obtained as: (1x5 + 2x10)/3 = 8.33.

   One PE/OE course shall be dropped for 3 credits with grade point computed as above.

2. If a student has successfully completed three Skill Based Courses, then the computation of Grade point for dropping two PE/OE in lieu of those three skill based courses is as follows.

For three courses of two credit each

Computation of Grade point of each of the two dropped PE/OE courses for the calculation of CGPA = Average grade point of three skill based courses.

Two PE/OE courses shall be dropped of 3 credits each, with grade point computed as above.

5. DURATION OF THE PROGRAMME

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 (or equivalent) candidates and not more than 12 semesters for Lateral Entry Candidates.

5.1.1 A student is ordinarily expected to complete the B.E. Mechanical Engineering (Sandwich) Programme in 10 semesters (five academic years) but in any case not more than 18 Semesters for HSC (or equivalent) candidates.

5.2 Each semester shall normally consist of 75 working days or 540 periods of 50 minutes each. The Head of the Institution shall ensure that every teacher imparts instruction as per the number of periods specified in the syllabus and that the teacher teaches the full content of the specified syllabus for the course being taught.

5.3 The Head of the Institution may conduct additional classes for improvement, special coaching, conduct of model test etc., over and above the specified periods. But for the purpose of calculation of attendance requirement for writing the end semester examinations (as per clause 6) by the students, following method shall be used.

$$\text{Percentage of Attendance} = \frac{\text{Total no. of periods attended in all the courses per semester}}{\text{(No.of periods / week as prescribed in the curriculum) x 15 taken together for all courses of the semester}} \times 100$$

The University Examination will ordinarily follow immediately after the last working day of the semester commencing from I semester as per the academic schedule prescribed from time to time.

5.4 The total period for completion of the programme reckoned from the commencement of the first semester to which the candidate was admitted shall not exceed the maximum period specified in clause 5.1 irrespective of the period of break of study (vide clause 18) in order that he/she may be eligible for the award of the degree (vide clause 16).

6. COURSE REGISTRATION

6.1 The Institution is responsible for registering the courses that each student is proposing to undergo in the ensuing semester. Each student has to register for all courses to be undergone in the curriculum of a particular semester (with the facility to drop courses to a maximum of 6 credits (vide clause 6.5). The student can also register for courses for which the student has failed in the earlier semesters. In such cases the student shall do **reappearance registration** for those courses for which the attendance requirement is not compulsory. However, the student have the option to take up some other professional elective or open elective that he has failed to pass. **But, the total number of credits that a student is allowed to register per semester cannot exceed 36.** The registration details of the candidates may be approved by the Head of the Institution and forwarded to the Controller of Examinations. This registration is for undergoing the course as well as for writing the End Semester Examinations. No course shall be offered by any department of any institution unless a minimum 10 students register for the course.

The courses that a student registers in a particular semester may include

- **i.** Courses of the current semester.
- **ii.** The core (Theory/Lab /EEC) courses that the student has not cleared in the previous semesters.
- **iii.** Elective courses which the student failed (either the same elective or a different elective instead)

6.2 **Flexibility to Drop courses**

6.2.1 A student has to earn the total number of credits specified in the curriculum of the respective Programme of study in order to be eligible to obtain the degree.

6.2.2 From the III to final semesters, the student has the option of dropping existing courses in a semester during registration. Total number of credits of such courses cannot exceed 6.

6.2.3 The student shall register for the project work in the final semester only.

7. ATTENDANCE REQUIREMENTS FOR COMPLETION OF THE SEMESTER

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

Ideally every student is expected to attend all classes of all the courses and secure 100% attendance. However, in order to give provision for certain unavoidable reasons

such as Medical / participation in sports, the student is expected to attend atleast 75% of the classes.

Therefore, he/she shall **secure not less than 75%** (after rounding off to the nearest integer) of overall attendance as calculated as per clause 5.3.

7.2 However, a candidate who secures overall attendance between 65% and 74% in the current semester due to medical reasons (prolonged hospitalization / accident / specific illness) / Participation in Sports events may be permitted to appear for the current semester examinations subject to the condition that the candidate shall submit the medical certificate / sports participation certificate attested by the Head of the Institution. The same shall be forwarded to the Controller of Examinations for record purposes.

7.3 Candidates who secure less than 65% overall attendance and candidates who do not satisfy the clause 7.1 and 7.2 shall not be permitted to write the University examination at the end of the semester and not permitted to move to the next semester. They are required to repeat the incomplete semester in the next academic year, as per the norms prescribed.

8. CLASS ADVISOR

There shall be a class advisor for each class. The class advisor will be one among the (course-instructors) of the class. He / She will be appointed by the HoD of the department concerned. The class advisor is the ex-officio member and the Convener of the class committee. The responsibilities for the class advisor shall be:

- To act as the channel of communication between the HoD and the students of the respective class.
- To collect and maintain various statistical details of students.
- To help the chairperson of the class committee in planning and conduct of the class committee meetings.
- To monitor the academic performance of the students including attendance and to inform the class committee.
- To attend to the students' welfare activities like awards, medals, scholarships and industrial visits.

9. CLASS COMMITTEE

9.1 Every class shall have a class committee consisting of teachers of the class concerned, student representatives and a chairperson who is not teaching the class. It is like the 'Quality Circle' (more commonly used in industries) with the overall goal

of improving the teaching-learning process. The functions of the class committee include

- Solving problems experienced by students in the class room and in the laboratories.
- **Clarifying the regulations of the degree programme and the details of rules therein particularly (clause 5 and 7) which should be displayed on college Notice-Board.**
- Informing the student representatives, the academic schedule including the dates of assessments and the syllabus coverage for each assessment.
- Informing the student representatives the details of Regulations regarding weightage used for each assessment. In the case of practical courses (laboratory / 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.
- 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.

9.2 The class committee for a class under a particular branch is normally constituted by the Head of the Department. However, if the students of different branches are mixed in a class (like the first semester which is generally common to all branches), the class committee is to be constituted by the Head of the Institution.

9.3 The class committee shall be constituted within the first week of each 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 Class adviser(s) and the Head of the Department to the class committee meeting.

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

9.7 The chairperson is required to prepare the minutes of every meeting, submit the same to Head of the Institution 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 Head of the Institution.

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 weightage of assessments within the framework of the Regulations. Two or three subsequent meetings may be held in a semester at suitable intervals. **The Class Committee Chairman shall put on the Notice Board the cumulative attendance particulars of each student at the end of every such meeting to enable the students to know their attendance details to satisfy the clause 6 of this Regulation.** During these meetings the student members representing the entire class, shall meaningfully interact and express the opinions and suggestions of the other students of the class in order to improve the effectiveness of the teaching-learning process.

10. COURSE COMMITTEE FOR COMMON COURSES

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 Head of the Department / Head of the Institution depending upon whether all the teachers teaching the common course belong to a single department or to several departments. The 'Course committee' shall meet in order to arrive at a common scheme of evaluation for the test and shall ensure a uniform evaluation of the tests. Wherever feasible, the course committee may also prepare a common question paper for the internal assessment test(s).

11. SYSTEM OF EXAMINATION

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

11.2 Each course, both theory and practical (including project work & viva voce Examinations) shall be evaluated for a maximum of 100 marks.

For all theory and practical courses including project work, the continuous internal assessment will carry **20 marks** while the End - Semester University examination will carry **80 marks.**

11.3 Industrial training and seminar shall carry 100 marks and shall be evaluated through internal assessment only.

11.4 The University examination (theory and practical) of 3 hours duration shall ordinarily be conducted between October and December during the odd semesters and between April and June during the even semesters.

11.5 The University examination for project work shall consist of evaluation of the final report submitted by the student or students of the project group (of not exceeding 4 students) by an external examiner and an internal examiner, followed by a viva-voce examination conducted separately for each student by a committee consisting of the external examiner, the supervisor of the project group and an internal examiner.

11.6 For the University examination in both theory and practical courses including project work the internal and external examiners shall be appointed by the Controller of Examinations.

12. PROCEDURE FOR AWARDING MARKS FOR INTERNAL ASSESSMENT

For all theory and practical courses (including project work) the continuous assessment shall be for a maximum of 20 marks. The above continuous assessment shall be awarded as per the procedure given below:

12.1 THEORY COURSES

Three tests each carrying 100 marks shall be conducted during the semester by the Department / College concerned. The total marks obtained in all tests put together out of 300, shall be proportionately reduced for 20 marks and rounded to the nearest integer (This also implies equal weightage to all the three tests).

12.2 LABORATORY COURSES

The maximum marks for Internal Assessment shall be 20 in case of practical courses. Every practical exercise / experiment shall be evaluated based on conduct of experiment / exercise and records maintained. There shall be at least one test. The criteria for arriving at the Internal Assessment marks of 20 is as follows: 75 marks shall be awarded for successful completion of all the prescribed experiments done in the Laboratory and 25 marks for the test. The total mark shall be reduced to 20 and rounded to the nearest integer.

12.3 THEORY COURSES WITH LABORATORY COMPONENT

If there is a theory course with Laboratory component, there shall be three tests: the first two tests (each 100 marks) will be from theory portions and the third test (maximum mark 100) will be for laboratory component. The sum of marks of first two tests shall be reduced to 60 marks and the third test mark shall be reduced to 40 marks. The sum of these 100 marks may then be arrived at for 20 and rounded to the nearest integer.

12.4 PROJECT WORK

Project work may be allotted to a single student or to a group of students not exceeding 4 per group.

The Head of the Institutions shall constitute a review committee for project work for each branch of study. There shall be three reviews during the semester by the review committee.

The student shall make presentation on the progress made by him / her before the committee. The total marks obtained in the three reviews shall be reduced for 20 marks and rounded to the nearest integer (as per the scheme given in 12.4.1).

12.4.1 The project report shall carry a maximum 30 marks. The project report shall be submitted as per the approved guidelines as given by Director, Academic Courses. Same mark shall be awarded to every student within the project group for the project report. The viva-voce examination shall carry 50 marks. Marks are awarded to each student of the project group based on the individual performance in the viva-voce examination.

