### ANNA UNIVERSITY:: CHENNAI - 600 025

#### **UNIVERSITY DEPARTMENTS**

# REGULATIONS 2015 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 University Departments from the Academic year 2015 - 2016 onwards)

#### 1. PRELIMINARY DEFINITIONS AND NOMENCLATURE

In this Regulation, unless the context otherwise specifies:

- **I.** "Programme" means Degree Programme (i.e) B.E. / B.Tech. Degree Programme.
- **II.** "Discipline" means Branch or Specialization of B.E. / B.Tech. Degree Programme, like Civil Engineering, Bio Technology, etc.,
- **III.** "Course" means a Theory or Practical subject that is normally studied in a semester, like Mathematics, Physics, Engineering Graphics, etc.,
- **IV.** "Director, Academic Courses" means the authority of the University who is responsible for all academic activities for the implementation of relevant rules and regulations.
- V. "Additional Controller of Examinations" means the Authority of the University who is responsible for all activities of the End Semester Examinations of the University Departments.
- VI. "Head of the Institution" means the Dean of the campus.
- VII. "Chairman" means Head of the Faculty.
- VIII. "Head of the Department" means Head of the University Department concerned.
- IX. "University" means ANNA UNIVERSITY, CHENNAI.

# 2. ADMISSION PROCEDURE

- 2.1 Students for admission to the first semester of the eight semester B.E. / B.Tech. Degree Programme shall be required to have a pass in Higher Secondary Examination (Academic 10 + 2) Curriculum or its equivalent examinations with Mathematics, Physics and Chemistry.
- **2.2.** The eligibility criteria such as marks, number of attempts and physical fitness shall be as prescribed by the Syndicate of the University from time to time.

# 3. PROGRAMMES OFFERED

A student may be offered admission to any one of the programme of study approved by the University and offered at various campuses of the University.

Details of programmes currently being offered by the University are listed Faculty-wise in **Annexure - I** 

#### 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 and Social Sciences (HS)** courses include Technical English, Employability Skills, 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 relevant to the chosen specialization / branch which a student can choose from the curriculum of other B.E. / B. Tech. / B. Arch. programmes and courses offered by the Departments under the Faculty of Science and Humanities
- vii. **Employability Enhancement Courses (EEC)** include Project Work and/or Internship, Creative and Innovative Project, Seminar, Professional Practices, Case Study and Industrial/Practical Training.

#### 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. The activities will include practical projects on recycling and reusing biodegradable and dry waste.

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

Curriculum of a semester shall normally have a blend of 5 or 6 lecture courses and laboratory courses not exceeding 2. In addition, Employability Enhancement Course(s) may also be included. Each course may have credits assigned as per clause 4.4. However, the total number of courses per semester shall not exceed 10 (including EEC).

# 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 Practical Periods (Laboratory / Seminar / Project Work / etc.)	1

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

# 4.5. Industrial Training / Internship

**4.5.1** 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.

4.5.2 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 Mark Sheet. If the student earns three credits in Industrial Training / Internship, the student may drop one Professional Elective. In such cases Industrial Training / Internship needs to be undergone continuously from one organization only. However, if the number of credits earned is 1 or 2, these credits shall not be considered for classification of the degree. The student is allowed to undergo a maximum of 6 weeks Industrial Training / Internship during the entire duration of study.

DURATION OF TRAINING / INTERSHIP	CREDITS
2 Weeks	1
4 Weeks	2
6 Weeks	3

### 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 with the prior approval from Centre for Academic Courses. The details of the syllabus, time table and faculty may be sent to the Centre for Academic Courses after approval from the Departmental Consultative Committee concerned. Students can take a maximum of two one credit courses or one Two credit course. They shall be allowed to take one/two credit courses offered in other Departments with the permission of Head of the Department offering the course.

# 4.8 Online Courses / Self Study Courses

- **4.8.1** Students may be permitted to credit only one online course / Self Study course with the approval of Departmental Consultative Committee and Centre for Academic Courses.
- 4.8.2 Students may be permitted to credit online courses (which are provided with certificate) with the approval of Departmental Consultative Committee and Centre for Academic Courses subject to a maximum of three credits. The student needs to obtain certification or credit to become eligible for writing the End Semester Examination to be conducted by Anna University. In case of credits earned through online mode from a University approved by appropriate authorities of Anna University, the credits may be transferred after due approval procedures from Departmental Consultative Committee and Centre for Academic Courses.
- 4.8.3 The student can opt for Self Study course from the V semester onwards, provided the student satisfies the following criteria.

