## ANNA UNIVERSITY : : CHENNAI - 600 025

## UNIVERSITY DEPARTMENTS

## REGULATIONS 2023 CHOICE BASED CREDIT SYSTEM

#### Common to all Five year Integrated M.Sc. (Full-Time) Programmes

(For the students admitted to five year integrated M.Sc. programmes at various University Departments from the Academic year 2023 - 2024 onwards)

### 1. PRELIMINARY DEFINITIONS AND NOMENCLATURE

In this Regulation, unless the context otherwise specifies:

- I. "Programme" means Degree Programme, (i.e.) M.Sc (5 year Integrated) Degree Programme.
- II. "**Specialisation**" means a discipline of M.Sc. Degree Programme like "Computer Science", "Electronic Media", etc.
- III. "Course" means a Theory or Practical subject that is normally studied in a semester, like Discrete Mathematics, Visual Programming , 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 (UD)"** 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. "Chairperson" means Head of the Faculty.
- VIII. "Head of the Department" means Head of the University Department concerned.
- IX. "University" means ANNA UNIVERSITY, CHENNAI.
- X. **"Bonafide students"** means a student who pays the tuition fee to institution and yet to complete all the programme requirements to earn the degree.

### 2. ADMISSION PROCEDURE

2.1 Students for admission to the first semester of the Ten-semester Integrated M.Sc. (Computer Science) / M.Sc. (Information Technology) degree programmes shall be required to have passed the Higher secondary examination of the (10+2) curriculum (Academic Stream) prescribed by the Government of Tamil Nadu with Mathematics, Physics and Chemistry as three of the four courses of study prescribed under Part – III or any other examinations of any other University or authority accepted by the Syndicate of the University as equivalent thereto.

DIRECTOR entre for Academic Courses Anna University, Chennai-600 025

- 2.2 Students for admission to the first semester of the Ten-semester Integrated M.Sc. (Electronic Media) degree programme shall be required to have passed the Higher secondary examination of the (10+2) curriculum prescribed by the appropriate authority of the Government of Tamil Nadu or any other examination of any other University or authority accepted by the Syndicate of the University as equivalent thereto.
- 2.3. 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 5 year integrated M.Sc. degree programme approved by the University.

Programmes currently being offered by the University are listed in Annexure - I

### 4. STRUCTURE OF THE PROGRAMMES

### 4.1 Categorization of Courses

Every M.Sc. (5 year Integrated) Programme will have a curriculum with syllabi consisting of theory and practical courses that shall be categorized as follows:

- i. Foundation Courses (FC) may include Mathematics or other basic courses.
- ii. **Professional Core Courses (PCC)** include the core courses relevant to the chosen specialization/branch.
- iii. **Professional Elective Courses (PEC)** include the elective courses relevant to the chosen specialization/ branch.
- iv. **Research Methodology and IPR Courses (RMC)** to understand importance and process of creation of patents through research.
- v. **Employability Enhancement Courses (EEC)** include Project Work, Internship, 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.

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 lecture courses and practical courses including Employability Enhancement Courses. Each course may have credits assigned as per clause 4.4.

### 4.4 Credit Assignment

Each course is assigned certain number of credits based on the details provided in Table 1.

Contact period per week	Credits
1 Lecture Period	1
Tutorial Period	1
1 Practical Period (Laboratory / Seminar / Project Work etc.)	0.5
2 weeks industrial Training / Internship	

#### Table 1 : Credit Assignment

### 4.5 Project Work

- 4.5.1 The Project work is an important component of M.Sc. degree programmes. The duration of VII/VIII (as specified in the curriculum) semester and X semester projects shall be for a period of 16 weeks. The Project work shall be carried out by the students individually.
- 4.5.2 The VII/VIII and X Semester Projects of M.Sc. (Computer Science) / M.Sc. (Information Technology) / M.Sc. (Electronic Media), have to be carried out in an industrial / software / Media organization, coordinated by a faculty member of the department. In certain special cases, the students may be permitted by the Head of the Department to do the project within the institution.
- 4.5.3 The Project work shall be carried out under the supervision of a "qualified teacher" in the Department concerned. In this context "qualified teacher" means a faculty member possessing (i) PG degree with a minimum of 3 years of teaching experience or (ii) Ph.D. degree.