Review I	Review II	Review III	End semester Examinations				
			Thesis Submission (30)		Viva-Voce (50)		
5	7.5	7.5	Internal	External	Internal	External	Supervisor
			15	15	15	20	15

12.4.2 If a candidate fails to submit the project report on or before the specified deadline, he/she is deemed to have failed in the Project Work and shall re-register for the same in a subsequent semester.

12.5 OTHER EMPLOYABILITY ENHANCEMENT COURSES

(a) The seminar / Case study is to be considered as purely INTERNAL (with 100% internal marks only). Every student is expected to present a minimum of 2 seminars per semester before the evaluation committee and for each seminar, marks can be equally apportioned. The three member committee appointed by Head of the Institution will evaluate the seminar and at the end of the semester the marks can be consolidated and taken as the final mark. The evaluation shall be based on the seminar paper (40%), presentation (40%) and response to the questions asked during presentation (20%).

(b) The Industrial / Practical Training, Summer Project, Internship, shall carry 100 marks and shall be evaluated through internal assessment 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 this report and a Viva-Voce Examination, conducted internally by a three member Departmental Committee constituted by the Head of the Institution. The certificates (issued by the organization) submitted by the students shall be attached to the mark list sent by the Head of the Institution to the Controller of Examinations.

12.6 ASSESSMENT FOR VALUE ADDED COURSE

The one / two credit course shall carry 100 marks and shall be evaluated through **continuous assessments only**. Two Assessments shall be conducted during the semester by the Department concerned. The total marks obtained in the tests shall be reduced to 100 marks and rounded to the nearest integer. A committee consisting of the Head of the Department, staff handling the course and a senior Faculty member nominated by the Head of the Institution shall monitor the evaluation process. The list of students along with the marks and the grades earned may be forwarded to the Controller of Examinations for appropriate action at least one month before the commencement of End Semester Examinations.

12.7 ASSESSMENT FOR ONLINE COURSES

Students may be permitted to credit one online course (which are provided with certificate) subject to a maximum of three credits. The approved list of online courses will be provided by the Centre for Academic courses from time to time. **This online course of 3 credits can be considered instead of one elective course**. The student needs to obtain certification or credit to become eligible for writing the End Semester Examination to be conducted by Anna University. **The course shall be evaluated through the End Semester Examination only conducted by Controller of Examinations, Anna University.**

12.8 Internal marks approved by the Head of the Institution shall be displayed by the respective HODs within 5 days from the last working day.

12.9 Attendance Record

Every teacher is required to maintain an 'ATTENDANCE AND ASSESSMENT RECORD' which consists of attendance marked in each lecture or practical or project work class, the test marks and the record of class work (topic covered), separately for each course. This should be submitted to the Head of the department periodically (at least three times in a semester) for checking the syllabus coverage and the records of test marks and attendance. The Head of the department will put his signature and date after due verification. At the end of the semester, the record should be verified by the

Head of the Institution who will keep this document in safe custody (for five years). The University or any inspection team appointed by the University may verify the records of attendance and assessment of both current and previous semesters.

13. REQUIREMENTS FOR APPEARING FOR UNIVERSITY EXAMINATIONS

A candidate shall normally be permitted to appear for the University Examinations for all the courses registered in the current semester (vide clause 6) if he/she has satisfied the semester completion requirements (subject to Clause 7).

A candidate who has already appeared for any subject in a semester and passed the examination is not entitled to reappear in the same subject for improvement of grades.

14. PASSING REQUIREMENTS

14.1 A candidate who secures not less than 50% of total marks prescribed for the course [Internal Assessment + End semester University Examinations] with a minimum of 45% of the marks prescribed for the end-semester University Examination, shall be declared to have passed the course and acquired the relevant number of credits. This is applicable for both theory and practical courses (including project work).

14.2 If a student fails to secure a pass in a theory course / laboratory course (except electives), the student shall register and appear only for the end semester examination in the subsequent semester. In such case, 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 secure a pass. However, from the third attempt onwards if a candidate fails to obtain pass marks (IA + End Semester Examination) as per clause 14.1, then the candidate shall be declared to have passed the examination if he/she secure a minimum of 50% marks prescribed for the university end semester examinations alone.

Amendment of Clause 14.2

14.3 **Omitted**

14.4 If a student fails to secure a pass in project work, the student shall register for the course again, when offered next.

14.5 The passing requirement for the courses which are assessed only through purely internal assessments (EEC courses except project work), is 50% of the internal assessment (continuous assessment) marks only.

14.6 A student can apply for revaluation of the student's semester examination answer paper in a theory course, within 2 weeks from the declaration of results, on payment of a prescribed fee along with prescribed application to the COE through the Head

of the Institution. The COE will arrange for the revaluation and the results will be intimated to the student concerned through the Head of the Institution. Revaluation is not permitted for laboratory course and project work.

15. AWARD OF LETTER GRADES

15.1 All assessments of a course will be evaluated on absolute marks 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 total marks (out of 100) obtained by the candidate in each subject as detailed below:

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**	**61 – 70**
B (Average)	**6**	**50 - 60**
RA	**0**	
SA (Shortage of Attendance)	**0**	
W	**0**	

A student is deemed to have passed and acquired the corresponding credits in a particular course if he/she obtains any one of the following grades: “O”, “A+”, “A”, “B+”,“B”.

‘SA’ denotes shortage of attendance (as per clause 7.3) and hence prevention from writing the end semester examinations. ‘SA’ will appear only in the result sheet.

“RA” denotes that the student has failed to pass in that course. “**W**” denotes **withdrawal** from the exam for the particular course. The grades RA and W will figure both in Marks Sheet as well as in Result Sheet). In both cases the student has to earn Continuous Assessment marks and appear for the End Semester Examinations.

If the grade W is given to course, the attendance requirement need not be satisfied.
If the grade RA is given to a core **theory course**, the attendance requirement need not be satisfied, but if the grade RA is given to a **Laboratory Course/ Project work / Seminar and any other EEC course,** the attendance requirements (vide clause 7) should be satisfied.

15.2 For the Co-curricular activities such as National Cadet Corps (NCC)/ National Service Scheme (NSS) / NSO / YRC, every student shall put in a minimum of 75% attendance in the training and attend the camp. The training and camp shall be completed during

Amendment of Clause 15.2

the first year of the programme. However, for valid reasons, the Head of the Institution may permit a student to complete this requirement in the second year.

This co-curricular activity is not compulsory for the award of degree.

15.3 The grades O, A+, A, B+, B obtained for the one credit course shall figure in the Mark sheet under the title **'Value Added Courses'**. The Courses for which the grades are RA, SA **will not figure in the mark sheet.**

Grade sheet

After results are declared, Grade Sheets will be issued to each student which will contain the following details:

- The college in which the candidate has studied
- The list of courses enrolled during the semester and the grade scored.
- The Grade Point Average (GPA) for the semester and
- The Cumulative Grade Point Average (CGPA) of all courses enrolled from first semester onwards.

GPA for a semester is the ratio of the sum of the products of the number of credits for courses acquired and the corresponding points to the sum of the number of credits for the courses acquired in the semester.

CGPA will be calculated in a similar manner, considering all the courses registered from first semester. RA grades will be excluded for calculating GPA and CGPA.

$$\text{GPA / CGPA} = \frac{\sum_{i=1}^{n} C_i \, GP_i}{\sum_{i=1}^{n} C_i}$$

where C_i is the number of Credits assigned to the course

GP_i is the point corresponding to the grade obtained for each course

n is number of all courses successfully cleared during the particular semester in the case of GPA and during all the semesters in the case of CGPA.

16 ELIGIBILITY FOR THE AWARD OF THE DEGREE

16.1 A student shall be declared to be eligible for the award of the B.E. / B.Tech. Degree provided the student has

i. Successfully gained the required number of total credits as specified in the curriculum corresponding to the student's programme within the stipulated time.

ii. Successfully completed the course requirements, appeared for the End-Semester examinations and passed all the subjects prescribed in all the 8 semesters / (10 Semesters for B.E. Mechanical Engineering (Sandwich)) within a maximum period of 7 years (9 years in case of B.E. Mechanical Engineering (Sandwich) and 6 years in the case of Lateral Entry) reckoned from the commencement of the first (third in the case of Lateral Entry) semester to which the candidate was admitted.

iii. Successfully passed any additional courses prescribed by the Director, Academic Courses whenever readmitted under regulations R-2017 (vide clause 18.3)

iv. Successfully completed the NCC / NSS / NSO / YRC requirements.

v. No disciplinary action pending against the student.

vi. The award of Degree must have been approved by the Syndicate of the University.

16.2 CLASSIFICATION OF THE DEGREE AWARDED

16.2.1 FIRST CLASS WITH DISTINCTION

A student who satisfies the following conditions shall be declared to have passed the examination in First class with Distinction:

- Should have passed the examination in all the courses of all the eight semesters (10 Semesters in case of Mechanical (Sandwich) and 6 semesters in the case of Lateral Entry) in the student's First Appearance within **five** years (Six years in the case of Mechanical (Sandwich) and Four years in the case of Lateral Entry). Withdrawal from examination (vide Clause 17) will not be considered as an appearance.
- Should have secured a CGPA of not less than 8.50
- One year authorized break of study (if availed of) is included in the five years (Six years in the case of Mechanical (Sandwich) and four years in the case of lateral entry) for award of First class with Distinction.
- Should NOT have been prevented from writing end semester examination due to lack of attendance in any semester.

16.2.2 FIRST CLASS:

A student who satisfies the following conditions shall be declared to have passed the examination in **First class**:

- Should have passed the examination in all the courses of all eight semesters (10 Semesters in case of Mechanical (Sandwich) and 6 semesters in the case of Lateral Entry) **within Six years**. (Seven years in case of Mechanical (Sandwich) and Five years in the case of Lateral Entry).

