

**VELALAR COLLEGE OF ENGINEERING AND TECHNOLOGY, ERODE**  
(An Autonomous Institution Affiliated to Anna University)  
**PG REGULATIONS 2016**  
**CHOICE BASED CREDIT SYSTEM**  
**DEPARTMENT OF COMPUTER APPLICATIONS**  
**MASTER OF COMPUTER APPLICATIONS (MCA)**  
**REGULATIONS 2016**  
(For students admitted from the academic year 2016-17)

**PRELIMINARY DEFINITIONS AND NOMENCLATURE**

In this Regulation, unless the context otherwise specifies:

1. **“Programme”** means M.C.A., Degree Programme.
2. **“Course”** means a Theory or Practical course that is normally studied in a semester.
3. **“Head of the Institution”** means the Principal of the College who is the responsible for all academic activities.
4. **“Chairman”** means Head of the Department, Heading the BoS activities.
5. **“College”** means Velalar College of Engineering and Technology, Erode.  
**“Credit”** means a numerical value allocated to each course to describe the candidate’s workload required per week.
6. **“Grade”** means the letter grade assigned to each course based on the marks range specified.
7. **“Grade point”** means a numerical value (0 to 10) allocated based on the grade assigned to each course.
8. **“Controller of Examinations”** means authorized person who is responsible for examinations of the College.

**1. ELIGIBILITY FOR REGULAR PROGRAMME ( 3 Years Duration)**

- A pass in a recognized Bachelor’s degree of minimum 3 years duration and obtained at least 50 % of marks (45 % in case of candidates belonging to reserved category) at the qualifying examination.
  - a) 10+2+3/4 years pattern with Mathematics at +2 level (or) degree level
  - b) 10+3 years Diploma + 3 years pattern
- Candidates appeared for Final year/ semester Examination of the said qualifying degree course may also apply for admission.
- Candidates must have appeared for TANCET (Tamil Nadu Common Entrance Test) for M.C.A. conducted by Anna University or on the basis of Common Entrance Test conducted by Consortium of Self Financing Professional, Arts and Science Colleges in Tamilnadu.

## **2. ELIGIBILITY FOR LATERAL ENTRY PROGRAMME (2 Years Duration)**

Candidates with the following qualifications are directly admitted to the third semester of the M.C.A programme:

1. Any undergraduate science or applied science degree of three years duration in Computer Applications or Computer Science or Information Technology or Computer Technology
2. Post Graduate Diploma in Computer Application after completing 3 year degree programme.
3. Candidates appeared for Final year/ semester Examination of the said qualifying degree course may also apply for admission.
4. Candidates must have appeared for TANCET (Tamil Nadu Common Entrance Test) for M.C.A. conducted by Anna University or on the basis of Common Entrance Test conducted by Consortium of Self Financing Professional, Arts and Science Colleges in Tamilnadu

## **3. ADMISSION PROCEDURE**

As per the existing stipulations of DOTE (Department of Technical Educations), Government of Tamilnadu, admissions are made into the first year and Lateral Entry for Second year is as follows:

- a) Category –A : seats are to be filled by MCA Counseling through Single window system based on Tamilnadu Common Entrance Test conducted by Anna University, Chennai.
- b) Category-B: Seats are to be filled by Management as per the norms stipulated by Anna University, Chennai and Government of Tamilnadu.

## **4. DURATION AND STRUCTURE OF THE PROGRAMME**

- a) The programme is organized on semester basis with a total of six semesters for Regular and four semesters for Lateral Entry students.
- b) A candidate shall be required to complete the course of study and qualify for the MCA Degree programme within six years (12 consecutive semesters) from the date of admission to the first semester of the Degree programme. In the case of Lateral Entry, candidate shall be required to complete the course of study and qualify for this degree programme within 5 years (10 consecutive semesters) from the date of admission to the third semester.
- c) MCA Degree Programme will have a curriculum with syllabi consisting of theory and practical courses that shall be categorized as follows:
  1. **Foundation Courses (FC)** may include Mathematics or other basic courses
  2. **Professional Core (PC)** courses include the core courses relevant to thchosen specialization/branch.
  3. **Professional Elective (PE)** courses include the elective courses relevant to MCA.