# 4.6 Industrial Training / Internship

4.6.1 The students may undergo Industrial training for a continuous period as specified in the Curriculum during the summer / winter vacation.

DIRECTOR entre for Academic Courses Anna University, Chennai-600 025

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

4.6.2 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 as per details provided in Table 2. If the number of credits earned is 1 or 2, then these credits shall not be considered for computation of CGPA. However, it shall be recorded in the grade sheet. During summer the student is allowed to undergo a maximum of 6 weeks Industrial Training / Internship. In such cases, Industrial Training / Internship need to be undergone continuously from one organization only. If the student earns three credits in Industrial Training / Internship, then he/she may optionally drop one Professional Elective within 15 days of the commencement of the semester.

Credits
1
2
3

Table 2: Training period and assigned credits

### 4.7 Value Added Courses

- 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 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 Departmental Consultative Committee concerned.
- Students shall be allowed to take these courses offered in other Departments also, but with the permission of the Head of the Department of student and Head of the department 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

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 DCC and 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 DCC.

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.

SI. No.	No. of Weeks	No. of Credits
1.	4	1
2.	8	2
3.	12	3
4.	16	4

#### Table 3: Duration of the course and Number of credits

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

Letter Grade	Marks
0	90-100
A+	80-89
A	70-79
B+	60-69
В	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 DCC 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) (a) 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 DCC 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 Self Study Courses

- 4.9.1 Students may be permitted to credit atmost one Self Study course with the approval of Departmental Consultative Committee and Centre for Academic Courses.
- 4.9.2 The Department / Centre / Division may offer self study courses. The purpose of the course is to permit the student to study a course / 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 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 before the

DIRECTOR Centre for Academic Courses Anna University, Chennai-600 025

commencement of the semester. The self study course of 3 credits can be considered as one elective course. One Faculty member approved by the Head of the Department shall be responsible for the periodic monitoring and evaluation of the course.

#### 4.10 Medium of Instruction

The medium of instruction is English for all courses, examinations, seminar presentations and project / thesis / dissertation reports.

### 5. DURATION OF THE PROGRAMMES

- 5.1 A student is normally expected to complete the M.Sc (Integrated) Programme in **5** years (**10** Semesters) but in any case not more than **10** years (**20** 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 he/she may be eligible for the award of degree (vide clause 14).
- 5.4 The curriculum of programme shall be so designed that the minimum prescribed credits required for the award of the degree shall lie within the limits of **215 225**.

### 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 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.
- 6.2.1 Each student on admission shall register for **all the courses prescribed in the curriculum** in the student's **first Semester of study**.
- 6.2.2 The enrollment for all the courses from the Semesters II 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 10 working days after the commencement of the concerned semester and complete the registration process duly authorized by the Course Instructor within 30 days from the commencement of concerned semester. The



courses approved by the course instructor shall be final and would be considered for attendance, grades and calculation of CGPA and no changes shall be made thereafter.

6.2.3 A student who has passed all the courses prescribed in the curriculum for the award of the degree shall not be permitted to re-enroll to improve the student's marks in a course or the aggregate marks / CGPA.

### 6.3 MINIMUM CREDIT REQUIREMENTS TO REGISTER FOR PROJECT WORK

The student shall register for industrial project in the seventh semester in the case of M.Sc. Computer Science and M.Sc Information Technology programmes. In the case of M.Sc. Electronic Media the student shall register for the internship in the eighth semester. The student of all the three above programmes shall register for project work in the tenth semester. However, if a student has not earned the minimum number of credits as specified in Table 5, he may be permitted to register for the industrial project / internship / project work as and when the student earns the minimum number of credits.

PROGRAMME	SEMESTER	MINIMUM NO. OF CREDITS TO BE EARNED
M.Sc. (Computer Science)	VII	90
M.Sc. (Computer Science)	Х	130
M.Sc. (Information Technology)	VII	90
M.Sc. (Information Technology)	X	130
M.Sc. (Electronic Media)	VIII	90
M.Sc. (Electronic Media)	X	130

 Table 5: Minimum Credits to Register for Project Work

6.3.1 If the student has not earned the requisite minimum credits, the student cannot enroll for the Project work. In such a case, the student can enroll for the Project work in the subsequent semester, only after earning the minimum credits specified.