- One year authorized break of study (if availed of) or prevention from writing the End Semester examination due to lack of attendance (if applicable) is included in the duration of six years (Seven years in case of Mechanical (Sandwich) and five years in the case of lateral entry) for award of First class
- Should have secured a CGPA of not less than **7.00.**

16.2.3 **SECOND CLASS:**

All other students (not covered in clauses 16.2.1 and 16.2.2) who qualify for the award of the degree **(**vide Clause 16.1) shall be declared to have passed the examination in **Second Class**.

16.3 A candidate who is absent in end semester examination in a course / project work after having registered for the same shall be considered to have appeared in that examination for the purpose of classification. (subject to clause 17 and 18).

16.4 Photocopy / **Revaluation**

A candidate can apply for photocopy of his/her semester examination answer paper in a theory course, within 2 weeks from the declaration of results, on payment of a prescribed fee through proper application to the Controller of Examinations through the Head of Institutions. The answer script is to be valued and justified by a faculty member, who handled the subject and recommend for revaluation with breakup of marks for each question. Based on the recommendation, the candidate can register for the revaluation through proper application to the Controller of Examinations. The Controller of Examinations will arrange for the revaluation and the results will be intimated to the candidate concerned through the Head of the Institutions. Revaluation is not permitted for practical courses and for project work.

A candidate can apply for revaluation of answer scripts for not exceeding 5 subjects at a time.

16.5 Review

Candidates not satisfied with Revaluation can apply for Review of his/ her examination answer paper in a theory course, within the prescribed date on payment of a prescribed fee through proper application to Controller of Examination through the Head of the Institution.

Candidates applying for Revaluation only are eligible to apply for Review.

17. PROVISION FOR WITHDRAWAL FROM END-SEMESTER EXAMINATION

17.1 A student may, for valid reasons, (medically unfit / unexpected family situations / sports approved by Chairman, sports board and HOD) be granted permission to

withdraw from appearing for the end semester examination in any course or courses in **ANY ONE** of the semester examinations during the entire duration of the degree programme. The application shall be sent to Director, Student Affairs through the Head of the Institutions with required documents.

17.2 Withdrawal application is valid if the student is otherwise eligible to write the examination (Clause 7) and if it is made within TEN days prior to the commencement of the examination in that course or courses and recommended by the Head of the Institution and approved by the Controller of Examinations.

17.2.1 Notwithstanding the requirement of mandatory 10 days notice, applications for withdrawal for special cases under extraordinary conditions will be considered on the merit of the case.

17.3 In case of withdrawal from a course / courses (Clause 13) the course will figure both in Marks Sheet as well as in Result Sheet. **Withdrawal essentially requires the student to register for the course/courses** The student has to register for the course, fulfill the attendance requirements (vide clause 7), earn continuous assessment marks and attend the end semester examination. However, withdrawal shall not be construed as an appearance for the eligibility of a candidate for First Class with Distinction.

17.4 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 16.2.1.

18. PROVISION FOR AUTHORISED BREAK OF STUDY

18.1 A student is permitted to go on break of study for a maximum period of one year as a single spell.

18.2 Break of Study shall be granted only once for valid reasons 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. If a candidate intends to temporarily discontinue the programme in the middle of the semester for valid reasons, and to rejoin the programme in a subsequent year, permission may be granted based on the merits of the case provided he / she applies to the Director, Student Affairs in advance, but not later than the last date for registering for the end semester examination of the semester in question, through the Head of the Institution stating the reasons therefore and the probable date of rejoining the programme.

18.3 The candidates permitted to rejoin the programme after break of study / prevention due to lack of attendance, shall be governed by the Curriculum and Regulations in force at the time of rejoining. The students rejoining in new Regulations shall apply to the Director, Academic Courses in the prescribed format through Head of the Institution at the beginning of the readmitted semester itself for prescribing additional courses, if any, from any semester of the regulations in-force, so as to bridge the curriculum in-force and the old curriculum.

18.3.1 Total number of credits to be earned by the student shall be more than or equal to the total number of credits prescribed in the curriculum in force. If the credit assigned for L T P of the courses are not same in two Regulations under consideration, then equivalence shall be arrived as per the credit assignment followed in the Regulations in force.

Insertion of New Clause 18.3.1

18.4 The authorized break of study would not be counted towards the duration specified for passing all the courses for the purpose of classification (vide Clause 16.1).

18.5 The total period for completion of the Programme reckoned from, the commencement of the first semester to which the candidate was admitted shall not exceed the maximum period specified in clause 5.1 irrespective of the period of break of study in order that he/she may be eligible for the award of the degree.

18.6 If any student is prevented for want of required attendance, the period of prevention shall not be considered as authorized 'Break of Study' (Clause 18.1)

19 DISCIPLINE

19.1 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 University / College. The Head of Institution shall constitute a disciplinary committee consisting of Head of Institution, Two Heads of Department of which one should be from the faculty of the student, to enquire into acts of indiscipline and notify the University about the disciplinary action recommended for approval. In case of any serious disciplinary action which leads to suspension or dismissal, then a committee shall be constituted including one representative from Anna University, Chennai. In this regard, the member will be nominated by the University on getting information from the Head of the Institution.

19.2 If a student indulges in malpractice in any of the University / internal examination he / she shall be liable for punitive action as prescribed by the University from time to time.

20. REVISION OF REGULATIONS, CURRICULUM AND SYLLABI

The University may from time to time revise, amend or change the Regulations, Curriculum, Syllabus and scheme of examinations through the Academic Council with the approval of Syndicate.

Digitally signed by KUMARESAN VELLAISAMY
Date: 2024.04.01 17:26:23 +05'30'

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KINGS COLLEGE OF ENGINEERING

Recognized under 2(f) & 12(B) of UGC
Approved by AICTE, New Delhi
Affiliated to Anna University, Chennai

CERT ISO 9001

DEPARTMENT OF CIVIL ENGINEERING
COURSE MAPPING - EXPERIENTIAL LEARNING
ANNA UNIVERSITY – 2017 REGULATIONS

S.No	COURSE NAME	COURSE CODE	PROGRAMME CODE	PROGRAMME	PROJECT WORK	FIELD VISIT/ INDUSTRIAL VISIT	INTERNSHIP/ IN-HOUSE TRAINING
1.	Communicative English	HS8151	103	CIVIL ENGINEERING	✓		
2.	Engineering Mathematics – I	MA8151	103	CIVIL ENGINEERING			✓
3.	Engineering Physics	PH8151	103	CIVIL ENGINEERING		✓	
4.	Engineering Chemistry	CY8151	103	CIVIL ENGINEERING			✓
5.	Problem Solving and Python Programming	GE8151	103	CIVIL ENGINEERING		✓	
6.	Engineering Graphics	GE8152	103	CIVIL ENGINEERING			✓
7.	Problem Solving and Python Programming Laboratory	GE8161	103	CIVIL ENGINEERING	✓		

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8.	Physics and Chemistry Laboratory	BS8161	103	CIVIL ENGINEERING		✓	
9.	Technical English	HS8251	103	CIVIL ENGINEERING	✓		
10.	Engineering Mathematics – II	MA8251	103	CIVIL ENGINEERING			✓
11.	Physics For Civil Engineering	PH8201	103	CIVIL ENGINEERING			✓
12.	Basic Electrical and Electronics Engineering	BE8251	103	CIVIL ENGINEERING			✓
13.	Environmental Science and Engineering	GE8291	103	CIVIL ENGINEERING		✓	
14.	Engineering Mechanics	GE8292	103	CIVIL ENGINEERING			✓
15.	Engineering Practices Laboratory	GE8261	103	CIVIL ENGINEERING		✓	
16.	Computer Aided Building Drawing	CE8211	103	CIVIL ENGINEERING	✓		✓
17.	Transforms and Partial Differential Equations	MA8353	103	CIVIL ENGINEERING			✓

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18.	Strength of Materials I	CE8301	103	CIVIL ENGINEERING	✓		
19.	Fluid Mechanics	CE8302	103	CIVIL ENGINEERING	✓		
20.	Surveying	CE8351	103	CIVIL ENGINEERING			✓
21.	Construction Materials	CE8391	103	CIVIL ENGINEERING	✓	✓	
22.	Engineering Geology	CE8392	103	CIVIL ENGINEERING		✓	
23.	Construction Materials Laboratory	CE8311	103	CIVIL ENGINEERING	✓		
24.	Surveying Laboratory	CE8361	103	CIVIL ENGINEERING			✓
25.	Interpersonal Skills / Listening and Speaking	HS8381	103	CIVIL ENGINEERING	✓		
26.	Numerical Methods	MA8491	103	CIVIL ENGINEERING			✓
27.	Construction Techniques and Practices	CE8401	103	CIVIL ENGINEERING		✓	

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28.	Strength of Materials II	CE8402	103	CIVIL ENGINEERING	✓		
29.	Applied Hydraulic Engineering	CE8403	103	CIVIL ENGINEERING			✓
30.	Concrete Technology	CE8404	103	CIVIL ENGINEERING	✓		
31.	Soil Mechanics	CE8491	103	CIVIL ENGINEERING	✓		
32.	Strength of Materials Laboratory	CE8481	103	CIVIL ENGINEERING	✓		
33.	Hydraulic Engineering Laboratory	CE8461	103	CIVIL ENGINEERING		✓	
34.	Advanced Reading and Writing	HS8461	103	CIVIL ENGINEERING	✓		
35.	Design of Reinforced Cement Concrete Elements	CE8501	103	CIVIL ENGINEERING	✓		
36.	Structural Analysis I	CE8502	103	CIVIL ENGINEERING	✓		
37.	Water Supply Engineering	EN8491	103	CIVIL ENGINEERING	✓		