The student does not have current arrears and earns a CGPA of 8.0 and above upto the previous semester. The Department / Centre / Division may offer self study courses. The purpose of the course is to permit the student to study a course / a topic of the student's choice. The students shall study on their own under the guidance of a faculty member. No formal lectures need be delivered. The syllabus of the course (if it is not part of any of the curricula of the programmes offered in the university) and mode of assessments shall be approved by the Departmental Consultative Committee and forwarded to the Centre for Academic Courses for the formal approval of the course by the academic bodies, preferably One Faculty member approved by the Head of the Department shall be responsible for the periodic monitoring and evaluation of the course before the commencement of the semester.

**4.8.4** The self study course / online course of 3 credits can be considered instead of one elective course.

#### 4.9 Medium of Instruction

The medium of instruction is English for all courses, (except Tamil Medium batches of B.E. Civil Engineering and Mechanical Engineering programmes) examinations, seminar presentations and project / thesis / dissertation reports.

The medium of instruction is Tamil for Tamil Medium batches of B.E. Civil Engineering and B.E. Mechanical Engineering.

#### 5. DURATION OF THE PROGRAMMES

- 5.1 A student is normally expected to complete the B.E. / B.Tech. Programme in 4 years (8 Semesters) but in any case not more than 7 years (14 Semesters).
- **5.2** Each semester shall normally consist of 90 working days (including examination days). The Head of the Department shall ensure that every teacher imparts instruction as per the number of periods specified in the syllabus covering the full content of the syllabus for the course being taught.
- 5.3 The total duration for completion of the programme reckoned from the commencement of the first semester to which the student was admitted shall not exceed the maximum duration specified in clause 5.1 irrespective of the period of break of study (vide clause 16) or prevention (vide clause 7.4) in order that the student may be eligible for the award of the degree (vide clause 14).

#### 6. COURSE ENROLLMENT AND REGISTRATION

- 6.1 Each student, on admission shall be assigned to a Faculty Advisor (vide clause 8) who shall advise and counsel the student about the details of the academic programme and the choice of courses considering the student's academic background and career objectives.
- **6.2** Every student has to do course enrollment and registration within the stipulated time.
- 6.3 After registering for a course, a student shall attend the classes, satisfy the attendance requirements, earn Continuous Assessment marks and appear for the End Semester Examinations.
- **6.3.1** Each student on admission shall register for **all the courses prescribed in the curriculum in** the student's **first Semester of study.**
- **6.3.2** The enrollment for all the courses of the Semester II will commence 5 working days prior to the commencement of Semester II. The student shall confirm the enrollment by registering the courses within the first 5 working days from the commencement of the Semester II.
- 6.3.3 The enrollment for the courses from the Semesters III to VIII will commence 5 working days prior to the commencement of the succeeding semester. The student shall enroll for the courses with the guidance of the student's Faculty Advisor. If the student wishes, the student may drop or add courses (vide clause 6.4) within 5 working days after the commencement of the concerned semester and complete the registration process duly authorized by the Faculty Advisor. The student is allowed to register for courses for which the student has not enrolled, if these are the courses in which the student has failed.

# 6.4 Flexibility to Add or Drop courses

- **6.4.1** 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. However, if the student wishes, then the student is permitted to earn more than the total number of credits prescribed in the curriculum of the student's programme.
- **6.4.2** From the III to VIII semesters, the student has the option of registering for additional courses or dropping existing courses. The maximum number of credits the student can register in a particular semester cannot exceed 36 credits (including courses for which the student has done reappearance registration (vide clause 6.5)). The Total number of credits that a student can drop is limited to 8, course to a maximum of 2 courses.
- **6.4.3** The student shall register for the project work in the VIII semester only.

# 6.5 Reappearance Registration

When the Student does Reappearance Registration, the student shall earn Continuous Assessment marks and attend end semester examination. The student may attend the classes for the reappearance registration courses, if the student wishes. However, the attendance requirement (vide clause 7) is not compulsory for such courses.