### 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. From the II to Final semesters, the student has the option of registering for additional courses or dropping existing courses in a semester. The total number of credits that a student can add or drop in a semester is limited to 8, subject to a maximum of 2 courses. Maximum number of credits enrolled in a semester (including Shortage of Attendance (SA)) shall not exceed 33.
- 6.4.2 If the student wishes to earn more than the total number of credits prescribed in the curriculum of the student's programme within the minimum duration of the programme, then

DIRECTOR entre for Academic Courses Anna University, Chennai-600 025

he/she can enroll for such additional courses in any programme with the permission of Head of the Department to which student belongs and Head of the Department in which the course is offered of by paying the examination fee. The credits earned will be neither considered for the computation of CGPA nor for the classification of the degree. The courses successfully completed will be printed in the grade sheet, however if there is shortage of attendance or failure, it shall neither be reflected in the grade sheet nor be considered for classification. Maximum number of credits enrolled in a semester (including SA) shall not exceed 33.

### 6.5 Redoing a Course

Redoing a course means reregistering for a course, attending all classes, fulfilling the attendance requirements as per clause 7, earning fresh Continuous Assessment marks and appearing for End Semester Examinations. A student has to redo a course in the following conditions.

- 6.5.1 If a student is prevented from writing end semester examination of any core course due to lack of attendance, the student has to register for that course again when offered next and redo the course.
- 6.5.2 If a student is prevented from writing the end semester examination of any professional/open elective course due to lack of attendance, the student can opt to register for the same course again when offered next and redo the course, or he/she can opt to register for a different professional/open elective course when it is offered, attend classes, fulfill the attendance requirements as per clause 7, secure Continuous Assessment marks and appear for End Semester Examinations.
- 6.5.3 If the course in which the student fails to secure a pass is a professional / open elective course, then the student can opt for a different professional/ open elective course, register for the same when it is offered, attend classes, fulfill the attendance requirements as per clause 7, secure Continuous Assessment marks and appear for End Semester Examinations.
- 6.5.4 The student who fails in Seminar / Internship / Career Development Skills / Professional Practices / Case Study and Industrial / Practical Training shall register for the same in the subsequent semester and redo the course. In this case, the student shall attend the classes and fulfill the attendance requirements as per clause 7 and earn continuous assessment marks.
- 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.

DIRECTOR entre for Academic Courses Anna University, Chennai-600 025

- 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 of 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. The HOD shall inform the course instructor to provide necessary attendance at the end of semester before finalizing attendance. Producing such documents while finalizing attendance at the end of semester shall not be accepted.
- 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 redo the course when it is offered next as per Clause 6.5. If the course in which the student has been prevented is a professional/ open elective, the student can opt to redo the same course or opt for different professional/ open elective course as per Clause 6.5.2.
- 7.5 If a student has shortage of attendance in all the registered courses, he/she would not be permitted to move to higher semester and has to repeat the current semester in the subsequent year.
- 7.6 In the case of reappearance (Arrear) registration for a course, 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.
- 7.7 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

DIRECTOR Centre for Academic Courses Anna University, Chennai-600 025

students in registration and reappearance (Arrear) registration of courses, 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 number of students assigned to a faculty advisor will be decided by the Head of the Department. However, it shall not exceed 30 per faculty advisor.

The responsibilities of the faculty advisor shall be:

- To inform the interpretation of Regulations to the students and their rights and duties.
- To inform code of conduct to be maintained in the campus and disciplinary actions.
- 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 monitor the academic and general performance of the students including attendance and to counsel them accordingly.
- To collect and maintain the academic and co-curricular records of the students.
- To facilitate and collect students feedback about the course and course instructor, and the course and programme's exit survey.
- To provide all the details of academic including feedback, training, scholarship, placement and co-curricular and extra-curricular activities of the students to the University through HOD.

### 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 committee shall be constituted by the Director Academic courses within 15 days from the commencement of the semester.

The first meeting of the Common Course Committee shall be held within fifteen days from the date of formation of the committee. The lesson plan, books and references to be followed shall be decided at the first meeting. Two or three subsequent meetings in a semester may be held at suitable intervals.

In addition, the "Common Course Committee" 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 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.

DIRECTOR entre for Academic Courses Anna University, Chennai-600 025

The common course committee shall meet to decide the multiplication factor for the respective batch of students, if required and they shall be applied and entered in ACOE portal. The minutes in this regard shall be sent to all the concerned HODs and ACOE.

