ERODE SENGUNTHAR ENGINEERING COLLEGE

(An Autonomous Institution, Affiliated to Anna University)

(Approved by AICTE, New Delhi,& Accredited by NAAC & National Board of Accreditation (NBA), New Delhi.)

PERUNDURAI, ERODE 638 057

REGULATIONS FOR PG DEGREE PROGRAMME (For MCA Programme)



REGULATIONS - 2019

Choice Based Credit System (CBCS)

(For the students admitted during the Academic year 2019 – 20 and onwards)

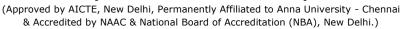
Regulations 2019 have been prepared in accordance with the guidelines given by the University Grants Commission, All India Council for Technical Education and affiliating University with features of the Choice Based Credit System (CBCS). The "Regulations 2019" is applicable to the Students admitted to the Master of Computer Application (MCA) Degree Programmes of the Institution in the academic year 2019-20 onwards.

The regulations hereunder are subjected to amendments as may be decided by the Academic Council of the Institution from time to time. Any or all such amendments will be effective from such date and to such batches of students (including those already in the middle of the programme) as may be decided by the Academic Council.



ERODE SENGUNTHAR ENGINEERING COLLEGE

(An Autonomous Institution)





PERUNDURAI, ERODE 638 057.

DEPARTMENT OF COMPUTER APPLICATIONS

MASTER OF COMPUTER APPLICATIONS (MCA)

REGULATIONS 2019

CHOICE BASED CREDIT SYSTEM

(For students admitted from the academic year 2019-2020)

NOTE: The regulations hereunder are subjected to amendments as may be decided by the Academic Council of the Institute from time to time. Any or all such amendments will be effective from such date and to such batches of students (including those already in the middle of the programme) as may be decided by the Academic Council.

1.DEFINITIONS AND NOMENCLATURE

In this Regulation, unless the context otherwise specifies:

- "Programme" means M.C.A., Degree Programme.
- "Course" means a Theory or Practical course that is normally studied in a semester.
- "Head of the Institution" means the Principal of the College who is the responsible for all academic activities.
- "Head of the Department" means Head of the Department concerned.
- "Chairman" means Head of the Department, Heading the BoS activities.
- "College" means Erode Sengunthar Engineering College, Perundurai.
- "Credit" means a numerical value allocated to each course to describe the candidate's workload required per week.
- "Grade" means the letter grade assigned to each course based on the marks range specified.
- "Grade point" means a numerical value (0 to 10) allocated based on the grade assigned to each course.
- "Controller of Examinations" means authorized person who is responsible for examinations of the college.

2. ADMISSION PROCRDURE

Candidates for admission to the first semester of the Post-Graduate Degree Programme shall be required to have passed an appropriate Under-Graduate Degree Examination of Anna University or equivalent as specified under qualification for admission as per the Tamil Nadu Common Admission (TANCA) criteria from time to time. Candidate should hold a bachelor's degree with a minimum of 3 years' duration in BCA, B.Sc. (Computer Science / Information Technology) with Mathematics in 10 + 2 or at the graduate level and should attain a minimum 50% and 45% for reserved category in qualifying degree examination.

3. DURATION OF THE PROGRAMME

3.1 Minimum Duration:

The programme will lead to the Degree of Master of Computer Application (M.C.A.) of the Anna University, Chennai and extend over a period of three academic years consisting of six semesters.

3.2 Maximum Duration:

The student shall complete all the passing requirements of the M. C. A. degree programme within a maximum period of 6 years / 12 semesters, these periods are being reckoned from the commencement of the semester to which the student was first admitted.

4 STRUCTURE OF THE PROGRAMME

4.1 Categorization of Courses

Every Post Graduate Degree Programme will have a curriculum with syllabi consisting of theory and practical courses that shall be categorized as follows:

- Foundation Courses (FC) may include Mathematics or other basic courses.
- Professional Core (PC) courses include the core courses relevant to the chosen specialization/branch.
- Professional Elective (PE) courses include the elective courses relevant to the chosen Specialization / branch.
- Employability Enhancement Courses (EEC) includes Project Work and/or Internship,
 Seminar, Professional Practices, Summer Project, Case Study and Industrial / Practical Training.