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

A student may be permitted to choose an Open Elective (OE) from other PG programmes with the approval of the Head of the Department offering such courses.

d) **Credits and Courses**

1. The curriculum of the MCA programme shall be so designed that the minimum prescribed credits required for the award of the Degree shall be **121** credits.
2. One credit shall mean one period / hour of teaching for theory or two periods for Tutorial / Laboratory course / Mini Project per week in a semester.
3. If necessary Two Tutorial hours per week may be conducted in addition to regular contact hours.
4. Normally no theory course shall have more than 4 credits.
5. One credit shall be assigned to one week of field training program where the students spend the entire duration in the field.
6. Up to two credits shall be assigned to fifteen days of Internship undergone in a Company/ Organization/Institutions approved by the FacultyAdvisor / Head of the Department.
7. Project Work carries 12 credits. The Project Work includes submission of a written Project Report and a Viva-voce examination.
8. The project work will be allotted at the end of fifth semester. The Project Report prepared according to the approved guidelines and submitted within the stipulated time. If a candidate fails to submit the project report on or before the specified deadline, he/she is deemed to have failed in the project work and shall submit the same in a subsequent semester.
9. The electives chosen by the students from the curriculum shall be offered, provided that a minimum number of students opt for this elective.( this minimum number is to be fixed by the department).

**5. COURSE ENROLLMENT AND REGISTRATION**

- 5.1 Each student, on admission shall be assigned to a Faculty Advisor 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.
- 5.2 Every student shall enroll for the course of the succeeding semester in the current semester. However, the student shall confirm the enrollment by registering for the courses within the first five working days after the commencement of the concerned semester.
- 5.3 After registering for a course, a student shall attend the classes, satisfy the attendance requirements, earn Continuous Assessment marks and appear for the Semester Examinations.

- 5.3.1 Each student shall register for the First semester courses prescribed in the curriculum within five working days after the commencement of classes.
- 5.3.2 The enrollment 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 enrollment by registering for the courses within the five working days after the commencement of the Semester II. However, the candidates have to register for arrear courses later, on dates which will be announced.
- 5.3.3 The enrollment 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 within five working days after the commencement of the concerned semester and complete the registration process duly authorized by the Faculty Advisor.
- 5.3.4 A student who has passed a course shall not be permitted to re-enroll in that course to improve the marks / grades / the aggregate marks / CGPA.

#### 5.4 Flexibility to Add or Drop courses

- 5.5.1 A student has to earn the total number of credits specified in the curriculum 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.
- 5.5.2 From the II 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.

#### 5.5 Reappearance Registration

- 5.5.1 If a student fails in a theory/ laboratory course, the student shall do reappearance registration for that course in the subsequent semester.
- 5.5.2 If a student is prevented from writing semester examination of a course due to lack of attendance, the student has to register for that semester's courses again, in the next academic year, attend the classes and fulfill the attendance requirements. 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 respectively in the subsequent semesters.

### **6. ATTENDANCE REQUIREMENTS FOR COMPLETION OF THE SEMESTER**

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

- 6.1.1 Ideally every student is expected to attend all classes and earn 100% attendance. However in order to allow provision for certain unavoidable reasons such as prolonged hospitalization / accident / specific illness the student is expected to earn a minimum of 75% attendance to become eligible to write the semester examination.
- 6.1.2 Every student must secure not less than 75% of overall attendance in that semester taking into account the total number of days classes have been conducted in that semester.
- 6.1.3 However, a candidate who secures overall attendance between 65% and 74% in that current semester due to valid reasons (prolonged hospitalization / accident / specific illness / Participation in Sports events) may be permitted to appear for the current semester examinations subject to the condition that the candidate shall submit the medical certificate / sports participation certificate to the Principal forwarded by the HOD. The same after approval from the Principal shall be submitted to the Controller of Examinations.
- 6.2 Candidates who secure less than 65% of overall attendance shall not be permitted to write the Semester examination and are not permitted to go to next semester. They are required to repeat the incomplete semester in the next academic year, as per the norms prescribed.

## **7. FACULTY ADVISOR**

To help students in their academic programme on aspects of planning, progress, counseling etc., the Head of the Department will attach a certain number of students to a faculty member of the department who shall function as Faculty Advisor for those students throughout their period of study. Such Faculty Advisor shall monitor the progress of the students in their courses, check the attendance and counsel them periodically. If necessary, the faculty advisor may also discuss with or inform the parents about the progress of the students.

