

**ADHIYAMAAN
COLLEGE OF ENGINEERING**
(An Autonomous Institution)

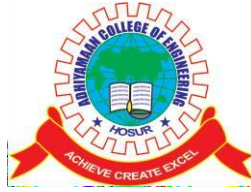


MCA
Regulation - 2024

Approved by AICTE - New Delhi.
Affiliated to Anna University - Chennai
Accredited by NBA - NAAC - UGC - New Delhi.

Dr. M.G.R. Nagar, Hosur - 635 130, Krishnagiri (Dist.), Tamil Nadu

Clause No:	Contents	Page Number
1	PRELIMINARY DEFINITIONS AND NOMENCLATURE	1
2	ADMISSION PROCEDURE	2
3	PROGRAMMES OFFERED	2
4	CURRICULUM FRAMEWORK	2
5	DURATION AND STRUCTURE OF THE PROGRAMMES	5
6	COURSE REGISTRATION	5
7	REQUIREMENTS FOR APPEARING FOR SEMESTER END EXAMINATION	6
8	FACULTY ADVISOR	7
9	CLASS COMMITTEE	7
10	ASSESSMENT PROCEDURES FOR AWARDING MARKS	8
11	PASSING REQUIREMENTS	10
12	AWARD OF LETTER GRADES	10
13	GPA/CGPA CALCULATION	11
14	ELIGIBILITY FOR THE AWARD OF DEGREE	12
15	PROVISION FOR WITHDRAWAL FROM EXAMINATION	13
16	BREAK OF STUDY	13
17	CODE OF CONDUCT	13
18	REVISION OF REGULATIONS, CURRICULUM AND SYLLABI	13



ADHIYAMAAN COLLEGE OF ENGINEERING

(An Autonomous Institution)

Affiliated to Anna University – Chennai & Approved by AICTE – New Delhi.

Accredited by NAAC – NBA – UGC – New Delhi.

Dr. M. G. R. Nagar, HOSUR – 635130, Krishnagiri (Dist.), Tamil Nadu, India.

www.adhiyamaan.ac.in

REGULATION - 2024

M.C.A Programme

1. PRELIMINARY DEFINITIONS AND NOMENCLATURE

In this Regulation, unless the context otherwise specifies:

- I. **“Programme”** means Post Graduate Degree Programme - M.C.A.
- II. **“Discipline”** means Branch or Specialization of M.C.A Programmes.
- III. **“Choice Based Credit System”** means providing choices for students to select courses from the prescribed course categories in the preferred semesters complying with pre-requisites and based on the students’ learning aptitudes.
- IV. **“Course”** means a Theory or Practical course that is normally studied in a semester.
- V. **“Head of the Institution (HoI)”** means the Principal of the college.
- VI. **“Dean (Autonomous Functioning)”** means the authority who is responsible for the functioning of the institute activities.
- VII. **“Dean (Academics)”** means the authority of the college who is responsible for all academic activities for the implementation of relevant rules and regulations.
- VIII. **“Dean (R&D)”** means the authority responsible for Research and Development activities of the Institute.
- IX. **“Controller of Examinations (CoE)”** means the authority of the college who is responsible for all activities of the Semester End Examination system.
- X. **“Head of the Department (HoD)”** means the authority responsible for Department concerned.
- XI. **“DoTE”** means Directorate of Technical Education, Chennai.
- XII. **“University”** means Anna University, Chennai.
- XIII. **“CIO”** means Chief Incubation Officer.
- XIV. **“BoS”** means Board of Studies.
- XV. **Academic Council”** means the Apex Body for academic matters of the Institute.
- XVI. **“Governing Body”** means the Administrative and Policy-making Body of the Institute.

2. ADMISSION PROCEDURE

Candidates seeking admission to M.C.A. Programme shall be required to satisfy the conditions of the admission, thereto, prescribed by the Anna University, Chennai and Government of Tamilnadu.

2.1. BRIDGE COURSE

The Bridge Course is applicable for the students taking admission to M.C.A. Programme and who have graduated without Computer Specialization (Computer Science, Computer Applications, Information Technology and Software Engineering) for a duration of 30 hours in each semester during the first year.

3. PROGRAMME OFFERED

S.No.	NAME OF THE PROGRAMME
1	M.C.A. - Master of Computer Applications

4. CURRICULUM FRAMEWORK

4.1. Preamble

4.1.1. Curriculum framework is important in setting the right direction for Post Graduate Degree Programme as it considers the type and quantum of knowledge necessary to be acquired by a student to qualify for an award of degree.

4.1.2. Besides, this also helps in assigning the credits for each course, sequencing the courses, and finally arriving at the total number of courses to be studied and the total number of credits to be earned by a student to fulfill the requirements for the award of the degree.

4.2. Programme Structure

Choice Based Credit System (CBCS) is followed in the programme, in order to promote

- I. Student-centric learning
- II. Students to learn courses of their choice
- III. Interdisciplinary learning

4.3. Categorization of Courses

M.C.A. Programme have a curriculum and syllabus consisting of theory and laboratory courses that shall be categorized as follows:

- I. **Foundation Courses (FC)** 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. **Open Elective Courses (OEC)** include the courses offered by a branch to other branches, from the list specified in the respective curriculum.
- V. **Research Methodology and IPR Course (RMC)** covers topics on the process of research and patenting.
- VI. **Employability Enhancement Courses (EEC)** include Project Work, Internship, Seminars, Professional Practices, Case Studies, Industrial/Practical Trainings etc.
- VII. **Audit Courses (AC)** include the courses such as Constitution of India, Natramizh Ilakkiam, etc.