4.2 Number of courses per semester

Curriculum of a semester shall normally have a blend of 5 Lecture Courses and 3 Laboratory Courses. In addition, Employability Enhancement Course(s) may also be included. Each course may have credits assigned as per Clause 4.3.

4.3 Credit Assignment

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

Contact period per week	Credits
1 Lecture Period	1
1 Tutorial Periods	1
1 Practical Periods (Laboratory / Seminar / Project Work / etc.)	0.5

4.4 Range of Credits

For the award of the degree, the regular student shall earn a minimum number of total credit is 118, the lateral entry student shall earn a minimum number of total credit is 77 prescribed by the Board of Studies and by passing the prescribed courses of study.

4.5 Industrial Training / Internship

- **4.5.1.** The students may undergo Industrial training for a period 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 / Reputed firms satisfying prescribed qualifications set by the department (after due approval from the HoD) for the period approved by the HOD during summer / winter vacation, in lieu of Industrial Training.
- **4.5.2.** If Industrial Training / Internship (Industry for internship should be approved by the department) 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. In such cases, Industrial Training / Internship need to be undergone continuously from one organization only. However the number of credits earned shall not be considered for computation of CGPA. The student is allowed to undergo a maximum of 6 weeks Industrial Training / Internship during the entire duration of study.

DURATION OF TRAINING / INTERNSHIP	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, preferably from the second year of the programme. The Heads of Departments shall ensure that necessary arrangements are made in this regard.

4.7 Online Courses / Self Study Courses

- **4.7.1**. Students may be permitted to enroll for one Online Course or Self Study Course with the approval of the respective Boards of Studies.
- **4.7.2.** The student can opt for Self Study Course from the list of Professional Electives provided, the student does not have any standing arrears and the CGPA should be 7.5 and above. The purpose of the course is to permit the student to study a course of the student's choice. The students shall study on their own under the guidance of a faculty member. No formal lectures need to be delivered. One Faculty member assigned by the HOD shall be responsible for the periodic monitoring and assessment of the student in that course.
- **4.7.3**. The Self Study Course or Online Course of 3 credits can be considered instead of one Professional Elective Course.

4.8 Medium of Instruction

The medium of instruction is ENGLISH for all Courses, Examinations, Seminar Presentations and Project / Thesis / Dissertation Reports.

5. COURSE ENROLMENT AND REGISTRATION

- (i) Each student, on admission shall be assigned to a Faculty Adviser who shall advice 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.
- (ii) Every student shall enroll for the course(s) of the succeeding semester in the current semester. However, the student shall confirm the enrolment by registering for the courses within the first five working days after the commencement of the concerned semester.
- (iii) 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.
- (iv)Each student on admission shall register for all the courses prescribed in the curriculum in the student's first Semester of study.
- (v) The enrolment for all the courses of the Semester II will commence 10 working days prior to the last working day of Semester I. The student shall confirm the enrolment by registering for the courses within the first five working days after the commencement of the Semester II. However, the student is allowed to register the course for which the student has not enrolled, if these are the courses in which the student has failed.
- (vi)The enrolment for the courses of the III Semester to Final Semester will commence 10 working days prior to the last working day of the preceding semester. If the student wishes, the student may drop or add courses (Ref. Section 5.1) within

five working days after the commencement of the concerned semester and complete the registration process duly authorized by the Faculty-in-Charge of the Programme. 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.

(vii) 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.

5.1 Flexibility to add or drop courses

- (i) 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, the student is permitted to earn more than the total number of credits prescribed in the curriculum of the student's programme.
- (ii) From the second to final semesters, the student has the option of registering for additional courses or dropping existing courses. Total number of credits of such courses cannot exceed 6. However the maximum number of credits the student can register in a particular semester cannot exceed 30 credits (including courses for which the student has done reappearance registration Ref. Section 5.2)
- (iii) The student shall register for the Project work in the sixth semester.