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38.	Foundation Engineering	CE8591	103	CIVIL ENGINEERING	✓	✓	
39.	Geographic Information System	GI8014	103	CIVIL ENGINEERING			✓
40.	Environment and Agriculture	OAI551	103	CIVIL ENGINEERING		✓	
41.	Soil Mechanics Laboratory	CE8511	103	CIVIL ENGINEERING	✓		
42.	Water and Waste Water Analysis Laboratory	CE8512	103	CIVIL ENGINEERING	✓		
43.	Survey Camp (2 weeks –During IV Semester)	CE8513	103	CIVIL ENGINEERING			✓
44.	Design of Steel Structural Elements	CE8601	103	CIVIL ENGINEERING	✓		
45.	Structural Analysis II	CE8602	103	CIVIL ENGINEERING	✓		
46.	Irrigation Engineering	CE8603	103	CIVIL ENGINEERING	✓		
47.	Highway Engineering	CE8604	103	CIVIL ENGINEERING	✓		

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48.	Wastewater Engineering	EN8592	103	CIVIL ENGINEERING	✓		
49.	Air Pollution and Control Engineering	CE8005	103	CIVIL ENGINEERING		✓	
50.	Highway Engineering Laboratory	CE8611	103	CIVIL ENGINEERING	✓		
51.	Irrigation and Environmental Engineering Drawing	CE8612	103	CIVIL ENGINEERING	✓	✓	
52.	Professional Communication	HS8581	103	CIVIL ENGINEERING	✓		
53.	Estimation, Costing and Valuation Engineering	CE8701	103	CIVIL ENGINEERING	✓		
54.	Railways, Airports, Docks and Harbour Engineering	CE8702	103	CIVIL ENGINEERING		✓	
55.	Structural Design and Drawing	CE8703	103	CIVIL ENGINEERING	✓	✓	
56.	Design of Prestressed Concrete Structures	CE8011	103	CIVIL ENGINEERING	✓		✓
57.	Green Building Design	OEN751	103	CIVIL ENGINEERING			✓

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58.	Creative and Innovative Project (Activity Based - Subject Related)	CE8711	103	CIVIL ENGINEERING	✓		
59.	Industrial Training (4 weeks During VI Semester – Summer)	CE8712	103	CIVIL ENGINEERING			✓
60.	Professional Ethics in Engineering	GE8076	103	CIVIL ENGINEERING	✓		
61.	Prefabricated Structures	GE8022	103	CIVIL ENGINEERING		✓	
62.	Project Work	CE8811	103	CIVIL ENGINEERING	✓		

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DEPARTMENT OF CIVIL ENGINEERING
COURSE MAPPING - EXPERIENTIAL LEARNING
ANNA UNIVERSITY – 2021 REGULATIONS

S.No	COURSE NAME	COURSE CODE	PROGRAMME CODE	PROGRAMME	PROJECT WORK	FIELD VISIT/ INDUSTRIAL VISIT	INTERNSHIP/ IN-HOUSE TRAINING
1.	Professional English - I	HS3152	103	CIVIL ENGINEERING	✓		
2.	Matrices and Calculus	MA3151	103	CIVIL ENGINEERING			✓
3.	Engineering Physics	PH3151	103	CIVIL ENGINEERING	✓		
4.	Engineering Chemistry	. CY3151	103	CIVIL ENGINEERING	✓		
5.	Problem Solving and Python Programming	GE3151	103	CIVIL ENGINEERING			✓
6.	Problem Solving and Python Programming Laboratory	GE3171	103	CIVIL ENGINEERING			✓

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7.	Physics and Chemistry Laboratory	BS3171	103	CIVIL ENGINEERING	✓		
8.	English Laboratory	GE3172	103	CIVIL ENGINEERING	✓		
9.	Professional English - II	HS3252	103	CIVIL ENGINEERING	✓		
10.	Statistics and Numerical Methods	MA3251	103	CIVIL ENGINEERING			✓
11.	Physics for Civil Engineering	PH3201	103	CIVIL ENGINEERING	✓		
12.	Basic Electrical, Electronics and Instrumentation Engineering	BE3252	103	CIVIL ENGINEERING	✓		
13.	Engineering Graphics	GE3251	103	CIVIL ENGINEERING	✓		
14.	Engineering Practices Laboratory	GE3271	103	CIVIL ENGINEERING	✓		
15.	Basic Electrical, Electronics and Instrumentation Engineering Laboratory	BE3272	103	CIVIL ENGINEERING	✓		

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16.	Communication Laboratory / Foreign Language	. GE3272	103	CIVIL ENGINEERING	✓		
17.	Transforms and Partial Differential Equations	MA3351	103	CIVIL ENGINEERING			✓
18.	Engineering Mechanics	ME3351	103	CIVIL ENGINEERING	✓		
19.	Fluid Mechanics	CE3301	103	CIVIL ENGINEERING	✓		
20.	Construction Materials and Technology	CE3302	103	CIVIL ENGINEERING		✓	
21.	Water Supply and Wastewater Engineering	CE3303	103	CIVIL ENGINEERING		✓	
22.	Surveying and Levelling	CE3351	103	CIVIL ENGINEERING	✓	✓	
23.	Surveying and Levelling Laboratory	CE3361	103	CIVIL ENGINEERING		✓	
24.	Water and Wastewater Analysis Laboratory	CE3311	103	CIVIL ENGINEERING	✓		
25.	Professional Development	GE3361	103	CIVIL ENGINEERING	✓		

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26.	Applied Hydraulics Engineering	CE3401	103	CIVIL ENGINEERING		✓	
27.	Strength of Materials	CE3402	103	CIVIL ENGINEERING	✓		
28.	Concrete Technology	CE3403	103	CIVIL ENGINEERING		✓	
29.	Soil Mechanics	CE3404	103	CIVIL ENGINEERING	✓		
30.	Highway and Railway Engineering	CE3405	103	CIVIL ENGINEERING			✓
31.	Environmental sciences and sustainability	GE3451	103	CIVIL ENGINEERING		✓	
32.	Hydraulics Engineering Laboratory	CE3411	103	CIVIL ENGINEERING	✓		
33.	Material Testing Laboratory	CE3412	103	CIVIL ENGINEERING	✓		
34.	Soil Mechanics Laboratory	CE3413	103	CIVIL ENGINEERING	✓		

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HoD/CIVIL

HOD
Department of Civil Engineering
Kings College of Engineering,
Punalkulam, Thanjavur - 613 303

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EXPERIENTIAL LEARNING

Sl.No	Programme code	Programme Name	Course code	Course Name	Internship/ In-house Training	Field Work	Project Work
1	104	BE CSE	HS8151	Communicative English			✓
2	104	BE CSE	MA8151	Engineering Mathematics - I			✓
3	104	BE CSE	PH8151	Engineering Physics		✓	
4	104	BE CSE	CY8151	Engineering Chemistry		✓	
5	104	BE CSE	GE8151	Problem Solving and Python Programming	✓		
6	104	BE CSE	GE8152	Engineering Graphics			✓
7	104	BE CSE	GE8161	Problem Solving and Python Programming Laboratory	✓		
8	104	BE CSE	BS8161	Physics and Chemistry Laboratory		✓	
9	104	BE CSE	HS8251	Technical English			✓
10	104	BE CSE	MA8251	Engineering Mathematics - II			✓
11	104	BE CSE	PH8252	Physics for Information Science			✓
12	104	BE CSE	BE8255	Basic Electrical Electronics and Measurement Engineering			✓
13	104	BE CSE	GE8291	Environmental Science and Engineering		✓	
14	104	BE CSE	CS8251	Programming in C			✓
15	104	BE CSE	GE8261	Engineering Practices Laboratory			✓
16	104	BE CSE	CS8261	C Programming Laboratory			✓
17	104	BE CSE	MA8351	Discrete Mathematics			✓
18	104	BE CSE	CS8351	Digital Principles and System Design			✓
19	104	BE CSE	CS8391	Data Structures			✓
20	104	BE CSE	CS8392	Object Oriented Programming	✓		

HoD/CSE 15/11/21

H.O.D of Computer Science & Engineering
KINGS COLLEGE OF ENGINEERING
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Pudukkottai (Dt) 613 303.

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Sl.No	Programme code	Programme Name	Course code	Course Name	Internship/ In-house Training	Field Work	Project Work
21	104	BE CSE	EC8395	Communication Engineering		✓	
22	104	BE CSE	CS8381	Data Structures Laboratory			✓
23	104	BE CSE	CS8382	Digital Systems Laboratory			✓
24	104	BE CSE	CS8383	Object Oriented Programming Laboratory			✓
25	104	BE CSE	HS8381	Interpersonal Skills/ Listening & Speaking			✓
26	104	BE CSE	MA8402	Probability & Queuing Theory			✓
27	104	BE CSE	CS8491	Computer Architecture	✓		
28	104	BE CSE	CS8492	Database Management Systems			✓
29	104	BE CSE	CS8451	Design & Analysis of Algorithm			✓
30	104	BE CSE	CS8493	Operating Systems		✓	
31	104	BE CSE	CS8494	Software Engineering			✓
32	104	BE CSE	CS8481	Database Management Systems Lab			✓
33	104	BE CSE	CS8461	Operating Systems Laboratory		✓	
34	104	BE CSE	HS8461	Advanced Reading & Writing			✓
35	104	BE CSE	MA8551	Algebra and Number Theory			✓
36	104	BE CSE	CS8591	Computer Networks	✓		
37	104	BE CSE	EC8691	Microprocessor & Microcontroller		✓	
38	104	BE CSE	CS8501	Theory of Computation			✓
39	104	BE CSE	CS8592	Object Oriented Analysis & Design			✓
40	104	BE CSE	OMF551	Product Design and Development		✓	
41	104	BE CSE	EC8681	Microprocessor & Microcontroller Lab		✓	
42	104	BE CSE	CS8582	Object Oriented Analysis & Design Lab			✓
43	104	BE CSE	CS8581	Networks Lab			✓