The responsibilities for the faculty advisor shall be:

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

## **8. CLASS COMMITTEE**

- 8.1 Every class shall have a class committee consisting of teachers of the concerned class, student representatives and a chairperson who is not teaching the class. The overall goal of the class committee is to improve the teaching-learning process.

- 8.2 The class committee for a class under a particular discipline is normally constituted by the Head of the department within the first week of each semester.
- 8.3 The Principal may participate in any class committee meeting of the institution as and when required.
- 8.4 The Chairperson is required to prepare the minutes of every meeting and submit the same to the Principal within two days of the meeting. It shall be circulated among the concerned students and teachers. If there are some points in the minutes requiring action by the management, the same shall be brought to the notice of the management by the Principal.
- 8.5 The first meeting of the class committee shall be held within two weeks from the date of commencement of the semester, in order to inform the students about the nature and allocation of marks for continuous assessments within the framework of the regulations. Two or three subsequent meetings may be held in a semester at suitable intervals.

## 9. PROCEDURE FOR ASSESSMENT

- 9.1 Performance in each course of study shall be evaluated based on (i) continuous Assessment (CA) throughout the semester and (ii) Semester Examination (SE). The maximum marks for each type of course and the apportionment for CA and SE are given below:

S. No.	Course	Maximum Marks	Continuous Assessment	Semester Examination
1	Theory Courses	100	40	60
2	Laboratory Courses and Mini Project	100	50	50
3	Project Work	100	50	50

## 10. SEMESTER EXAMINATION

- 10.1 The Semester examination, both theory and practical, will be of 3 hours duration and will normally be conducted between October and December for the odd semesters and between April and June for the even semesters. Semester Examination is mandatory requirement for passing the course and every student should appear for the examination for theory, laboratory courses, and EEC courses.
- 10.2 The Semester examination of Theory courses will be conducted for 100 marks and scaled to 60 marks. Scheme of Semester Examinations for Theory Courses (Question Paper pattern) is given below.
- Part A – 10 x 2 = 20 Marks (10 Short Questions will cover equally all units in syllabus)
  - Part B – 5 x 13 = 65 Marks (Either or type questions, one question from each unit)
  - Part C – 1 x 15 = 15 Marks (The question is based on application / Design / Analysis / Evaluation / Creativity / Case Study from any unit)

10.3 The Semester examination of practical courses will be conducted for 100 marks and scaled to 40 marks. The evaluation pattern will be as follows:

Flowchart/Algorithm	: 10
Program	: 50
Execution & Results	: 20
Viva-Voce	: 20

10.4. The examination for the project work shall consist of the evaluation of the final report by an external examiner followed by a viva-voce examination. The viva-voce is conducted individually for each student by a committee consisting of the external examiner and an internal examiner.

Evaluation Criteria	Mini Project	Project Work
	Max. Marks (100)	Max. Marks (100)
Project Report	50	50
Presentation	25	25
Viva – Voce	25	25

10.5 The Semester examination of Mini Project will be conducted for 100 marks and scaled to 50 marks based on the evaluation criteria given above.

10.6 One credit courses shall carry 100 marks and shall be evaluated through continuous assessments only. An Assessment shall be conducted during the semester by the Department concerned for 100 marks. The Head of the Department may identify a faculty member as coordinator for the course. A committee consisting of the Head of the Department, faculty handling the course and the project coordinator shall monitor the evaluation process. The grades shall be assigned to the students by the above committee based on their relative performance.

## 11. CONTINUOUS ASSESSMENT

11.1 In each theory course the assessment pattern will be as follows:

S.No	Assessment Criteria	Duration	Marks	Weightage
1	Continuous Assessment Test 1	1.5 Hrs	50 marks	10 marks
2	Continuous Assessment Test 2	1.5 Hrs	50 marks	10 marks
3	Continuous Assessment Test 3	1.5 Hrs	50 Marks	10 marks
4	Assignments	-	10 marks	5 marks
5	Seminar/Presentation	-	10 marks	5 marks

The Continuous Assessment Tests will be conducted for 50 marks and will follow the pattern prescribed below:

- Part A – 5 x 2 = 10 Marks
- Part B – 2 x 13 = 26 Marks (Either or type questions)
- Part C – 1 x 14 = 14 Marks (The question is based on application / Design / Analysis / Evaluation / Creativity / Case Study)