5.2 Reappearance Registration

- 5.2.1. If a student fails in a theory/practical course, the student shall do reappearance registration for that course in the subsequent semester and attend end semester examination.
- 5.2.2. The continuous assessment marks obtained by the Student in the first attempt for theory courses shall be retained and considered valid for subsequent attempts also. However, from the fourth attempt onwards the marks scored in the semester examinations alone shall be considered.
- 5.2.3. If the theory course, in which the student has failed, is a Professional Elective or an Open Elective, the student may register for the same or any other Professional Elective or Open Elective Course respectively in the subsequent semesters. Such changes can be done only with due approval by the Head of the Department.
- 5.2.4. The student who fails in Project work (Mini Project /Project phase-I/II) / Seminar other than Practical Courses shall register for the same in the subsequent Semester and reappear for the End Semester Examinations.

5.2.5. If a student is prevented from writing end semester examination of a course due to lack of attendance, the student has to re-enroll and register for that course again, when offered next. However, if the overall average attendance of all the courses is below 65%, the student has to rejoin the programme in the next academic year after getting readmission order from the DOTE/University. The student shall attend the classes and fulfill the attendance requirements as per clause 7, earn continuous assessment marks and appear for the end semester examinations. If the course, in which the student has lack of attendance, is a Professional Elective, the student may register for the same or any other Professional Elective Course in the subsequent semesters

6. REQUIREMENTS FOR APPEARING FOR THE END SEMESTER EXAMINATION OF A COURSE

A student who has fulfilled the following conditions (vide Clause 6.1 and 6.2) shall be deemed to have satisfied the attendance requirements for appearing for end semester examination of a particular Course.

- 6.1. 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.
- 6.2.(i) If a student secures not less than 65% and less than 75% attendance in any Course in the Current Semester due to medical reasons (hospitalization / accident / specific illness) , the student shall apply for condonation with a prescribed condonation fee payable per course. The condonation should be decided by a committee consisting of the Head of the Department of the student, Programme coordinator of the student, Student Counsellor, Faculty In charge of the course and an Assistant Controller of Examinations. The committee scrutinizes the genuinity and conduct of the student and recommend it to the Principal to grant of condonation after satisfying the requirements specified in clause 6.2 (i). In such cases, his / her conduct has been certified to be satisfactory by the Faculty Advisor / Student Counsellor concerned and the Head of the Department.
- 6.2. (ii) A student, who could not satisfy the attendance requirements as per clause 6.1 but has secured 65% and above in a course or courses due to an authorized outside activity, may be permitted to appear for the examinations after the approval of the Principal. The relevant certificates, with the approval of the HoD and Principal, are to be submitted to the Office of the CoE.

A student shall be able to avail this Provision only twice during the entire duration of the degree programme.

- 6.2.1 Student's progress is satisfactory.
- 6.2.2 Student's conduct is satisfactory.
- 6.3. A student shall normally be permitted to appear for the End Semester Examination of the Course if the student has satisfied the attendance requirements (vide Clause 6.1 6.2) and has registered for examination of the Courses in that semester by paying the prescribed fee.
- 6.4. Students who do not satisfy Clause 6.1 and 6.2 and who secures 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
- 6.5. However, if the overall average attendance of all the courses is below 65%, the student has to rejoin the programme in the next academic year after getting readmission order from the DOTE/University.
- 6.6. 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.

7. STUDENT COUNSELLOR / FACULTY ADVISER

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

8. COURSE COMMITTEES

8.1. 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 formation of the committee. 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.

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. Wherever feasible, the common course committee shall prepare a common question paper for the continuous assessment tests also.

8.2. Multiple Courses Committee

Multiple Courses Committee comprises of all teachers handling courses of a particular semester, including common course teachers and two student representatives from the course concerned. One of the above teachers, nominated by the Head of the Department shall coordinate the activities of this committee. The functions of this committee are as follows:

The first meeting of the Multiple Courses Committee shall be held within fifteen days from the date of formation of the committee. 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.

8.3. Overall Monitoring Committee

In addition, there shall be an overall monitoring committee for each semester of a programme, which comprises of (i) the Head of the Department (convener), (ii) the Faculty Advisors of the programme and (iii) Multiple Course Coordinator. This overall monitoring committee shall meet periodically to discuss academic related matters, progress and status of the students of the semester concerned. The overall monitoring committee can also invite some of the students for any of the committee meetings if necessary.