HoD/CSE 5/11/21

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Sl.No	Programme code	Programme Name	Course code	Course Name	Internship/ In-house Training	Field Work	Project Work
44	104	BE CSE	CS8651	Internet Programming			✓
45	104	BE CSE	CS8691	Artificial Intelligence	✓		
46	104	BE CSE	CS8601	Mobile Computing		✓	
47	104	BE CSE	CS8602	Compiler Design			✓
48	104	BE CSE	CS8603	Distributed Systems	✓		
49	104	BE CSE	IT8076	Software Testing			✓
50	104	BE CSE	CS8661	Internet Programming Laboratory			✓
51	104	BE CSE	CS8662	Mobile Application Development Laboratory			✓
52	104	BE CSE	CS8611	Mini Project			✓
53	104	BE CSE	HS8581	Professional Communication			✓
54	104	BE CSE	MG8591	Principles of Management		✓	
55	104	BE CSE	CS8792	Cryptography and Network Security	✓		
56	104	BE CSE	CS8791	Cloud Computing	✓		
57	104	BE CSE	OME752	Supply Chain Management		✓	
58	104	BE CSE	IT8075	Software Project Management			✓
59	104	BE CSE	CS8088	Wireless Adhoc & Sensor Network	✓		
60	104	BE CSE	CS8711	Cloud Computing Laboratory	✓		
61	104	BE CSE	IT8761	Security Laboratory	✓		
62	104	BE CSE	GE8076	Professional Ethics in Engineering		✓	
63	104	BE CSE	CS8078	Green Computing		✓	
64	104	BE CSE	CS8811	Project Work			✓

HoD/CSE 15/11/24

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Sl.No	Programme code	Programme Name	Course code	Course Name	Internship/ Inhouse Training	Field Work	Project Work
1	405	M.E – CSE	MA5160	Applied Probability and Statistics			✓
2	405	M.E – CSE	CP5151	Advanced Data Structures and Algorithms			✓
3	405	M.E – CSE	CP5152	Advanced Computer Architecture		✓	
4	405	M.E – CSE	CP5153	Operating System Internals		✓	
5	405	M.E – CSE	CP5154	Advanced Software Engineering			✓
6	405	M.E – CSE	CP5191	Machine Learning Techniques	✓		
7	405	M.E – CSE	CP5161	Data Structures Laboratory			✓
8	405	M.E – CSE	CP5201	Network Design and Technologies	✓		
9	405	M.E – CSE	CP5291	Security Practices			✓
10	405	M.E – CSE	CP5292	Internet of Things	✓		
11	405	M.E – CSE	CP5293	Big Data Analytics	✓		
12	405	M.E – CSE	CP5092	Cloud Computing Technologies	✓		
13	405	M.E – CSE	CP5094	Information Retrieval Techniques			✓
14	405	M.E – CSE	CP5261	Data Analytics Laboratory			✓
15	405	M.E – CSE	CP5281	Term Paper Writing and Seminar			✓
16	405	M.E – CSE	CP5005	Software Quality Assurance & Testing			✓
17	405	M.E – CSE	CP5074	Social Network Analysis			✓
18	405	M.E – CSE	CP5010	Reconfigurable Computing	✓		
19	405	M.E – CSE	CP5311	Project Work Phase – I			✓
20	405	M.E – CSE	CP5411	Project Work Phase – II			✓

HoD/CSE 15/11/21

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DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

COURSE MAPPING - EXPERIENTIAL LEARNING

ANNA UNIVERSITY – 2021 REGULATION

S.No	COURSE NAME	COURSE CODE	PROGRAMME CODE	PROGRAMME	PROJECT WORK	FIELD WORK/ INDUSTRIAL VISIT	INTERNSHIP/ IN-HOUSE TRAINING
1.	Professional English - I	HS3152	104	Computer Science and Engineering	✓		
2.	Matrices and Calculus	MA3151	104	Computer Science and Engineering	✓		
3.	Engineering Physics	PH3151	104	Computer Science and Engineering		✓	
4.	Engineering Chemistry	CY3151	104	Computer Science and Engineering		✓	
5.	Problem Solving and Python Programming	GE3151	104	Computer Science and Engineering			✓
6.	Heritage of Tamils	GE3152	104	Computer Science and Engineering	✓		
7.	Problem Solving and Python Programming Laboratory	GE3171	104	Computer Science and Engineering			✓
8.	Physics and Chemistry Laboratory	BS3171	104	Computer Science and Engineering		✓	

S.No	COURSE NAME	COURSE CODE	PROGRAMME CODE	PROGRAMME	PROJECT WORK	FIELD VISIT/ INDUSTRIAL VISIT	INTERNSHIP/ IN-HOUSE TRAINING
9.	English Laboratory	GE3172	104	Computer Science and Engineering	✓		
10.	Professional English - II	HS3252	104	Computer Science and Engineering	✓		
11.	Statistics and Numerical Methods	MA3251	104	Computer Science and Engineering	✓		
12.	Physics for Information Science	PH3256	104	Computer Science and Engineering		✓	
13.	Basic Electrical and Electronics Engineering	BE3251	104	Computer Science and Engineering		✓	
14.	Engineering Graphics	GE3251	104	Computer Science and Engineering	✓		
15.	Programming in C	CS3251	104	Computer Science and Engineering			✓
16.	Tamils and Technology	GE3252	104	Computer Science and Engineering	✓		
17.	Engineering Practices Lab	GE3271	104	Computer Science and Engineering	✓		
18.	Programming in C Laboratory	CS3271	104	Computer Science and Engineering			✓
19.	Communication Laboratory / Foreign Language	GE3272	104	Computer Science and Engineering	✓		

S.No	COURSE NAME	COURSE CODE	PROGRAMME CODE	PROGRAMME	PROJECT WORK	FIELD WORK/ INDUSTRIAL VISIT	INTERNSHIP/ IN-HOUSE TRAINING
20.	Discrete Mathematics	MA3354	104	Computer Science and Engineering	✓		
21.	Digital Principles and Computer Organization	CS3351	104	Computer Science and Engineering	✓		
22.	Foundations of Data Science	CS3352	104	Computer Science and Engineering			✓
23.	Data Structures	CS3301	104	Computer Science and Engineering			✓
24.	Object Oriented Programming	CS3391	104	Computer Science and Engineering			✓
25.	Data Structures Laboratory	CS3311	104	Computer Science and Engineering			✓
26.	Object Oriented Programming Laboratory	CS3381	104	Computer Science and Engineering			✓
27.	Data Science Laboratory	CS3361	104	Computer Science and Engineering			✓
28.	Professional Development	GE3361	104	Computer Science and Engineering	✓		
29.	Theory of Computation	CS3452	104	Computer Science and Engineering	✓		
30.	Artificial Intelligence and Machine Learning	CS3491	104	Computer Science and Engineering	✓		

S.No	COURSE NAME	COURSE CODE	PROGRAMME CODE	PROGRAMME	PROJECT WORK	FIELD WORK/ INDUSTRIAL VISIT	INTERNSHIP/ IN-HOUSE TRAINING
31.	Database Management Systems	CS3492	104	Computer Science and Engineering	✓		
32.	Algorithms	CS3401	104	Computer Science and Engineering	✓		
33.	Introduction to Operating Systems	CS3451	104	Computer Science and Engineering		✓	
34.	Environmental Sciences and Sustainability	GE3451	104	Computer Science and Engineering		✓	
35.	Operating Systems Laboratory	CS3461	104	Computer Science and Engineering		✓	
36.	Database Management Systems Laboratory	CS3481	104	Computer Science and Engineering	✓		

13/7/22

HoD/CSE

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DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

ANNA UNIVERSITY -2017 REGULATION
COURSE MAPPING - EXPERIENTIAL LEARNING

S. No	Course Code	Course Name	Program Code	Program Name	Project work	Field Visit/ Industrial Visit	Internship/ In House Training
1	HS8151	Communicative English	106	BE-ECE	✓		
2	MA8151	Engineering Mathematics - I	106	BE-ECE	✓		
3	PH8151	Engineering Physics	106	BE-ECE	✓		
4	CY8151	Engineering Chemistry	106	BE-ECE		✓	
5	GE8151	Problem Solving and Python Programming	106	BE-ECE	✓		
6	GE8152	Engineering Graphics	106	BE-ECE	✓		
7	GE8161	Problem Solving and Python Programming Laboratory	106	BE-ECE	✓		
8	BS8161	Physics and Chemistry Laboratory	106	BE-ECE		✓	
9	HS8251	Technical English	106	BE-ECE	✓		
10	MA8251	Engineering Mathematics - II	106	BE-ECE	✓		
11	PH8253	Physics for Electronics Engineering	106	BE-ECE			✓
12	BE8254	Basic Electrical and Instrumentation Engineering	106	BE-ECE		✓	
13	EC8251	Circuit Analysis	106	BE-ECE	✓		
14	EC8252	Electronic Devices	106	BE-ECE		✓	
15	EC8261	Circuits and Devices Laboratory	106	BE-ECE		✓	
16	GE8261	Engineering Practices Laboratory	106	BE-ECE		✓	
17	MA8352	Linear Algebra and Partial Differential Equations	106	BE-ECE	✓		
18	EC8393	Fundamentals of Data Structures In C	106	BE-ECE		✓	
19	EC8351	Electronic Circuits- I	106	BE-ECE	✓		

HOD/ECE 29/5/23

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ELECTRONICS AND COMMUNICATION ENGINEERING
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DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING
ANNA UNIVERSITY -2017 REGULATION
COURSE MAPPING - EXPERIENTIAL LEARNING