- 11.2 A minimum of two and maximum of four Seminars/Assignments will be assigned per course per student. The evaluation of seminar shall be based on the seminar paper / report (40%), presentation (40%) and response to the questions asked during presentation (20%). The Assignment evaluation shall be based on the submission and presentation.
- 11.3 For practical courses, 50 marks will be for internal evaluation based on the day to day performance (30 marks) and model practical test at the end of the semester (20 marks). The Model practical test will be conducted for 100 marks and scaled to 20 marks.
- 11.4 For Mini Project, continuous assessment is based on performance evaluation of a student, and it is posted for 100 marks then scaled to 50 marks.
- 11.5 For the Project work, the continuous marks will be awarded based on three reviews by a review committee constituted by the HOD and the details of marks are as below.

No. of Reviews	Marks to be awarded	Scaled
Review 0 (Title and Area Selected)	For ambiguity Verification only	These are totaled and reduced to a scale of 50
Review 1 (Abstract)	30	
Review 2	30	
Review 3	30	
Report Preparation & Submission	10	
<b>TOTAL</b>	<b>100</b>	

## 12. PASSING REQUIREMENTS

- 12.1 A candidate who secures 50% or more marks in CA and SE calculated together and 50% or more marks in the Semester examination of a course shall be declared to have passed the course.
- 12.2 If a candidate fails to secure a pass in a particular course, it is mandatory that he/she shall register and reappear for the semester examination in that course during the next semester; he/she should continue to register and reappear for that course's semester examination till he / she secures a pass.
- 12.3 The Continuous Assessment marks obtained by the candidate in the first appearance shall be retained and considered valid for THREE attempts. However from the FOURTH attempt onwards the candidate has to obtain 50% or more marks assigned for Semester Examinations irrespective of the marks obtained in the Continuous Assessment.

## 13. AWARD OF LETTER GRADES

Award of Letter Grades

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



Range of percentage of total marks	Letter grade	Grade Point
90 to 100	<b>O</b>	<b>10</b>
80 to 89	<b>A+</b>	<b>9</b>
70 to 79	<b>A</b>	<b>8</b>
60 to 69	<b>B+</b>	<b>7</b>
50 to 59	<b>B</b>	<b>6</b>
0 to 49	<b>RA</b>	<b>0</b>
Withdrawal	<b>W</b>	-
With Held	<b>WH</b>	-
Absent	<b>AB</b>	-
Shortage of Attendance	<b>SA</b>	-
Audited course	<b>AU</b>	-

‘RA’ denotes Reappearance registration is required for that particular course.

#### 14. GPA AND CGPA CALCULATION

14.1 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.

The Grade Point Average (GPA) is calculated using the formula:

$$GPA = \frac{\sum (Credits\ Acquired \times Grade\ point\ s)}{\sum (Credits\ Acquired)}$$

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

$$CGPA = \frac{\sum_{i=1}^n C_i GP_i}{\sum_{i=1}^n C_i}$$

Where,  $C_i$  is the Credit assigned to the Course,  
 $GP_i$  is the grade point for each course and  
n is total number of courses for the entire programme.

- 14.2 The credits earned through one credit courses shall not be considered for calculating GPA and CGPA.
- 14.3 If a student studies more number of electives than required as per the student's programme curriculum, the courses with higher grades alone will be considered for calculation of CGPA.
- 14.4 Formula for converting CGPA in to percentage : % of marks = CGPA x 10

## 15. REVALUATION

A candidate can apply for revaluation of his / her Semester examination answer paper in a theory course, within 1 week from the declaration of results, on payment of a prescribed fee through proper application to the Controller of Examinations through the Head of the Department. The Controller of Examination will arrange for the revaluation and the results will be intimated to the candidate concerned through the Principal. Revaluation is applicable for theory courses only and not permitted for practical related courses, mini project, and project work.

## 16. ELIGIBILITY FOR THE AWARD OF MCA DEGREE

A student shall be declared to be eligible for the award of the MCA Degree, provided, the student has successfully completed the course requirements and has passed all the prescribed examinations in all the 6 semesters within a maximum period of 6 years from the commencement of the first semester to which the candidate was admitted. In the case of Lateral Entry students (who are admitted directly in third semester), prescribed examinations in all the 4 semesters within a maximum period of 5 years from the commencement of the third semester and no disciplinary action against the student is pending.