# Reappearance Registration is applicable for the following cases:

- 6.5.1 If a student fails in a core theory course, the student shall do reappearance registration for that course in the subsequent semester when it is offered next.
- 6.5.2 If the theory course, in which the student has failed, is a professional elective or an open elective, and the student chooses to opt for the same professional elective or open elective course, the student shall do reappearance registration for that course(s) in the subsequent semester when it is offered next.
- 6.5.3 If a student has applied for withdrawal from writing end semester examination of a course (Theory / Laboratory / Elective) the student shall do reappearance registration for that course in the subsequent semester when it is offered next. Withdrawal shall not be considered as an appearance for deciding the eligibility of a student for First Class with Distinction.

# 6.6 Repeating the Course

When the Student repeats the course, the student shall attend the classes, satisfy the attendance requirements (vide clause 7), earn Continuous Assessment marks and appear for the End Semester Examinations.

#### Repeating the Course is applicable for the following cases:

- **6.6.1** The student who fails in any Laboratory Course/ Project work / Seminar and any other EEC course shall register for the same in the subsequent semester, when offered next, and repeat the course. In this case, the student shall attend the classes and fulfill the attendance requirements as per clause 7.
- 6.6.2 If a student is prevented from writing end semester examination of any course due to lack of attendance and that course is a core course (Theory / Laboratory), the student has to register for that course again, when offered next, and repeat the course. In this case, the student shall attend the classes and fulfill the attendance requirements as per clause 7. If the course is a Professional Elective or an Open Elective and the candidate opts for the same course the student has to register for that course again, when offered next, and repeat the course. In this case, the student shall attend the classes and fulfill the attendance requirements as per clause 7.

# 7. REQUIREMENTS FOR APPEARING FOR THE END SEMESTER EXAMINATION OF A COURSE

A student who has fulfilled the following conditions (vide clause 7.1 and 7.2) shall be deemed to have satisfied the attendance requirements for appearing for end semester examination of a particular course.

7.1 Ideally every student is expected to attend all periods and earn 100% attendance. However, the student shall secure not less than 75% attendance course wise taking into account the number of periods required for that course as specified in the curriculum.

- 7.2 If a student secures attendance between 65% and less than 75% in any course in the current semester due to medical reasons (hospitalization / accident / specific illness) or due to participation in the College / University / State / National / International level Sports events with prior permission from the Chairman, Sports Board and Head of the Department concerned, the student shall be given exemption from the prescribed attendance requirement and the student shall be permitted to appear for the end semester examination of that course. In all such cases, the students should submit the required documents on joining after the absence to the Head of the Department through the Faculty Advisor.
- 7.3 A student shall normally be permitted to appear for End semester examination of the course if the student has satisfied the attendance requirements (vide Clause 7.1 7.2) and has registered for examination in those courses of that semester by paying the prescribed fee.
- 7.4 Students who do not satisfy clause 7.1 and 7.2 and who secure **less than 65%** attendance in a course will not be permitted to write the End-Semester Examination of that course. The student has to register and repeat this course in a subsequent semester when it is offered next (vide clause 6.6.2).
- 7.5 In the case of reappearance registration for a course (vide Clause 6.5), the attendance requirement as mentioned in Clauses 7.1 7.3 is not applicable. However, the student has to register for examination in that course by paying the prescribed fee.
- **7.6** A student who has already appeared for a course in a semester and passed the examination is not entitled to reappear in the same course for improvement of letter grades / marks.

#### 8. FACULTY ADVISOR

To help the students in planning their courses of study and for general advice on the academic programme, the Head of the Department of the students will attach a certain number of students to a teacher of the Department who shall function as Faculty Advisor for those students throughout their period of study. The Faculty Advisor shall advise the students in registering and reappearance registering of courses, authorize the process, monitor their attendance and progress and counsel them periodically. If necessary, the Faculty Advisor may also discuss with or inform the parents about the progress / performance of the students concerned.

The responsibilities for the faculty advisor shall be:

- To inform the students about the various facilities and activities available to enhance the student's curricular and co-curricular activities.
- To guide student enrollment and registration of the courses.
- To authorize the final registration of the courses at the beginning of each semester.
- To monitor the academic and general performance of the students including attendance and to counsel them accordingly.

# 9. COURSE COMMITTEES

### 9.1 COMMON COURSE COMMITTEE

A theory course handled by more than one teacher shall have a "Common Course Committee" comprising of all teachers teaching that course. One of the teachers shall be nominated as Course Coordinator by the Faculty Chairman duly approved by the Director, Academic Courses.

The first meeting of the Common Course Committee shall be held within fifteen days from the date of commencement of the semester. The nature and weightage of the continuous assessments shall be decided in the first meeting, within the framework of the Regulations.