9. ASSESSMENT PROCEDURES FOR AWARDING MARKS

The M.C.A. Programme consists of Theory Courses, Laboratory Courses and Employability Enhancement Courses. Employability Enhancement Courses include Project Work, Seminar, 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.

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

S.No.	Category of Course	Continuous	End-Semester	
3.110.	category or course	Assessments	Examinations	
4	Theory Courses/ Theory Courses	40 Mayles	CO Marilea	
1	with Laboratory Component	40 Marks	60 Marks	
2	Laboratory Courses	60 Marks	40 Marks	
3	Project Work	60 Marks	40 Marks	
4	Online Courses/Self Study Courses	100 Marks		
4	(Optional)	100 Marks	-	
	All EEC Courses			
5	(Except Laboratory Courses and	100 Marks	-	
	Project Work)			
_	Value Added One Credit Course *	100 Mayles	-	
6	(Optional)	100 Marks		

* Value Added Courses - not included for CGPA calculation.

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 after the approval from the Principal (for four years). The records of attendance and assessment of both current and previous semesters should be available for inspection.

9.1. 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 End Semester Exams for theory courses will be of 3 hours duration and shall normally be conducted for a maximum of 100 marks.

End semester Examination is mandatory requirement for passing the course and every student should appear for the examination for theory, theory course with laboratory,

laboratory courses and project work.

Continuous Assessments are to be arrived on the basis of students' performance in tests, assignments and attendance. There shall be three assessments of equal weightage, conducted by the course instructor / coordinator / department. The total marks obtained in the **assessments** put together shall be reduced to 40 marks and rounded to the nearest integer.

In case student misses the assessment due medical а to reasons (hospitalization/accident/specific illness) due participation or to in the College/University/State/National/ International level Sports events with prior permission from the HOD, a Reassessment (which means that only one RETEST is allowed) may be given at the end of the semester after getting approval from the Head of the Department through the concerned course instructor.

To arrive at the Continuous Assessment Marks, the following guidelines are to be followed:

SI.No.	Category Details	CA Marks
i.	Test (3 No.) {each test is to be conducted for 50 Marks}	30 Marks
ii.	Assignment (2 No.)	5 Marks
iii.	Attendance Percentage (75 to 79 : 1 Mark , 80 to 84 : 2 Marks ,85 to 89 : 3 Marks , 90 to 94 : 4 Marks ,95 to 100 : 5 Marks)	5 Marks
	TOTAL	40 Marks

If a student fails in a theory course, the student shall do reappearance registration for that course in the subsequent semester (vide clause 5.1). The student can optionally earn Continuous Assessment marks and attend end semester examination, and in such a case latest seasonal marks will only be valid (vide clause 5.2).

9.2. 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.

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 End Semester examinations for Laboratory courses will be of 3 hours duration and shall normally be conducted for a maximum of 100 marks. The criterion for arriving at the Continuous Assessment marks of 60 is as below.

Distribution of marks for Continuous Assessment	Marks
Observation	20
Record	15
Viva – Voce	10
Model Exam	10
Attendance	05
Total Assessment	60

9.3. ASSESSMENT FOR THEORY COURSES WITH LABORATORY COMPONENT:

The maximum marks for Internal Assessment for theory courses with Laboratory component is also 40 marks. To arrive the Continuous Assessment Mark, the following guidelines are to be followed.

Assessment for Theory (T)	Assessment for Laboratory (L)	Assignment (1 No.)	Attendance	End Semester
20 Marks (T)	10 Marks (L)	5 Marks	5 Marks	60 (T)
(Two assessments)	(One assessment)			00 (1)

9.4. ASSESSMENT FOR PROJECT WORK:

Absolute grading is adopted for the evaluation of Project Work and shall be done independently in the respective semesters and marks shall be allotted as per the weightage given in Clause 9.4.1.

9.4.1. The Project work shall be evaluated for a maximum of 100 marks of which 60 marks will be through Continuous Assessment. There shall be three reviews for each phase to be conducted separately with Continuous Assessment of 60 marks and External 40 marks. The marks are to be distributed as detailed below.