### 9.2 CLASS COMMITTEE

"Class Committee" comprises of all teachers handling courses of a particular semester and two student representatives (preferably one male and one female student) from the programme concerned. One of the above teachers, nominated by the Head of the Department shall act as class advisor and the committee shall be constituted by the HoD within 10 days from the commencement of classes. The class advisor will coordinate the activities of this committee. The class advisor, faculty advisor and HOD will attend the meeting and class advisor shall prepare the minutes of the meeting, which will be approved by the HOD. The copy of the minutes shall be displayed in the notice board within one week from the date of meeting. The functions of this committee are as follows:

The first meeting of the Class Committee shall be held within 10 days from the date of formation of the committee where the enrollment of the courses including add and drop of the courses will be finalized. 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.

After the completion of the semester examination and evaluation process the course instructor shall keep the record of marks and grades earned by the students for the computation of CO and PO attainments.

### 10. ASSESSMENT PROCEDURES FOR AWARDING MARKS

All M.Sc (5year Integrated) 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, Theory Courses with Laboratory Component 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. The evaluation shall be based on Outcome Based Education (OBE). The weightage for the continuous assessment and end semester examination is given in the table below.

DIRECTOR Centre for Academic Courses Anna University, Chennai-600 025

(i.e.) Each course shall be evaluated for a maximum of 100 marks as shown in Table 6:

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

 Table 6: Weightage of Marks for Continuous Assessment and End-Semester

 Examination.

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 nine 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 40 and the end semester examination carries 60 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 a mandatory requirement for passing the course and every student should appear for the examination for theory, laboratory, laboratory integrated theory courses and project work. The marks will be awarded and entered in ACOE portal for individual components of continuous assessments and end semester examination(s) (theory and laboratory separately in the case of theory courses with laboratory courses, wherever applicable).

Continuous Assessment comprises of two written test based assessments each carrying 40% weightage of marks and an activity based assessment (Individual Assignment/Case study / Seminar / Mini project/Quiz/Simulation) with 20% weightage of marks conducted by the course instructor, as shown in Table 7. The total percentage of marks obtained in all

DIRECTOR Centre for Academic Courses Anna University, Chennai-600 025

assessments put together is 100 and shall be proportionately reduced for 40% of marks and rounded to the nearest integer.

Assessment 1	Assessment 2	Individual Assignment / Case Study/ Seminar/Mini Project/ Quiz / Simulation	Total*
40%	40%	20%	100%

Table 7: Weightage of Marks for Continuous Assessment

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

One assessment test 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 on 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, only one Reassessment may be given at the end of the semester after getting approval from the Head of the Department by the concerned course instructor.

# 10.2 ASSESSMENT FOR LABORATORY COURSES

For Laboratory Courses out of 100 marks, the maximum marks for Continuous Assessment is fixed as 60 and the End Semester Examination carries 40 marks.

The maximum marks for Continuous 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 midterm test. The criteria for arriving at the Continuous Assessment marks of 60 is as follows: For successful completion of all the prescribed experiments done in the Laboratory 75% of marks shall be awarded and 25% marks shall be awarded for the midterm test, as shown in Table 8. The total marks earned by the student in continuous assessments shall be converted into a maximum of 60 marks and rounded to the nearest integer.

# Table 8: Weightage of Marks for Continuous Assessment

Continuous Assessmen (100 %)*	t
Evaluation of Laboratory Observation, Record	Mid-term Test
75%	25%

\* Total percentage of Continuous assessment marks shall be converted into 60 marks.

The end semester examination shall be for 40 marks and shall include Viva-Voce also as a part of it.

DIRECTOR entre for Academic Courses Anna University, Chennai-600 025

The End semester examinations for Laboratory courses will be of 3 hours duration and shall normally be conducted after the theory End Semester Examinations but within 7 days from the conduct of last theory examination for that semester.

# 10.3 ASSESSMENT FOR THEORY COURSES WITH LABORATORY COMPONENT

Weightage of continuous assessment and end semester examination marks will be 50% each. The distribution of marks for the theory and laboratory components in the continuous assessments and end semester examination for different types of courses are provided in the Table 9.