Two or three subsequent meetings in a semester may be held at suitable intervals. During these meetings, the student members shall meaningfully interact and express their opinions and suggestions of all the students to improve the effectiveness of the teaching-learning process. It is the responsibility of the student representatives to convey the proceedings of these meetings to the whole batch.

In addition the "Common Course Committee" (without the student representatives) shall meet to ensure uniform evaluation of continuous assessments after arriving at a common scheme of evaluation for the assessments (vide clause 10).

Wherever feasible, the common course committee (without the student representatives) shall prepare a common question paper for the continuous assessment tests also. The question paper for the end semester examination is common and shall be set by the Course Coordinator in consultation with all the teachers.

### 9.2 MULTIPLE COURSES COMMITTEE

If a programme has in a semester, course(s) handled by a single teacher, there will be a "Multiple Courses Committee" comprising of all the above teachers and two student representatives from each course. One of the above teachers, nominated by the Head of the Department shall coordinate the activities of this committee. The functions of this committee is similar to that of the common course committee, which is as follows:

The first meeting of the Multiple Courses Committee shall be held within fifteen days from the date of commencement of the semester. The nature and weightage of the continuous assessments shall be decided in the first meeting, within the framework of the Regulations. Two or three subsequent meetings in a semester may be held at suitable intervals. During these meetings, the student members shall meaningfully interact and express their opinions and suggestions of all the students to improve the effectiveness of the teaching-learning process. It is the responsibility of the student representatives to convey the proceedings of these meetings to all the students.

# 9.3 OVERALL MONITORING COMMITTEE

- 9.3.1 In addition, there shall be a overall monitoring committee for each semester of a programme which comprises of (i) the Course Coordinators / Course teachers (as applicable), (ii) the Faculty Advisors of the programme and (iii) the Head of Department. This overall monitoring committee shall meet periodically to discuss academic related matters, progress and status of the students of the semester concerned.
- **9.3.2** The overall monitoring committee can invite the students for any of the committee meetings if necessary.

# 10. ASSESSMENT PROCEDURES FOR AWARDING MARKS

All B.E./B.Tech. Programmes consist of Theory Courses, Laboratory Courses and Employability Enhancement Courses. Employability Enhancement Courses include Project Work, Seminar, Professional Practices, Case Study and Industrial/Practical Training. Appearance in End Semester Examination is mandatory for all courses including Theory, Laboratory and Project work.

Performance in each course of study shall be evaluated based on (i) Continuous assessments throughout the semester and (ii) End Semester Examination at the end of the semester. For Theory Courses out of 100 marks, the maximum marks for Continuous

Assessment is fixed as 50 and the End Semester Examination carries 50 marks. For Laboratory Courses out of 100 marks, the maximum marks for Continuous Assessment is fixed as 75 and the End Semester Examination carries 25 marks. The continuous assessment is 60 marks for the Project Work, and project report evaluation and viva-voce examination carries 40 marks. All other courses included under Employability Enhancement Courses are evaluated by Continuous Assessments only.

(i.e.) Each course shall be evaluated for a maximum of 100 marks as shown below:

S.No	Category of course	Continuous	End-Semester	
		Assessments	Examinations	
i.	Theory Courses	50 Marks	50 Marks	
ii.	Laboratory Courses	75 Marks	25 Marks	
iii.	Project Work	60 Marks	40 Marks	
iv.	All other EEC Courses	100 Marks	-	

Every teacher is required to maintain an 'ATTENDANCE AND ASSESSMENT RECORD' for every semester which consists of attendance marked in each theory / Laboratory/EEC class, the assessment marks and the record of class work (topics covered), separately for each course handled by the teacher. 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 assessment marks and attendance. The Head of the Department will affix his/her signature and date after due verification. At the end of the semester, the record should be verified by the Head of the Department who shall keep this document in safe custody (for eight years). The records of attendance and assessment of both current and previous semesters should be available for inspection.

#### 10.1 ASSESSMENT FOR THEORY COURSES:

For Theory Courses out of 100 marks, the maximum marks for Continuous Assessment is fixed as 50 and the End Semester Examination carries 50 marks.

The University examinations (End Semester Exams) for theory courses will be of 3 hours duration and shall normally be conducted between October and December during the odd semesters and between April and June during the even semesters. End semester Examination is mandatory requirement for passing the course and every student should appear for the examination for theory, laboratory courses and project work.