Project Work (Continuous Assessment marks)

Review I	ew I Review II Revi		Review II			
(20 Marks)		(20 Marks)	(20 Marks)		
Review	Guide	Review	Guide	Review	Guide	Publications

Committee		Committee		Committee		
15	5	15	5	10	5	5

The Mark distribution for End Semester Examination (Viva-Voce) will be distributed as indicated below.

End Semester Examination (40 Marks)				
Guide	Internal Examiner	External Examiner		
Internal Examiner		Project Report	Viva – Voce	
10 Marks	10 Marks	10 Marks	10 Marks	

- **9.4.2.** There shall be three assessments 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, project coordinator and another faculty member from the Department for each branch of study.
- **9.4.3.** The Project Report shall be prepared according to approved guidelines as given by the Institution and duly signed by the Supervisor, Programme Co-ordinator and the Head of the Department.
- **9.4.4.** The evaluation of the Project work will be based on the project report submitted a Viva-Voce Examination by a team consisting of the supervisor and External Examiner. The external examiner shall be appointed by the Office of the Controller of Examinations from the panel of examiners recommended by the HOD for project evaluation
- **9.4.5.** If the student fails to obtain 50% of the continuous assessment marks in the project work, he / she will not be permitted to submit the report for that particular semester and has to re-enroll for the same in the subsequent semester.
- **9.4.6.** The Project Report / Thesis / Dissertation report / Drawings prepared according to approved guidelines and duly signed by the supervisor(s), the Programme Coordinator and the Head of the Department shall be submitted at the end of the VI semester. The last date for the submission of Thesis will be six months (maximum period) from the reopening date of VI semester. However, in exceptional cases, based on the recommendations of the Professor-incharge of the Programme, the Chairman, Academic Council can permit an extension of time not exceeding 31 days.
- **9.4.7.** 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.

9.4.8. A copy of the approved project report after the successful completion of viva-voice Examinations shall be kept in the Department library.

9.5. ASSESSMENT FOR SEMINAR /MINI PROJECT/ PROFESSIONAL PRACTICES / CASE STUDY:

The seminar /Professional Practices/Mini Project/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 Consultative Committee and for each seminar, marks can be equally apportioned. The three member committee consisting of Programme Coordinator, the Student Counsellor concerned and a Senior Faculty Member appointed by the 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%).

9.6. ASSESSMENT FOR INDUSTRIAL / PRACTICAL TRAINING / INTERNSHIP / SUMMER PROJECT

- **9.6.1**. If the student opts to attend industrial / practical training / internship / summer project which is not included in the curriculum, the total duration attending the above shall not exceed the maximum duration of 4 weeks.
- **9.6.2.** The industrial / practical training / internship / summer project 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 Consultative Committee consisting of Programme Coordinator, the Student Counsellor concerned and Senior Faculty 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 the Controller of Examinations by the head of the department. The training will appear in the list of Value Added Courses in the Grade Sheet with Credits (Additional / Extra Credits) obtained.

9.7. ASSESSMENT FOR VALUE ADDED COURSE (ONE CREDIT)

The Value Added one 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. The Consultative Committee consisting of the staff handling the course Programme 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 Performance Analysis Committee based on their relative performance.

9.8. ASSESSMENT FOR ONLINE COURSE

Students may be permitted to credit online courses (which are provided with certificate) with the approval of Board of Studies subject to a maximum of three credits. This online course of 3 credits can be considered instead of one elective course. The Departmental Consultative Committee consists of the Head of the Department, Programme Coordinator and Senior Faculty Member 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 the same may be conveyed to the Controller of Examinations 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 the Office of the Controller of Examinations. The Head of the Department may identify a faculty member as a coordinator for the course, who is responsible for evaluation of Continuous Assessment. The Performance Analysis Committee 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 the Institution, the credits may be transferred without End Semester Examinations and / or Continuous Assessment and grades shall be approved by the Performance Analysis Committee.

9.9. 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 9.1). The Performance Analysis Committee shall assign the grade to the students based on their relative performance.