L	т	Р	С	Asses	inuous ssment eory Il 25%)	Continuous Assessment Laboratory (Total 25%)	End Semester Examination (50%)
1	0	2	2	Test 1*	Test 2*	Experiment and Midterm Test	Laboratory only (50%)
1	0	4	3	Test 1	Test 2	Experiment and Midterm Test	Laboratory only (50%)
2	0	2	3	Test 1	Test 2	Experiment and Midterm Test	Theory only (50%)
3	0	2	4	Test 1	Test 2	Experiment and Midterm Test	Theory only (50%)
2	0	4	4	Test 1	Test 2	Experiment and Midterm Test	Theory (25%) and Laboratory (25%)
3	0	4	5	Test 1	Test 2	Experiment and Midterm Test	Theory (25%) and Laboratory (25%)

Table 9: Weightage of Marks for Continuous Assessment

The procedure for the conduct of continuous assessments for Laboratory component is as per the clause 10.2.

\*Test 1 and Test 2 for theory are written tests.

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

# 10.4 ASSESSMENT FOR PROJECT WORK

The evaluation of Project Work for M.Sc. (5 years Integrated) shall be done independently in the respective semesters and marks shall be allotted as per the weightages given in Clause 10.4.1.

10.4.1 The Project work shall be evaluated for a maximum of 100 marks of which 60 marks will be through internal assessment. There should be three reviews for each Project (VII/VIII semester project and X semester project) to be conducted separately with Internals 60 marks and External 40 marks. The marks are to be distributed as detailed shown in Table 10.

DIRECTOR entre for Academic Courses Anna University, Chennai-600 025

Table	10:	Continuous	Assessment	and	<b>End-Semester</b>	Examinations	Marks	for
		Project Worl	ĸ					

Project work	Internal (60 Marks) External (40 Marks)						
	Review I	Review II	Review III	Project Ev 20	aluation	Viva – (20 Ma	
				Supervisor	External	External	Internal
Project work	10	20	30	10	10	10	10

- 10.4.2 There shall be three 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 the review committee consisting of supervisor, expert member from the department and a project co-ordinator from another department. The total marks obtained in the three assessments shall be reduced to 60 marks and rounded to the nearest integer. The students are permitted to do interdisciplinary project work with supervisor/co-supervisor from other department relevant to the field of project work.
- 10.4.3 The Project Report prepared according to approved guidelines as given by Director, Academic Courses and duly signed by the supervisor(s), Project Co-ordinator and the Head of the Department and shall be submitted to the Head of the Department.
- 10.4.4 The evaluation of the Project work will be based on the project report submitted in each of the VII / VIII semester and X semester respectively and a Viva-Voce Examination shall be conducted by a team consisting of the supervisor, internal examiner (other than the supervisor) and External Examiner. The Project Co-ordinator shall act as Internal Examiner. The external examiner shall be appointed by the Chairperson of the respective Faculty from the panel of examiners submitted by the HOD.
- 10.4.5 If the student fails to obtain 50% of the internal assessment marks in the Project work (VII/VIII semester and X semester respectively) of M.Sc. (5 years Integrated), the student will not be permitted to submit the report for that particular semester and has to re-enroll for the same in the subsequent semester.
- 10.4.6 The deadline for submission of final Project Report is 30 calendar days from the last working day of the semester in which project / thesis / dissertation is done.
- 10.4.7 If a student fails in the end semester examinations of Project Work, he/she has to resubmit the Project Report within 30 days from the date of declaration of the results. The resubmission of a project report and subsequent viva-voce examination will be considered as reappearance with payment of exam fee. For this purpose the same Internal and External examiners shall evaluate the resubmitted report.

DIRECTOR entre for Academic Courses Anna University, Chennai-600 025

- 10.4.8 If a student has submitted the project report but did not appear for the viva-voce examination, it will be considered as fail and he/she will be permitted for reappearance in viva-voce examination, for Project work within 30 days from the date of declaration of result. Subsequent viva-voce examination will be considered as reappearance with payment of exam fee.
- 10.4.9 If a student fails to submit the project report on or before the specified deadline, student is deemed to have failed in the Project work and shall re-enroll for the same in a subsequent (next) semester.
- 10.4.10 A copy of the approved project report after the successful completion of viva-voice examinations shall be kept in the library of the college / institution.

### 10.5 ASSESSMENT FOR SEMINAR / PROFESSIONAL PRACTICES / CASE STUDY

The seminar / Case study 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 consisting of one co-ordinator and two members 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%).