Continuous Assessment comprises of two assessments of equal weightage, conducted by the course instructor / coordinator / department. The total marks obtained in the **2 assessments** put together shall be reduced to 50 marks and rounded to the nearest integer. One assessment would be conducted in a day (in the case of tests and they would be of one and a half hours durations each). Students will have regular classes the assessment days of these tests. In case a student misses the assessment due to medical reasons (hospitalization / accident / specific illness) or due to participation in the College / University / State / National / International level Sports events with prior permission from the Chairman, Sports Board a **Reassessment** may be given at the end of the semester after getting approval from the Head of the Department through the concerned course instructor.

If a student has failed (vide clause 11.1) in a theory course, the continuous assessment marks the student has earned is no longer valid. The student on doing reappearance registration has to appear for the assessments along with the current batch of students and earn continuous assessment marks again.

#### 10.2 ASSESSMENT FOR LABORATORY COURSES:

For Laboratory Courses out of 100 marks, the maximum marks for Continuous Assessment is fixed as 75 and the End Semester Examination carries 25 marks.

Every laboratory exercise / experiment shall be evaluated based on the student performance during the laboratory class and the student's records maintained. There shall be at least one assessment test. The criteria for arriving at the Continuous Assessment marks of 75 shall be decided at the respective course committee meetings.

The University examinations for Laboratory courses will be of 3 hours duration and shall normally be conducted between October and December during the odd semesters and between April and June during the even semesters.

The student who fails (vide clause 11.1) in the laboratory course shall register for the same in the subsequent semester, when offered next, and repeat the laboratory course again.

#### 10.3 ASSESSMENT FOR PROJECT WORK:

For Project work out of 100 marks, the maximum marks for Continuous Assessment is fixed as 60 and the End Semester Examination (project report evaluation and viva-voce examination) carries 40 marks. Project work may be assigned to a single student or to a group of students not exceeding 4 per group.

There shall be **two assessments** (each 100 marks) during the semester by a review committee. The student shall make presentation on the progress made before the committee. The Head of the Department shall constitute a review committee for each programme. There shall be a minimum of three members in the review committee. The project **Guide** will be one of the members of the Review Committee. The total marks obtained in the two Reviews shall be 60 marks.

The student(s) is expected to submit the project report on or before the last working day of the semester. The University examination for project work shall consist of evaluation of the final project report submitted by the student or students of the project group by an external examiner followed by a viva-voce examination conducted separately for each student by a committee consisting of the external examiner, the guide of the project group and an internal examiner. The Head of the Department with the approval of the Chairman of the Faculty shall appoint Internal and External Examiners for the End Semester Examinations of the Project Work.

The continuous assessment and End Semester Examinations marks for Project Work and the Viva-Voce Examination will be distributed as indicated below.

Continuous Assessment 60 Marks			End S		ter Examinati Marks	on	
Review I (30 Marks)		Review (30 Mark		Report Evaluation (10 Marks)	Viva – Voce (30 Marks)		
Review Committee (excluding guide)	Guide	Review Committee (excluding guide)	Guide	External Examiner	Guide	External Examiner	Internal Examiner
20	10	20	10	10	10	10	10

10.3.1 If the project report is not submitted on or before the specified deadline, an extension of time up to a maximum limit of 30 days may be given for the submission of project work with due approval obtained from the Head of the Department. If the project report is not submitted even beyond the extended time then the student(s) is deemed to have failed in the Project Work. The failed student(s) shall register for the same in the subsequent semester, when offered next, and repeat the project work again.

# 10.4 ASSESSMENT FOR SEMINAR / PROFESSIONAL PRACTICES / CASE STUDY/ CREATIVE AND INNOVATIVE PROJECT:

The Seminar / Case study / Creative and Innovative Project shall carry 100 marks and shall be evaluated through continuous assessment 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 Department 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 / report (40%), presentation (40%) and response to the questions asked during presentation (20%). For the Creative and Innovative Project every student is expected to present a minimum of 2 seminars / demonstrations per semester before the evaluation committee and for each such presentation, marks can be equally apportioned. The three member committee appointed by Head of the Department will evaluate the project 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 / report / activities carried out (40%), presentation (40%) and response to the questions asked during presentation (20%).