10. PASSING REQUIREMENTS

10.1. The passing requirement for a student in a course is determined based on the marks obtained both in continuous assessment and end semester examinations. A candidate who secures not less than 50% of total marks prescribed for the course [Internal Assessment + End semester Examinations] with a minimum of 50% of the marks prescribed for the end-semester examinations, wherever applicable, shall be

declared to have successfully passed the course. This is applicable for both theory and practical courses (including project work).

- **10.1.1.** If a student fails to secure a pass in a theory course (except electives), the student shall do reappearance registration for that course in the subsequent semester. The continuous assessment marks obtained by the Student in the first attempt for theory courses shall be retained and considered valid for subsequent attempts also. However, from the fourth attempt onwards the marks scored in the semester examinations alone shall be considered.
- **10.1.2**. If the course, in which the student has failed, is an elective/ online course, the student may be permitted to register for the same or any other elective course/online course in the subsequent semesters. The student shall attend the classes, fulfill the attendance requirements and earn Continuous Assessment marks as per clause 7, if he/she opted for any other elective course (vide clause 6.6.3). However, the change of elective courses is permitted only once.
- **10.1.3**. If a student fails to secure a pass in a laboratory course, the student shall do reappearance registration for that course in the subsequent semester. The continuous assessment marks obtained by the Student in the first attempt for practical courses is valid for next two attempts only.
- **10.1.4.** If a student fails to secure a pass in project work, the student shall register for the course in the subsequent semester/when offered next and repeat the course (vide clause 6.6.4).
- **10.2.** The passing requirement for the courses which are assessed only through continuous assessment (EEC except Laboratory and project work), shall be determined based on the marks obtained in the continuous assessment.

10.2. 1.Revaluation

A Student may apply for a photocopy of the answer script of a theory examination, within a time announced from the declaration of results, on payment of a prescribed fee by submitting an application to the Controller of Examinations through the Head of the Department. The photo copy of the answer script may be valued by a faculty member who has handled the course and recommended for revaluation.

Based on the recommendation, the Student can apply for the revaluation through proper application to the Controller of Examinations. The Controller of Examinations will arrange for the revaluation and the results will be intimated to the Student through the HOD. Revaluation is permitted only for theory courses.

10.2.2. Challenging the Revaluation

Challenging the revaluation is permitted for those students who have applied for photocopy of answer script. The copy of the answer script is to be valued by a competent authority and the valued script should be submitted to the COE's office along with the prescribed fee for challenging the revaluation within 2 days after declaration of the Re-valuation results.

11. AWARD OF LETTER GRADES

For awarding the grades UGC / affiliating university guidelines is followed. It will be changed from time to time based on the guidelines of above affiliating authorities.

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

Letter Grade	Grade Points	Marks Range (M)
O (Outstanding)	10	90-100
A+ (Excellent)	9	80-89
A (Very Good)	8	70-79
B+ (Good)	7	60-69
B (Above average)	6	50-59
RA (Reappearance Registration)	0	< 50
SA (Shortage of Attendance)	0	-
W (Withdrawal)	0	-

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

'SA' denotes shortage of attendance (as per clause 6.3) and hence prevention from writing the end semester examinations. 'SA' will appear only in the result sheet.

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

If the grade W is given to course, the attendance requirement need not be satisfied.

If the grade RA is given to a core theory course, the attendance requirement need not be

satisfied, but if the grade RA is given to a Laboratory Course/ Project work / Seminar and any other EEC course, the attendance requirements should be satisfied.

For the Co-curricular activities, 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 during the second year. A satisfactory grade in the above co-curricular activities is compulsory for the award of the degree.

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

12. GPA AND CGPA CALCULATION

12.1. The Principal & Chairman of the Academic Council shall call for a Result Passing Board Members meeting after the end-semester examinations, to pass and publish the 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 (excluding value added courses) 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 (excluding value added courses), to the sum of the number of credits of all the courses in the Semester.

$$GPA/CGPA = \frac{\sum_{1}^{n} \text{Ci} * \text{GPi}}{\sum_{1}^{n} \text{Ci}}$$

Where C_i - is the Credits assigned to the Course

 $\mathbf{GP_i}$ - 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.

12.2. The credits earned through Value Added One Credit Courses shall not be considered for calculating GPA and CGPA.

12.3. If a student studies more number of Electives (PE/OE) than required as per the programme of study, the Courses with higher grades alone will be considered for calculation of CGPA.