### 10.6 ASSESSMENT FOR INDUSTRIAL / PRACTICAL TRAINING / INTERNSHIP

- 10.6.1 Practical training / Industrial Attachment / Summer Project if specified in the Curriculum shall not exceed the maximum duration of 4 weeks and should be organized by the Head of the Department for every student.
- 10.6.2 The Industrial / Practical Training shall carry 100 marks and shall be evaluated through continuous assessment only. At the end of Industrial / Practical training / internship / Summer Project, the student shall submit a brief report on the training undergone and a certificate from the organization concerned. The evaluation will be made based on this report and a Viva-Voce Examination, conducted internally by a three member Departmental Committee consisting of one co-ordinator and two members 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.

Attested

DIRECTOR entre for Academic Courses Anna University, Chennai-600 025

## 10.7 ASSESSMENT FOR VALUE ADDED COURSES

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. The Head of the Department may identify a faculty member as coordinator for the course. A committee consisting of faculty member handling the course, coordinator and a senior faculty member nominated by the Head of the Department shall monitor the evaluation process.

### 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 and End Semester Examination. The evaluation methodology shall be the same as that of a theory course (vide clause. 10.1)

#### 10.9 CONDUCT OF ACADEMIC AUDIT BY THE DEPARTMENT

Every department shall strive for a better performance of the students by conducting the continuous assessments as mentioned in Clause 10 and that is followed by the end semester examination, as the case may be.

The Head of the Department shall arrange to conduct the Academic Audit once in every year for all the courses conducted in the respective semesters through external expert(s) approved by the Chairperson of Faculty.

- In order to ensure the above, Academic Audit is to be done for every course taught during the semester.
- For the continuous assessments conducted for each course (as per details provided in Clause 10), the academic records shall be maintained for the activity based evaluation and assessment test question paper and answer script. Report of industrial training / internship shall also be maintained, if applicable. For laboratory courses the students' record and course coordinator's system of evaluation shall be maintained. Further, the attendance of all students shall be maintained as a record.
- The ACOE (UDs) shall facilitate the conduct of academic audit process including the end semester examination question paper and answer scripts.
- The academic audit shall verify all the academic records pertaining to the Regulation in force, the attendance and assessment record, CO, PO attainment records, student's and course coordinators feedback of the courses, and the overall teaching-learning process based on Bloom's taxonomy. Action plan based on audit implementation for continuous improvement. Academic documents of PG degree programmes should be available with the department/faculty for 5 years.

DIRECTOR entre for Academic Courses Anna University, Chennai-600 025

### 11. PASSING REQUIREMENTS

- 11.1 A candidate who secures not less than 50% of total marks prescribed for the courses (Internal Assessment + End semester examination) with a minimum of 45% of the marks prescribed for the end-semester Examination in theory, theory with practical components (45% individually in theory and laboratory) and practical courses (including Project work), shall be declared to have passed in the Examination.
- 11.2 If a student fails to secure a pass in a theory course (except electives)/ laboratory courses, 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 11.1, 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.
- 11.3 The passing requirement for the courses which are assessed only through continuous assessment (EEC courses except project work).

#### 11.4 End semester valuation clarification day

In a regular semester a valuation clarification day for theory courses shall be conducted only for those students who are appearing in the end semester examination as their first attempt Clarification day shall be conducted within 7 working days after the last held theory examination. During those 7 working days period, the laboratory end semester examinations shall be scheduled and the results of the same shall be UPLOADED within those 7 working days itself so that the completed end semester results shall be published within 15 days from the last laboratory exam.

On clarification day, the students can view their end semester answer papers in the presence of the course instructor and get any clarifications / corrections done. In cases of dispute, where the student is not satisfied with the clarifications / corrections, the matter can be referred to a committee, consisting of the Head of the Department of the courses concerned / HOD nominee, concerned course instructor and a subject expert. In case a student does not attend the valuation clarification day on the specified date, no further clarifications will be entertained. The results will be published after the end semester valuation clarification day.

For students reappearing for the theory courses, clarification day will not be provided for the subsequent attempts. However, for them open day will be conducted after the publication of results. On this day, the students are permitted to view their end semester



answer scripts on payment of prescribed fee as per the rules prescribed by ACOE. In case of dispute, the matter can be referred to a committee, consisting of the Head of the Department of the courses concerned / HOD nominee, concerned course instructor and a subject expert as per the rules prescribed by ACOE.