Sl.No	Course Code	Course Name	Program Code	Program Name	Project work	Field Visit/ Industrial Visit	Internship /In House Training
20	EC8352	Signals and Systems	106	BE-ECE	✓		
21	EC8392	Digital Electronics	106	BE-ECE	✓		
22	EC8391	Control Systems Engineering	106	BE-ECE	✓		
23	EC8381	Fundamentals of Data Structures in C Laboratory	106	BE-ECE		✓	
24	EC8361 A	Analog and Digital Circuits Laboratory	106	BE-ECE			✓
25	HS8381	Interpersonal Skills/Listening &Speaking	106	BE-ECE			✓
26	MA8451	Probability and Random Processes	106	BE-ECE	✓		
27	EC8452	Electronic Circuits II	106	BE-ECE	✓		
28	EC8491	Communication Theory	106	BE-ECE	✓		
29	EC8451	Electromagnetic Fields	106	BE-ECE	✓		
30	EC8453	Linear Integrated Circuits	106	BE-ECE	✓		
31	GE8291	Environmental Science and Engineering	106	BE-ECE			✓
32	EC8461	Circuits Design and Simulation Laboratory	106	BE-ECE			✓
33	EC8462	Linear Integrated Circuits Laboratory	106	BE-ECE			✓
34	EC8501	Digital Communication	106	BE-ECE	✓		
35	EC8553	Discrete-Time Signal Processing	106	BE-ECE	✓		
36	EC8552	Computer Architecture and Organization	106	BE-ECE	✓		
37	EC8551	Communication Networks	106	BE-ECE	✓		
38	EC8073	Medical Electronics	106	BE-ECE		✓	
39	ORO551	Renewable Energy Sources	106	BE-ECE			✓
40	EC8562	Digital Signal Processing Laboratory	106	BE-ECE			✓
41	EC8561	Communication Systems Laboratory	106	BE-ECE			✓
42	EC8563	Communication Networks Laboratory	106	BE-ECE			✓

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COURSE MAPPING - EXPERIENTIAL LEARNING

Sl.No	Course Code	Course Name	Program Code	Program Name	Project work	Field Visit/ Industrial Visit	Internship /In House Training
43	EC8691	Microprocessors and Microcontrollers	106	BE-ECE	✓		
44	EC8095	VLSI Design	106	BE-ECE	✓		
45	EC8652	Wireless Communication	106	BE-ECE	✓		
46	MG8591	Principles of Management	106	BE-ECE			✓
47	EC8651	Transmission Lines and RF Systems	106	BE-ECE		✓	
48	EC8002	Multimedia Compression and Communication	106	BE-ECE	✓		
49	EC8681	Microprocessors and Microcontrollers Laboratory	106	BE-ECE			✓
50	EC8661	VLSI Design Laboratory	106	BE-ECE	✓		
51	EC8611	Technical Seminar	106	BE-ECE		✓	
52	HS8581	Professional Communication	106	BE-ECE		✓	
53	EC8701	Antennas and Microwave Engineering	106	BE-ECE	✓		
54	EC8751	Optical Communication	106	BE-ECE	✓		
55	EC8791	Embedded and Real Time Systems	106	BE-ECE	✓		
56	EC8702	Ad hoc and Wireless Sensor Networks	106	BE-ECE	✓		
57	EC8092	Advanced Wireless Communication	106	BE-ECE	✓		
58	OIC751	Transducer Engineering	106	BE-ECE	✓		
59	EC8711	Embedded Laboratory	106	BE-ECE	✓		
60	EC8761	Advanced Communication Laboratory	106	BE-ECE			✓
61	EC8072	Electro Magnetic Interference and Compatibility	106	BE-ECE			✓
62	EC8094	Satellite Communication	106	BE-ECE			✓
63	EC8811	Project Work	106	BE-ECE	✓		

29/5/23

HOD/ECE

H.O.D.
ELECTRONICS AND COMMUNICATION ENGINEERING
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DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

ANNA UNIVERSITY - 2021 REGULATION
COURSE MAPPING - EXPERIENTIAL LEARNING

Sl.No	Course Code	Course Name	Program Code	Program Name	Project work	Field Visit/ Industrial Visit	Internship/ In House Training
1	HS3152	Professional English - I	106	BE-ECE	✓		
2	MA3151	Matrices and Calculus	106	BE-ECE	✓		
3	PH3151	Engineering Physics	106	BE-ECE	✓		
4	CY3151	Engineering Chemistry	106	BE-ECE		✓	
5	GE3151	Problem Solving and Python Programming	106	BE-ECE	✓		
6	GE3152	Heritage of Tamils	106	BE-ECE		✓	
7	GE3171	Problem Solving and Python Programming Laboratory	106	BE-ECE	✓		
8	BS3171	Physics and Chemistry Laboratory	106	BE-ECE		✓	
9	GE3172	English Laboratory	106	BE-ECE	✓		
10	HS3252	Professional English - II	106	BE-ECE	✓		
11	MA3251	Statistics and Numerical Methods	106	BE-ECE	✓		
12	PH3254	Physics for Electronics Engineering	106	BE-ECE			✓
13	BE3254	Electrical and Instrumentation Engineering	106	BE-ECE		✓	
14	GE3251	Engineering Graphics	106	BE-ECE		✓	
15	EC3251	Circuit Analysis	106	BE-ECE	✓		
16	GE3252	Tamils and Technology	106	BE-ECE		✓	
17	GE3271	Engineering Practices Laboratory	106	BE-ECE		✓	
18	EC3271	Circuits Analysis Laboratory	106	BE-ECE		✓	
19	GE3272	Communication Laboratory / Foreign Language	106	BE-ECE		✓	

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COURSE MAPPING - EXPERIENTIAL LEARNING

Sl.No	Course Code	Course Name	Program Code	Program Name	Project work	Field Visit/ Industrial Visit	Internship/ In House Training
20	MA3353	Random Processes and Linear Algebra	106	BE-ECE	✓		
21	CS3353	C Programming and Data Structures	106	BE-ECE		✓	
22	EC3354	Signals and Systems	106	BE-ECE	✓		
23	EC3353	Electronic Devices and Circuits.	106	BE-ECE	✓		
24	EC3351	Control Systems	106	BE-ECE	✓		
25	EC3352	Digital Systems Design	106	BE-ECE	✓		
26	EC3361	Electronic Devices and Circuits Laboratory	106	BE-ECE	✓		
27	CS3362	C Programming and Data Structures Laboratory	106	BE-ECE		✓	
28	GE3361	Professional Development	106	BE-ECE			✓
29	EC3452	Electromagnetic Fields	106	BE-ECE	✓		
30	EC3401	Networks and Security	106	BE-ECE	✓		
31	EC3451	Linear Integrated Circuits	106	BE-ECE	✓		
32	EC3492	Digital Signal Processing	106	BE-ECE	✓		
33	EC3491	Communication Systems	106	BE-ECE			✓
34	GE3451	Environmental Science and Sustainability	106	BE-ECE			✓
35	EC3461	Communication Systems Laboratory	106	BE-ECE			✓
36	EC3462	Linear Integrated Circuits Laboratory	106	BE-ECE			✓

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COURSE MAPPING - EXPERIENTIAL LEARNING

Sl.No	Course Code	Course Name	Program Code	Program Name	Project work	Field Visit/ Industrial Visit	Internship/In House Training
1	MA5152	Applied Mathematics for Electronics Engineers	419	ME-VLSI	✓		
2	AP5151	Advanced Digital System Design	419	ME-VLSI	✓		
3	VL5101	CMOS Digital VLSI Design	419	ME-VLSI	✓		
4	VL5191	DSP Integrated Circuits	419	ME-VLSI			✓
5	VL5102	CAD for VLSI Circuits	419	ME-VLSI			✓
6	VL5103	Analog IC Design	419	ME-VLSI		✓	
7	VL5111	VLSI Design Laboratory-I	419	ME-VLSI		✓	
8	VL5201	Testing of VLSI Circuits	419	ME-VLSI	✓		
9	VL5291	VLSI Signal Processing	419	ME-VLSI	✓		
10	VL5202	Low Power VLSI Design	419	ME-VLSI	✓		
11	VL5002	RF IC Design	419	ME-VLSI	✓		
12	VL5005	Networks on Chip	419	ME-VLSI	✓		
13	AP5191	Embedded System Design	419	ME-VLSI	✓		
14	VL5211	VLSI Design Laboratory II	419	ME-VLSI	✓		
15	CP5281	Term Paper Writing and Seminar	419	ME-VLSI			✓
16	VL5301	Analog to Digital Interfaces	419	ME-VLSI			✓
17	AP5292	Digital Image Processing	419	ME-VLSI	✓		
18	VL5012	Selected Topics in IC design	419	ME-VLSI	✓		
19	VL5311	Project Work Phase-I	419	ME-VLSI	✓		
20	VL5411	Project Work Phase-II	419	ME-VLSI	✓		

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KINGS COLLEGE OF ENGINEERING

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Approved by AICTE, New Delhi
Affiliated to Anna University, Chennai

CERT ISO 9001

ANNA UNIVERSITY -2017 REGULATIONS
DEPARTMENT OF EEE
COURSE MAPPING-EXPERIENTIAL LEARNING

S.No	COURSE NAME	COURSE CODE	PROGRAMME CODE	PROGRAMME	PROJECT WORK	FIELD VISIT/ INDUSTRIAL VISIT	INTERNSHIP/ INHOUSE TRAINING
1.	COMMUNICATIVE ENGLISH	HS8151	105	ELECTRICAL AND ELECTRONICS ENGINEERING	✓		
2.	ENGINEERING MATHEMATICS-I	MA8151	105	ELECTRICAL AND ELECTRONICS ENGINEERING	✓		
3.	ENGINEERING PHYSICS	PH8151	105	ELECTRICAL AND ELECTRONICS ENGINEERING			✓
4.	ENGINEERING CHEMISTRY	CY8151	105	ELECTRICAL AND ELECTRONICS ENGINEERING	✓		
5.	PROBLEM SOLVING AND PYTHON PROGRAMMING	GE8151	105	ELECTRICAL AND ELECTRONICS ENGINEERING		✓	
6.	ENGINEERING GRAPHICS	GE8152	105	ELECTRICAL AND ELECTRONICS ENGINEERING			✓
7.	PROBLEM SOLVING AND PYTHON PROGRAMMING LABORATORY	GE8161	105	ELECTRICAL AND ELECTRONICS ENGINEERING	✓	✓	
8.	PHYSICS AND CHEMISTRY LABORATORY	BS8161	105	ELECTRICAL AND ELECTRONICS ENGINEERING	✓		