13. ELIGIBILITY FOR THE AWARD OF DEGREE

A student will be declared to have qualified for the award of the Degree of Master of Computer Application provided:

- 13.1 He / She have successfully completed the course requirements and have passed all the prescribed courses of study as per the programme structure.
- 13.2 No disciplinary action is pending against the student.

14. CLASSIFICATION OF THE DEGREE AWARDED

14.1 First Class with Distinction

A student who qualifies for the award of degree (Ref. Section 12) having passed all the courses of all the semesters at the first opportunity within six consecutive semesters after the commencement of his/her study and securing a CGPA of not less than 8.50 shall be declared as passed in First Class with Distinction. For this purpose the withdrawal from examination (Ref. section 15) will not be construed as an opportunity for appearance in the examination.

14.2 First Class

A student who qualifies for the award of degree (Ref. section 12) having passed all the courses of all the semesters within a maximum period of six consecutive semesters after commencement of his/her study and securing a CGPA of above 7.0 and below 8.5 shall be declared to have passed in First Class.

14.3 Second Class

All other students who qualify for the award of degree shall be declared to have passed in Second Class.

15. PROVISION FOR WITHDRAWAL FROM EXAMINATION

A student may, for valid reasons, be granted permission to withdraw from appearing for the examination in any course or courses of only one semester examination during the entire duration of the degree programme. Also, only one application for withdrawal is permitted for that semester examination in which withdrawal is sought. Withdrawal application shall be valid only if the student is otherwise eligible to write the examination and if it is made prior to the commencement of the semester examinations and also recommended by the Head of the Department and the Principal. Withdrawal shall not be construed as an opportunity for appearance in the examination for the eligibility of a student for First Class with Distinction.

16. BREAK OF STUDY FROM THE PROGRAMME

- (i). 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.
- (ii). A student, who would like to avail the break-of-study, shall apply to the Head of the Institution through concerned Head of the Department, in any case, not later than the last date of the first assessment period. The application (available with the Controller of Examinations) duly filled by the student shall be submitted through the Head of the Department. In case of short term employment/ training/ internship, the application for break of study shall be approved and forwarded by the Head of the Department.
- (iii). The students permitted to re-join 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 re-joining. A committee constituted by the Head of the Institution shall prescribe 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.
- (iv). 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 the Section 3 irrespective of the period of break of study in order that the student may be eligible for the award of the degree (Ref. Section 9 and 10).
- (v). 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 Directorate of Technical Education and Affiliating University.

17. RANK OF A STUDENT

A Candidate who qualifies for the Degree by passing the examination in all courses of the entire Programme in first attempt within a period of Three or Four consecutive academic years applicable for the students joined after permitted Break of Study from the date of admission to the Programme can be given his/her position in the class as rank. The Rank is determined from I Semester to VI Semester end semester examination CGPA.

18. PROCEDURE FOR USING SCRIBE

If a candidate is physically handicapped (in case of accidents / ill health) at the time of examination, he / she may be permitted to use a scribe to write the examination. In such case 30 minutes extra time will be permitted. The Scribe shall be a non-engineering student / graduate.

19. INDUSTRIAL VISIT

Every student is required to undergo one Industrial visit, starting from the third semester of the Programme. Every teacher shall take the students at least for one industrial visit in a semester.

20. PERSONALITY AND CHARACTER DEVELOPMENT

All students shall enroll, on admission in any one of the personality and character development programmes (NSS / YRC / RRC / AND OTHER EXTRA CURRICULAR PROGRAMMS). The training shall include classes on hygiene and health awareness and also training in first-aid.

21. DISCIPLINE

- **21.1.** Every student is required to observe discipline 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 Institution. The Head of the Institution shall constitute a Disciplinary Committee to enquire into acts of indiscipline and notify 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 Principal for taking final decision.
- **21.2.** 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.

22. REVISION OF REGULATIONS, CURRICULUM AND SYLLABI

The Institution may from time to time revise, amend or change the Regulations, Curriculum, Syllabus and Scheme of Examinations through the Academic Council.