## 12 AWARD OF LETTER GRADES

12.1. The award of letter grades will be decided using relative/absolute grading principle. The performance of a student will be reported using letter grades, each carrying certain points as shown in Table 11.

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

Table 11: Award of Letter Grades

'U' 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.

'WD' indicates withdrawal from the course.

#### 12.1.1 Relative Grading

For those students who have passed the course (theory course / laboratory integrated theory courses and all EEC except laboratory course / Project Work Course), the relative grading shall be done provided if the strength of students who have met the passing requirements is greater than 30. The marks of those students who have passed only shall be input 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.

### 12.1.2 Absolute Grading

 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.

DIRECTOR entre for Academic Courses Anna University, Chennai-600 025

• For the Project Work / Internship and Laboratory Courses, absolute grading procedure shall be followed as given in the Table 12 irrespective of the number of students who have passed the course.

ο	A+	A	B+	В	С	U
91 - 100	81 - 90	71 - 80	61 - 70	56 - 60	50 – 55	< 50

Table 12: Grade range for absolute grading

- 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 marksheet. 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 credit course shall figure in the Mark sheet under the title 'Value Added Courses'. The other grades U, SA will not figure in the mark sheet.

# 13. GPA AND CGPA CALCULATION

- 13.1 The coordinator of the course committee (excluding the student members) shall call for a meeting of the committee after the end-semester examinations, to pass the results and forward the same to the Additional Controller of the Examinations. 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.

Attested

DIRECTOR entre for Academic Courses Anna University, Chennai-600 025



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. "U" 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 than required as per student's programme curriculum, the courses with higher grades alone will be considered for calculation of CGPA.
- 13.4 In the consolidated grade sheet the CGPA earned shall be converted into percentage of marks as follows:

Percentage of Marks = CGPA X 10.

# 14. ELIGIBILITY FOR THE AWARD OF DEGREE

- 14.1. A student shall be declared to be eligible for the award of the M.Sc. (5 year Integrated) Degree provided the student has
  - i. Successfully gained the required number of total credits as specified in the curriculum corresponding to 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 10 semesters within a maximum period of 10 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.
  - 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:

DIRECTOR ntre for Academic Courses nna University, Chennai-600 025

- Should have passed the examination in all the courses of all the ten semesters in student's First Appearance within six 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 attending end semester examination 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 ten semesters within six 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 6.50.

# 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 M.Sc (5year integrated) 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 10 working days before/after 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 10 working days notice, applications for withdrawal for special cases under extraordinary conditions will be considered on the merit of the case.

DIRECTOR Centre for Academic Courses Anna University, Chennai-600 025

- 15.4 If a student withdraws a course or courses from writing end semester examinations, he/she shall register the same in the subsequent semester and write the end semester examination(s).
- 15.5 Withdrawal shall not be considered as an appearance for deciding the eligibility of a student for First Class with Distinction.
- 15.6 Withdrawal is permitted for the end semester examinations in the final semester only if the period of study the student concerned does not exceed 6 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 fixed period of one year as a single break in the entire course of study.
- 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 I assessment period. The application (downloaded from website) duly filled by the student shall be submitted through the Head of the Department.
- 16.3 Notwithstanding the requirement of mandatory first assessment period, applications for break of study for special cases under extraordinary conditions will be considered on the merit of the case. The student shall apply to the Director, Academic Courses through the Head of the Department.
- 16.4 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.
- 16.4.1 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.
- 16.5 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).

Attested

DIRECTOR entre for Academic Courses Anna University, Chennai-600 025

- 16.6 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 Head of the Department before the end of the semester in which the student has taken break of study.
- 16.7 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.
- 16.8 If a student in Full Time mode wants to take up job / start-up / entrepreneurship during the period of study he/she shall apply for authorised break of study for one year. The candidate shall take up the assignment only after getting approval of the same by The Director, Centre for Academic Courses.

### 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.

DIRECTOR entre for Academic Courses Anna University, Chennai-600 025

## 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.	NAME OF THE PROGRAMME	CREDITS TO
NO.		BE EARNED
FACUL		
i	M.Sc (5 year Integrated ) Computer Science	221
ii	M.Sc (5 year Integrated ) Information Technology	221
iii	M.Sc (5 year Integrated ) Electronic Media	222



Attested

DIRECTOR Centre for Academic Courses Anna University, Chennai-600 025