# 10.5 ASSESSMENT FOR INDUSTRIAL / PRACTICAL TRAINING / INTERNSHIP / SUMMER PROJECT

10.5.1 The Industrial / Practical Training shall carry 100 marks and shall be evaluated through continuous assessment only as per Table 1. At the end of Industrial / Practical training / internship / Summer Project, the student shall submit a certificate from the organization where the student has undergone training and a brief report about the training. The evaluation will be made based on this report, presentation and a Viva-Voce Examination conducted internally by a three member Departmental Committee constituted by the Head of the Department. Certificates (issued by the Organization) submitted by the student shall be attached to the mark list and sent to Additional Controller of Examinations by the Head of the Department.

10.5.2The Industrial / Practical Training which is not part of the curriculum (Clause 4.5.2), shall carry 100 marks and shall be evaluated through internal assessment only as per Table 1. At the end of Industrial / Practical training / internship / Summer Project, the student shall submit a certified report (evaluated out of 100 marks by a mentor/guide) from the organization where the student has undergone training. The Viva-Voce Examination will be conducted by a three member committee constituted by the Head of the Department. The committee comprises of one expert from an industry/organisation and two members of the Department. Certificates (issued by the Organization) submitted by the student shall be attached to the mark list (with grade) and sent to Additional Controller of Examinations by the Head of the Department.

Table 1

INTERNSHIP / INDUSTRIAL TRAINING			
	EVALUATION		
REPORT	PRESENTATION	VIVA VOCE	
40	30	30	

#### 10.6 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. The Head of the Department may identify a faculty member as coordinator for the course. A committee consisting of the Head of the Department, staff handling the course (if available), coordinator and a senior Faculty member nominated by the Head of the Department shall monitor the evaluation process. The grades shall be assigned to the students by the above committee based on their relative performance.

#### 10.7 ASSESSMENT FOR ONLINE COURSE

Students may be permitted to credit online courses (which are provided with certificate) with the approval of Departmental Consultative Committee and Centre for Academic Courses subject to a maximum of three credits. This online course of 3 credits can be considered instead of one elective course. Departmental Consultative Committee will take a decision on the evaluation methodology for the online course. The Committee can decide whether to evaluate the online courses through Continuous assessment and End Semester Examination or through End Semester Examination only and same may be conveyed to the Director, Academic Courses at the beginning of the semester when the course is offered. The student needs to obtain certification or credit to become eligible for writing the End Semester Examination to be conducted by Anna University. The Head of the Department may identify a faculty member as coordinator for the course, who is responsible for evaluation process. The course shall be evaluated through the End Semester Examination only. A committee consisting of the Head of the Department, coordinator and a senior Faculty member nominated by the Head of the Department shall assign the grades to the students based on their relative performance.

In case of credits earned through online mode from a University approved by appropriate authorities of Anna University, the credits may be transferred and grades shall be assigned by a committee consisting of Chairman of the Faculty concerned, Head of the Department and Senior faculty member nominated by the Chairman.

#### 10.8 ASSESSMENT FOR SELF STUDY COURSE

The Faculty member approved by the Head of the Department shall be responsible for periodic monitoring and evaluation of the course. The course shall be evaluated through Continuous Assessment (as decided by the Departmental Consultative Committee) and End Semester Examination. The evaluation methodology shall be the same as that of a theory course. (vide clause 10.1) A committee consisting of the Head of the Department, the Faculty Member and another senior. Faculty member nominated by the Head of the Department shall assign the grades to the students based on their relative performance.

#### 11. PASSING REQUIREMENTS

- 11.1 The Passing requirement for a student in a course is determined based on the marks obtained both in Continuous Assessment and End Semester Examinations. If the student gets a <50% of total marks then, the student will be awarded only RA (Reappearance) grade. All other grades will be decided by the faculty concerned. A student who earns a minimum of 6 grade points in a course is declared to have successfully passed the course.
- **11.1.1** If a student fails to secure a pass in a theory course (except electives), the student shall do reappearance registration only along with regular students for that course in the subsequent semester, when offered next, earn continuous assessment marks and attend the end semester examination.
- 11.1.2 If the course, in which the student has failed, is a professional elective or an open elective, the student may be permitted to register for the same course, earn continuous assessment marks and attend the End Semester Examination or any other professional elective or open elective course in the subsequent semesters, attend the classes and fulfill the attendance requirements as per Clause 7.
- **11.1.3** If a student fails to secure a pass in a laboratory course, the student shall register for the course again, when offered next.
- **11.1.4** If a student fails to secure a pass in project work, the student shall register for the course again, when offered next.
- 11.2 The passing requirement for the courses which are assessed only through continuous assessment (EEC courses except project work), shall be determined statistically based on the marks obtained in continuous assessment tests.
- 11.3 If a student fails to secure a pass in theory and laboratory courses in the VII and VIII semester examination, he/she is eligible to appear for a one time Supplementary Examination which shall be conducted at the end of VII and VIII semesters within 30 days from the date of declaration of the results. In case a student fails in the Supplementary Examinations reappearance registration along with the regular students alone is permitted in the subsequent semester, when offered next and attend the end semester examination.
- 11.4 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 ACOE through the Head of Departments. The ACOE will arrange for the revaluation and the results will be intimated to the student concerned through the Head of the Department. Revaluation is not permitted for laboratory course and project work.