## 17. CLASSIFICATION OF THE DEGREE AWARDED

- 17.1 A candidate, who qualifies for the award of the Degree, having passed the examination in all the courses in his/her first appearance within the specified minimum number of semesters, securing a **CGPA of 8.50 and above** shall be declared to have passed the examination in **First Class with Distinction**. For this purpose withdrawal from the examinations will not be considered as an appearance.
- 17.2 A candidate who qualifies for the award of the Degree having passed the examination in all the courses within the specified minimum number of semesters plus one year, securing a **CGPA of 7.0 and above but below 8.5** shall be declared to have passed the examination in **First Class**.
- 17.3 For the award of First Class with Distinction and First Class, candidates permitted to undertake the Authorized Break of Study will be granted an additional period of 1 year (Authorized Break period) besides the minimum period specified in 17.1 and 17.2
- 17.4 All other candidates (not covered in clauses 17.1 to 17.3) who qualify for the award of the degree shall be declared to have passed the examination in Second Class.
- 17.5 A candidate who is absent in semester examination in a course / project work after having enrolled for the same shall be considered to have appeared in that examination for the purpose of classification.

## **18. PROVISION FOR WITHDRAWAL FROM SEMESTER EXAMINATION**

- 18.1 A candidate may, for valid reasons and on prior application, be granted permission to withdraw from appearing for the examination of any one course or consecutive examinations of more than one course in a semester examination.
- 18.2 Such withdrawal shall be permitted only once during the entire period of study of the degree programme.
- 18.3 Withdrawal application shall be valid only if the candidate is otherwise eligible to write the examination. Withdrawal of application is valid only if it is made before the last working day of that semester and recommended by the Head of the Department. It should also be approved by the Head of the Institution.
- 18.4 Notwithstanding the requirement of mandatory last working day notice, applications for withdrawal under extraordinary conditions will be considered based on the merit of the case.
- 18.5 Withdrawal shall not be considered as an appearance for the eligibility of a candidate to pass in First Class with Distinction.
- 18.6 The provision for Withdrawal from the Semester examination is applicable to only the current semester courses and not for arrear courses of previous semesters.
- 18.7 The candidate shall reappear for the withdrawn courses during the examination conducted in the subsequent semester.

## **19. PROVISION FOR AUTHORISED BREAK OF STUDY**

- 19.1 Break of Study on valid reasons for a maximum of one year shall be granted only once during the entire period of study of the degree programme. However, in extraordinary situations the candidate may apply for additional break of study not exceeding another one year by paying prescribed fee. If a candidate intends to temporarily discontinue the programme in the middle of the semester for valid reasons and to rejoin the programme in a subsequent year, permission may be granted based on the merits of the case provided he/she applies to the Principal, before the last date for registering for the semester examinations of that semester.
- 19.2 The candidate permitted to rejoin the programme after the break shall be governed by the curriculum and regulations in force at the time of rejoining. If the regulations are changed, then, those candidates may have to do additional courses as prescribed.
- 19.3 The authorized break of study for a maximum of one year, will not be counted with the duration that is required to pass all the courses. However, in case of additional break of study, the break period will be added to the duration of study for the purpose of classification of degree.
- 19.4 If any student is detained for the want of requisite attendance, progress and good conduct, the period spent in that semester shall not be considered as permitted 'break of study'. Moreover, withdrawal (clause 18) is not applicable in such cases.

## **20. DISCIPLINE**

20.1 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 College / University. The Principal shall constitute a disciplinary committee consisting of the Principal or his nominee, two Heads of Departments of which one should be from the faculty of the student, to enquire into acts of indiscipline and notify the Management of the College about the disciplinary action recommended for approval.

21.2 If a student indulges in malpractice in any of the Semester / continuous examination he / she shall be liable for punitive action as prescribed by the college from time to time.

## **21. REVISION OF REGULATIONS AND CURRICULUM**

1. The College may from time to time revise, amend or change the Regulations, scheme of examinations and syllabi if found necessary.
2. The Academic Council of the College reserves the right to revise or change or amend the regulations, the scheme of examinations, the curriculum and the syllabi from time to time.
3. Nothing in the foregoing, limits the power of the Academic Council to amend, modify or repeal any or all of the above.