15/11/21

K.A.ALBERT MARTIN RUBAN, M.E., Ph.D.
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9.	TECHNICAL ENGLISH	HS8251	105	ELECTRICAL AND ELECTRONICS ENGINEERING	✓		✓
10.	ENGINEERING MATHEMATICS-II	MA8251	105	ELECTRICAL AND ELECTRONICS ENGINEERING			✓
11.	PHYSICS FOR ELECTRONICS ENGINEERING	PH8253	105	ELECTRICAL AND ELECTRONICS ENGINEERING	✓		✓
12.	BASIC CIVIL AND MECHANICAL ENGINEERING	BE8252	105	ELECTRICAL AND ELECTRONICS ENGINEERING	✓		✓
13.	CIRCUIT THEORY	EE8251	105	ELECTRICAL AND ELECTRONICS ENGINEERING	✓		✓
14.	ENVIRONMENTAL SCIENCE AND ENGINEERING	GE8291	105	ELECTRICAL AND ELECTRONICS ENGINEERING	✓	✓	
15.	ENGINEERING PRACTICES LABORATORY	GE8261	105	ELECTRICAL AND ELECTRONICS ENGINEERING	✓		✓
16.	ELECTRIC CIRCUITS LABORATORY	EE8261	105	ELECTRICAL AND ELECTRONICS ENGINEERING	✓		✓
17.	TRANSFORMS AND PARTIAL DIFFERENTIAL EQUATIONS	MA8353	105	ELECTRICAL AND ELECTRONICS ENGINEERING			✓
18.	DIGITAL LOGIC CIRCUIT	EE8351	105	ELECTRICAL AND ELECTRONICS ENGINEERING			✓

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19.	ELECTROMAGNETIC THEORY	EE8391	105	ELECTRICAL AND ELECTRONICS ENGINEERING	✓		✓
20.	ELECTRICAL MACHINES-I	EE8301	105	ELECTRICAL AND ELECTRONICS ENGINEERING	✓	✓	
21.	ELECTRON DEVICES AND CIRCUITS	EC8353	105	ELECTRICAL AND ELECTRONICS ENGINEERING	✓	✓	
22.	POWER PLANT ENGINEERING	ME8792	105	ELECTRICAL AND ELECTRONICS ENGINEERING	✓	✓	
23.	ELECTRONICS LABORATORY	EC8311	105	ELECTRICAL AND ELECTRONICS ENGINEERING	✓		
24.	ELECTRICAL MACHINES LABORATORY -I	EE8311	105	ELECTRICAL AND ELECTRONICS ENGINEERING		✓	
25.	NUMERICAL METHODS	MA8491	105	ELECTRICAL AND ELECTRONICS ENGINEERING			✓
26.	ELECTRICAL MACHINES-II	EE8401	105	ELECTRICAL AND ELECTRONICS ENGINEERING	✓	✓	
27.	TRANSMISSION AND DISTRIBUTION	EE8402	105	ELECTRICAL AND ELECTRONICS ENGINEERING	✓	✓	
28.	MEASUREMENTS AND INSTRUMENTATION	EE8403	105	ELECTRICAL AND ELECTRONICS ENGINEERING	✓	✓	
29.	LINEAR INTEGRATED CIRCUITS AND APPLICATIONS	EE8451	105	ELECTRICAL AND ELECTRONICS ENGINEERING	✓	✓	

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19.	ELECTROMAGNETIC THEORY	EE8391	105	ELECTRICAL AND ELECTRONICS ENGINEERING	✓		✓
20.	ELECTRICAL MACHINES-I	EE8301	105	ELECTRICAL AND ELECTRONICS ENGINEERING	✓	✓	
21.	ELECTRON DEVICES AND CIRCUITS	EC8353	105	ELECTRICAL AND ELECTRONICS ENGINEERING	✓	✓	
22.	POWER PLANT ENGINEERING	ME8792	105	ELECTRICAL AND ELECTRONICS ENGINEERING	✓	✓	
23.	ELECTRONICS LABORATORY	EC8311	105	ELECTRICAL AND ELECTRONICS ENGINEERING	✓		
24.	ELECTRICAL MACHINES LABORATORY -I	EE8311	105	ELECTRICAL AND ELECTRONICS ENGINEERING		✓	
25.	NUMERICAL METHODS	MA8491	105	ELECTRICAL AND ELECTRONICS ENGINEERING			✓
26.	ELECTRICAL MACHINES-II	EE8401	105	ELECTRICAL AND ELECTRONICS ENGINEERING	✓	✓	
27.	TRANSMISSION AND DISTRIBUTION	EE8402	105	ELECTRICAL AND ELECTRONICS ENGINEERING	✓	✓	
28.	MEASUREMENTS AND INSTRUMENTATION	EE8403	105	ELECTRICAL AND ELECTRONICS ENGINEERING	✓	✓	
29.	LINEAR INTEGRATED CIRCUITS AND APPLICATIONS	EE8451	105	ELECTRICAL AND ELECTRONICS ENGINEERING	✓	✓	

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30.	CONTROL SYSTEMS	IC8451	105	ELECTRICAL AND ELECTRONICS ENGINEERING	✓	✓	
31.	ELECTRICAL MACHINES LABORATORY -II	EE8411	105	ELECTRICAL AND ELECTRONICS ENGINEERING	✓	✓	
32.	LINEAR AND DIGITAL INTEGRATED CIRCUITS LABORATORY	EE8461	105	ELECTRICAL AND ELECTRONICS ENGINEERING	✓	✓	
33.	TECHINCAL SEMINAR	EE8412	105	ELECTRICAL AND ELECTRONICS ENGINEERING			✓
34.	POWER SYSTEM ANALYSIS	EE8501	105	ELECTRICAL AND ELECTRONICS ENGINEERING	✓	✓	
35.	MICROPROCESSORS AND MICROCONTROLLERS	EE8551	105	ELECTRICAL AND ELECTRONICS ENGINEERING	✓	✓	
36.	POWER ELECTRONICS	EE8552	105	ELECTRICAL AND ELECTRONICS ENGINEERING	✓	✓	
37.	DIGITAL SIGNAL PROCESSING	EE8591	105	ELECTRICAL AND ELECTRONICS ENGINEERING			✓
38.	OBJECT ORIENTED PROGRAMMING	CS8392	105	ELECTRICAL AND ELECTRONICS ENGINEERING	✓		✓
39.	BASICS OF BIOMEDICAL INSTRUMENTATION	OMD551	105	ELECTRICAL AND ELECTRONICS ENGINEERING	✓	✓	

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40.	CONTROL AND INSTRUMENTATION LABORATORY	EE8511	105	ELECTRICAL AND ELECTRONICS ENGINEERING	✓	✓	✓
41.	PROFESSIONAL COMMUNICATION	HS8581	105	ELECTRICAL AND ELECTRONICS ENGINEERING	✓		
42.	OBJECT ORIENTED PROGRAMMING LABORATORY	CS8383	105	ELECTRICAL AND ELECTRONICS ENGINEERING	✓		✓
43.	SOLID STATE DRIVES	EE8601	105	ELECTRICAL AND ELECTRONICS ENGINEERING	✓	✓	✓
44.	PROTECTION AND SWITCH GEAR	EE8602	105	ELECTRICAL AND ELECTRONICS ENGINEERING	✓	✓	✓
45.	EMBEDDED SYSTEMS	EE8691	105	ELECTRICAL AND ELECTRONICS ENGINEERING	✓	✓	✓
46.	DESIGN OF ELECTRICAL APPARATUS	EE8002	105	ELECTRICAL AND ELECTRONICS ENGINEERING	✓	✓	✓
47.	SPECIAL ELECTRICAL MACHINES	EE8005	105	ELECTRICAL AND ELECTRONICS ENGINEERING	✓	✓	✓
48.	POWER ELECTRONICS AND DRIVES LABORATORY	EE8661	105	ELECTRICAL AND ELECTRONICS ENGINEERING	✓	✓	✓
49.	MICROPROCESSORS AND MICROCONTROLLERS LABORATORY	EE8681	105	ELECTRICAL AND ELECTRONICS ENGINEERING	✓		✓

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PUNALKULAM 613 303

50.	MINI PROJECT	EE8611	105	ELECTRICAL AND ELECTRONICS ENGINEERING	✓		
51.	HIGH VOLTAGE ENGINEERING	EE8701	105	ELECTRICAL AND ELECTRONICS ENGINEERING	✓	✓	✓
52.	POWER SYSTEM OPERATION AND CONTROL	EE8702	105	ELECTRICAL AND ELECTRONICS ENGINEERING	✓	✓	✓
53.	RENEWABLE ENERGY SYSTEMS	EE8703	105	ELECTRICAL AND ELECTRONICS ENGINEERING	✓	✓	✓
54.	INTRODUCTION TO C PROGRAMMING	OCS752	105	ELECTRICAL AND ELECTRONICS ENGINEERING			✓
55.	DISASTER MANAGEMENT	GE8071	105	ELECTRICAL AND ELECTRONICS ENGINEERING			✓
56.	POWER SYSTEMS TRANSIENTS	EE8010	105	ELECTRICAL AND ELECTRONICS ENGINEERING	✓		✓
57.	POWER SYSTEM SIMULATION LABORATORY	EE8711	105	ELECTRICAL AND ELECTRONICS ENGINEERING	✓	✓	✓
58.	RENEWABLE ENERGY SYSTEMS LABORATORY	EE8712	105	ELECTRICAL AND ELECTRONICS ENGINEERING	✓	✓	✓
59.	ELECTRIC ENERGY GENERATION, UTILIZATION AND CONSERVATION	EE8015	105	ELECTRICAL AND ELECTRONICS ENGINEERING	✓	✓	✓