#### 12 AWARD OF LETTER GRADES

**12.1.** The performance of a student will be reported using letter grades, each carrying certain points as detailed below:

Letter Grade	Grade Points
O (Outstanding)	10
A + (Excellent)	9
A (Very Good)	8
B + (Good)	7
B (Average)	6
RA (Reappearance Registration)	0
SA (Shortage of Attendance)	0

The range of marks for each grade is decided statistically.

'RA' denotes Reappearance registration is required for that particular course.

'SA' denotes shortage of attendance (as per Clause 7) and hence prevented from writing end semester examination.

- 12.2 For the Co-curricular activities such as National Cadet Corps (NCC)/ National Service Scheme (NSS) / NSO / YRC, a satisfactory / not satisfactory grading will appear in the mark sheet. Every student shall put in a minimum of 75% attendance in the training and attend the camp compulsorily. The training and camp 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 second year. A satisfactory grade in the above co-curricular activities is compulsory for the award of degree.
- 12.3 The grades O, A+, A, B+, B obtained for the one/two credit course shall figure in the Mark sheet under the title 'Value Added Courses'. The other grades RA, SA will not figure in the mark sheet.

#### 13. GPA AND CGPA CALCULATION

- 13.1 The Course Teacher shall handover the foil sheet and grade sheet to the HOD concerned for onward transmission to the ACOE, UD for processing of results. After results are declared, Grade Sheets will be issued to each student which will contain the following details:
  - the list of courses registered during the semester and the grades scored.
  - the Grade Point Average (GPA) for the semester and
  - the Cumulative Grade Point Average (CGPA) of all courses registered from first semester onwards.

During each semester, the list of 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 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.

$$GPA = \frac{\sum_{i=1}^{n} c_i GP_i}{\sum_{i=1}^{n} c_i}$$

Where C<sub>i</sub> - is the Credits assigned to the course

GP<sub>i</sub>- is the grade point corresponding to the letter 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.

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

- **13.2** The credits earned through one credit courses shall not be considered for calculating GPA and CGPA.
- 13.3 If a student studies more number of electives (PE/OE) than required as per the student's programme curriculum, the courses with higher grades alone will be considered for calculation of CGPA.

#### 14. ELIGIBILITY FOR THE AWARD OF DEGREE

- **14.1**. 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 within a maximum period of 7 years reckoned from the commencement of the first semester to which the candidate was admitted.
  - iii. Successfully passed any additional courses prescribed by the Director, Academic Courses whenever readmitted under regulations other than R-2015 (vide clause 16.3)
  - 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.

# 14.2 CLASSIFICATION OF THE DEGREE AWARDED

#### 14.2.1 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 in the student's First Appearance within **five** years, which includes authorized break of study of one year. Withdrawal from examination (vide Clause 15) will not be considered as an appearance.
- Should have secured a CGPA of not less than 8.50
- Should NOT have been prevented from writing end semester examination due to lack of attendance in any of the courses.

#### 14.2.2 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 within
  five years, which includes one year of authorized break of study (if availed) or
  prevention from writing the End Semester Examination due to lack of attendance (if
  applicable).
- Should have secured a CGPA of not less than 7.00

### 14.2.3 SECOND CLASS:

All other students (not covered in clauses 14.2.1 and 14.2.2) who qualify for the award of the degree (vide Clause 14.1) shall be declared to have passed the examination in **Second Class**.

**14.2.4.** 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 (except approved withdrawal from end semester examinations as per clause 15) for the purpose of classification.