19/11/21

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60.	MICRO CONTROLLER BASED SYSTEM DESIGN	EE8018	105	ELECTRICAL AND ELECTRONICS ENGINEERING	✓	✓	✓
61.	PROJECT WORK	EE8811	105	ELECTRICAL AND ELECTRONICS ENGINEERING	✓	✓	✓

15/11/21

HOD/EEE

Dr.A.ALBERT MARTIN RUBAN, M.E., Ph.D.,
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DEPARTMENT OF MECHANICAL ENGINEERING

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DEPARTMENT OF MECHANICAL ENGINEERING

COURSE MAPPING - EXPERIENTIAL LEARNING

ANNA UNIVERSITY – 2017 REGULATIONS

S.No	COURSE NAME	COURSE CODE	PROGRAMME CODE	PROGRAMME	PROJECT WORK	FIELD VISIT/ INDUSTRIAL VISIT	INTERNSHIP/ IN-HOUSE TRAINING
1.	Communicative English	HS8151	114	Mechanical Engineering	✓		
2.	Engineering Mathematics – I	MA8151	114	Mechanical Engineering			✓
3.	Engineering Physics	PH8151	114	Mechanical Engineering		✓	
4.	Engineering Chemistry	CY8151	114	Mechanical Engineering			✓
5.	Problem Solving and Python Programming	GE8151	114	Mechanical Engineering		✓	
6.	Engineering Graphics	GE8152	114	Mechanical Engineering			✓
7.	Problem Solving and Python Programming Laboratory	GE8161	114	Mechanical Engineering	✓		

29/5/23

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8.	Physics and Chemistry Laboratory	BS8161	114	Mechanical Engineering		✓	
9.	Technical English	HS8251	114	Mechanical Engineering	✓		
10.	Engineering Mathematics – II	MA8251	114	Mechanical Engineering			✓
11.	Materials Sciences	PH8251	114	Mechanical Engineering			✓
12.	Basic Electrical, Electronics and Instrumentation Engineering	BE8253	114	Mechanical Engineering			✓
13.	Environmental Science and Engineering	GE3291	114	Mechanical Engineering		✓	
14.	Engineering Mechanics	GE8292	114	Mechanical Engineering			✓
15.	Engineering Practices Laboratory	GE8261	114	Mechanical Engineering		✓	
16.	Basic Electrical, Electronics and Instrumentation Engineering Laboratory	BE8261	114	Mechanical Engineering	✓		✓

T. Purushothy 29/5/23
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J. Mohamed
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17.	Transforms and Partial Differential Equations	MA8353	114	Mechanical Engineering			✓
18.	Engineering Thermodynamics	ME8391	114	Mechanical Engineering		✓	✓
19.	Fluid Mechanics and Machinery	CE8394	114	Mechanical Engineering		✓	
20.	Manufacturing Technology - I	ME8351	114	Mechanical Engineering		✓	✓
21.	Electrical Drives and Controls	EE8353	114	Mechanical Engineering	✓		
22.	Manufacturing Technology Laboratory - I	ME8361	114	Mechanical Engineering		✓	✓
23.	Computer Aided Machine Drawing	ME8381	114	Mechanical Engineering	✓		✓
24.	Electrical Engineering Laboratory	EE8361	114	Mechanical Engineering	✓		✓
25.	Interpersonal Skills / Listening & Speaking	HS8381	114	Mechanical Engineering	✓		
26.	Statistics and Numerical Methods	MA8452	114	Mechanical Engineering			✓
27.	Kinematics of Machinery	ME8492	114	Mechanical Engineering		✓	✓

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28.	Manufacturing Technology – I	ME8451	114	Mechanical Engineering	✓		✓
29.	Strength of Materials for Mechanical Engineers	ME8491	114	Mechanical Engineering			✓
30.	Thermal Engineering- I	ME8493	114	Mechanical Engineering			✓
31.	Manufacturing Technology Laboratory – II	ME8462	114	Mechanical Engineering		✓	✓
32.	Strength of Materials and Fluid Mechanics and Machinery Laboratory	CE8381	114	Mechanical Engineering			✓
33.	Thermal Engineering- II	ME8595	114	Mechanical Engineering			✓
34.	Design of Machine Elements	ME8593	114	Mechanical Engineering	✓		✓
35.	Metrology and Measurements	ME8501	114	Mechanical Engineering	✓	✓	
36.	Dynamics of Machines	ME8594	114	Mechanical Engineering		✓	✓
37.	Internal Combustion Engine	OAT552	114	Mechanical Engineering			✓

T. Purushothaman
H.O.D 29/5/23
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PUNALKULAM - 613 303

38.	Kinematics and Dynamics Laboratory	ME8511	114	Mechanical Engineering			✓
39.	Thermal Engineering Laboratory	ME8512	114	Mechanical Engineering		✓	✓
40.	Metrology and Measurements Laboratory	ME8513	114	Mechanical Engineering	✓	✓	
41.	Design of Transmission Systems	ME8651	114	Mechanical Engineering	✓	✓	✓
42.	Computer Aided Design and Manufacturing	ME8691	114	Mechanical Engineering	✓		
43.	Heat and Mass Transfer	ME8693	114	Mechanical Engineering		✓	✓
44.	Finite Element Analysis	ME8692	114	Mechanical Engineering			✓
45.	Hydraulics and Pneumatics	ME8694	114	Mechanical Engineering		✓	✓
46.	CAD / CAM Laboratory	ME8681	114	Mechanical Engineering	✓		
47.	Design and Fabrication Project	ME8682	114	Mechanical Engineering	✓	✓	
48.	Professional Communication	HS8581	114	Mechanical Engineering	✓		

T. Pandiyan 29/5/23
H.O.D
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J. Prabhu 29/5/2023
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PUNALKULAM 613 303

49.	Power Plant Engineering	ME8792	114	Mechanical Engineering		✓	
50.	Process Planning and Cost Estimation	ME8793	114	Mechanical Engineering	✓		
51.	Mechatronics	ME8791	114	Mechanical Engineering	✓	✓	
52.	Robotics	OIE751	114	Mechanical Engineering	✓	✓	
53.	Un Conventional Machining Process	ME8097	114	Mechanical Engineering		✓	✓
54.	Non Destructive Testing & Evaluation	ME8097	114	Mechanical Engineering	✓	✓	
55.	Simulation And Analysis Laboratory	ME8711	114	Mechanical Engineering	✓		
56.	Mechatronics Laboratory	ME8781	114	Mechanical Engineering	✓		
57.	Technical Seminar	ME8712	114	Mechanical Engineering	✓		
58.	Principles of Management	MG8591	114	Mechanical Engineering	✓		
59.	Computer Integrated Manufacturing Systems	ME8094	114	Mechanical Engineering	✓		✓

T. Ramkumar
H.O.D 29/5/23
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J. Bonnet
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60.	Project Work	ME8811	114	Mechanical Engineering	✓	✓	

ANNA UNIVERSITY – 2021 REGULATIONS

S.No	COURSE NAME	COURSE CODE	PROGRAMME CODE	PROGRAMME	PROJECT WORK	FIELD VISIT/ INDUSTRIAL VISIT	INTERNSHIP/ IN-HOUSE TRAINING
1.	Professional English - I	HS3152	114	Mechanical Engineering	✓		
2.	Matrices and Calculus	MA3151	114	Mechanical Engineering			✓
3.	Engineering Physics	PH3151	114	Mechanical Engineering	✓		
4.	Engineering Chemistry	. CY3151	114	Mechanical Engineering	✓		
5.	Problem Solving and Python Programming	GE3151	114	Mechanical Engineering			✓
6.	Heritage of Tamils	GE3152	114	Mechanical Engineering	✓		
7.	Problem Solving and Python Programming Laboratory	GE3171	114	Mechanical Engineering			✓
8.	Physics and Chemistry Laboratory	BS3171	114	Mechanical Engineering	✓		
9.	English Laboratory	GE3172	114	Mechanical Engineering	✓		

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10.	Professional English - II	HS3252	114	Mechanical Engineering	✓		
11.	Statistics and Numerical Methods	MA3251	114	Mechanical Engineering			✓
12.	Materials Science	PH3251	114	Mechanical Engineering			✓
13.	Basic Electrical and Electronics Engineering	BE3251	114	Mechanical Engineering			✓
14.	Engineering Graphics	GE3251	114	Mechanical Engineering	✓		
15.	Tamils and Technology	GE3252	114	Mechanical Engineering	✓		
16.	Engineering Practices Laboratory	GE3271	114	Mechanical Engineering			✓
17.	Basic Electrical and Electronics Engineering Laboratory	BE3271	114	Mechanical Engineering			✓
18.	Communication Laboratory	GE3272	114	Mechanical Engineering	✓		
19.	Transforms and Partial Differential Equations	MA3351	114	Mechanical Engineering			✓
20.	Engineering Mechanics	ME3351	114	Mechanical Engineering			✓
21.	Engineering Thermodynamics	ME3391	114	Mechanical Engineering		✓	✓

T. Ravichandran 29/5/23
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22.	Fluid Mechanics and Machinery	CE3391	114	Mechanical Engineering			✓
23.	Engineering Materials and Metallurgy	ME3392	114	Mechanical Engineering		✓	✓
24.	Manufacturing Processes	ME3393	114	Mechanical Engineering			✓
25.	Computer Aided Machine Drawing	ME3381	114	Mechanical Engineering	✓	✓	
26.	Manufacturing Technology Laboratory	ME3382	114	Mechanical Engineering			✓
27.	Professional Development	GE3361	114	Mechanical Engineering	✓		
28.	Theory of Machines	ME3491	114	Mechanical Engineering			✓
29.	Thermal Engineering	ME3451	114	Mechanical Engineering		✓	✓
30.	Hydraulics and Pneumatics	ME3492	114	Mechanical Engineering			✓
31.	Manufacturing Technology	ME3493	114	Mechanical Engineering		✓	✓
32.	Strength of Materials	CE3491	114	Mechanical Engineering			✓
33.	Environmental Sciences and Sustainability	GE3451	114	Mechanical Engineering		✓	

T. Punniamoorthy
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