### 15. PROVISION FOR WITHDRAWAL FROM EXAMINATION:

- 15.1 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, Academic Courses through HOD with required documents.
- 15.2 Withdrawal application shall be valid only if the student is otherwise eligible to write the examination (Clause 7) and if it is made within TEN working days before the commencement of the end semester examination in that course or courses and also recommended by the Head of the Department.
- **15.3** Notwithstanding the requirement of mandatory TEN working days notice, applications for withdrawal for special cases under extraordinary conditions will be considered on the merit of the case.
- **15.4** Withdrawal shall not be considered as an appearance for deciding the eligibility of a student for First Class with Distinction.
- 15.5 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 14.2.1.

#### 16. BREAK OF STUDY FROM A PROGRAMME

- **16.1** A student is permitted to go on break of study for a maximum period of one year either as two breaks of one semester each or a single break of one year.
- 16.2 The student applies for break of study, the student shall apply to the Director, Academic Courses in advance, in any case, not later than the last date of the first assessment period. The application (downloaded from website) duly filled by the student shall be submitted through the Head of the Department. In the case of short term employment/ training/internship, the application for break of study shall be approved and forwarded by the Departmental Consultative Committee to the Director, Centre for Academic Courses.
- 16.3 The students 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 Department at the beginning of the readmitted semester itself for prescribing additional/equivalent courses, if any, from any semester of the regulations in-force, so as to bridge the curriculum in-force and the old curriculum.
- 16.4 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 in order that the student may be eligible for the award of the degree (vide clause 14).
- 16.5 In case there is any period of break of study more than the permitted duration of break of study, the student shall be permitted to continue the programme only if the approval is obtained from the Director, Academic Courses through the concerned HOD before the end of the semester in which the student has taken break of study.
- 16.6 If a student has not reported to the department for a period of two consecutive semesters without any intimation, the name of the student shall be deleted permanently from the college enrollment. Such students are not entitled to seek readmission under any circumstances.

#### 17. DISCIPLINE

- 17.1 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. The Head of the Institution shall constitute a disciplinary committee consisting of Head of the Institution, Head of the departments to which the student concerned belongs, and the Head of another department 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 by the Registrar of the University for taking final decision.
- 17.2 If a student indulges in malpractice in any of the examinations, the student shall be liable for punitive action as prescribed by the University from time to time.

# 18. 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.

# ANNEXURE - I

A student may be offered one of the following programmes of study approved by the University. A student of a programme should earn the credits specified against it to enable the student to be eligible to be awarded the degree.

	SL. 10.	NAME OF THE PROGRAMME	CREDITS TO BE EARNED				
	1. FACULTY OF CIVIL ENGINEERING						
	i)	B.E. Civil Engineering (Tamil & English Medium)	182				
	ii)	B.E. Agricultural and Irrigation Engineering	178				
	iii)	B.E. Geoinformatics	179				
2.	FA						
	i)	B.E. Mechanical Engineering(Tamil & English Medium)	179				
	ii)	B.E. Aeronautical Engineering	179				
	iii)	B.E. Automobile Engineering	176				
	iv)	B.E. Industrial Engineering	179				
	v)	B.E. Manufacturing Engineering	176				
	vi)	B.E. Mining Engineering	186				
		B.E. Printing Technology	180				
	viii)	B.E. Production Engineering	174				
	ix)	B.E. Materials Science & Engineering	174				
3.		CULTY OF ELECTRICAL ENGINEERING					
	i)	B.E. Electrical and Electronics Engineering	176				
_	ii)	B.E. Electronics and Instrumentation Engineering	180				
4.		CULTY OF INFORMATION AND COMMUNICATION ENG					
	i)	B.E. Computer Science and Engineering	178				
	ii)	B.E. Electronics and Communication Engineering	182				
	iii)	B.E. Biomedical Engineering	181				
_	iv)	B. Tech. Information Technology	181				
5.		CULTY OF TECHNOLOGY	100				
	i)	B. Tech. Chemical Engineering	180				
	ii)	B. Tech. Food Technology	181				
	iii)	B. Tech. Pharmaceutical Technology	182				
	iv)	B. Tech. Industrial Bio-Technology	176				
	v)	B. Tech. Rubber and Plastics Technology	179				
	vi)	B. Tech. Textile Technology	179				
	vii)	B. Tech. Leather Technology	177				
	viii)	B. Tech. Ceramic Technology	179				
	ix)	B. Tech. Apparel Technology	174				
	x)	B.Tech. Petroleum Engineering and Technology	180				

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