4.4. Number of Courses per Semester

Each semester curriculum shall normally have courses not exceeding 36 credits (including Theory/Lab Integrated Theory/Employability Enhancement Courses and Laboratory courses).

4.5. Credit Assignment

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

Contact period per week	Credit
1 Lecture Period	1
1 Tutorial Period	1
2 Periods of Laboratory/Seminar/Project work	1

4.6. Massive Open Online Courses (MOOC)

- 4.6.1. Students are permitted to register in reputed courses from SWAYAM online portal for skill development, humanities, management, design/research methodology/ entrepreneurship etc. with prior approval from HoD concerned.
- 4.6.2. The students may be permitted to credit a maximum of two online courses, subject to a maximum of 6 credits with the approval of the HoI in lieu of Professional/Open Elective courses. A Committee consisting of the HoD, a Faculty Advisor and a Senior Faculty member shall monitor to ensure that the student has not studied such courses and would not repeat them as Professional Core/Elective/Open Elective courses.

4.7. Audit courses

The student optionally studies audit courses prescribed in the curriculum and it shall not be considered for the computation of the Cumulative Grade Point Average (CGPA) and it shall be printed in the grade sheet.

4.8. Employability Enhancement Courses (EEC)

Employability Enhancement Courses (EEC) include Project Work/Internship, Seminars, Professional Practices, Summer Projects, Case Studies and Industrial/Practical Training.

4.9. Value Added Courses (VAC)

The students shall optionally undergo Value Added Courses (VAC) over and above the topics covered in the curriculum to obtain practical and industry-specific knowledge. The credits earned through the VAC shall be over and above the total credit requirements prescribed in the curriculum for the award of the degree. One/Two credit courses shall be offered by the department with prior approval from the HoI.

The details of the syllabus, timetable and course coordinator details may be sent to the HoI at least one month before the commencement of the course offered by the department for approval. Students can take a maximum of two value-added courses during the entire duration of the programme.

These value-added courses shall be printed in the consolidated grade sheet as additional courses pursued by the student over and above the curriculum during the period of study.

4.10. Medium of Instruction

The medium of instruction is English for all courses, examinations, seminars, presentations and laboratory records / project reports.

5. DURATION AND STRUCTURE OF THE PROGRAMMES

5.1. The minimum and maximum period for completion of the M.C.A Programme are given below:

Programme	Minimum Number of Semesters	Maximum Number of Semesters
M.C.A	4	8

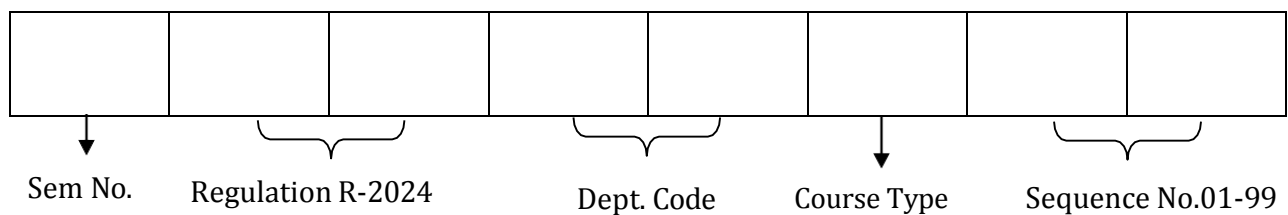
5.2. Each semester shall normally consist minimum of 90 working days. The HoD shall ensure that every faculty member imparts instruction as per the number of periods specified in the syllabus, covering the full content of the courses being taught.

5.3. The minimum prescribed credits required for the award of the degree shall be within the limits specified below:

Programme	Credit Range
M.C.A.	90–100

6. COURSE REGISTRATION

6.1. Course Code Numbering Scheme



6.2. On admission, each student shall be assigned a Faculty Advisor (vide clause 8), who shall advice and counsel the student about the details of the academic programme and the choice of courses offered, considering the student's academic background and career objectives.

6.3. Registration for the courses of the semester commences during the first week of the current semester. The student shall register for the courses with the guidance of the student's Faculty Advisor. If the student wishes, he/she may change courses within ten working days after the commencement of the concerned semester and complete the registration process duly authorized by the HoD.

6.4. After registering for a course, a student shall attend the classes, satisfy the attendance requirements, earn continuous assessment marks and appear for the semester end examinations.

6.5. Flexibility to change Course

- 6.5.1. A student has to earn the total number of credits specified in the curriculum of the respective programme of study in order to be eligible to obtain the degree.
- 6.5.2. On the recommendation of the Faculty Advisor and approval of the HoD, the student has the option to change the course(s) within the stipulated period.
- 6.5.3. From the first to the pre-final semester, the student has the option of dropping existing courses in a semester during registration. A total number of credits for such courses cannot exceed 6.

6.6. Reappearance Registration

- 6.6.1. If a student fails in a theory/practical/project work course, registration for that course in the subsequent semester is compulsory.
- 6.6.2. If a student has not registered for examinations or is prevented from writing semester end examinations due to lack of attendance/disciplinary activity, the student has to rejoin the programme in the same semester during the next academic year with prior approval of the DoTE and the University.

7. REQUIREMENTS FOR APPEARING SEMESTER END EXAMINATION

A student who fulfils the following conditions (vide clause 5.1 and 5.2) shall be considered to have satisfied the attendance requirements for appearing for the semester end examination.

- 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.
- 7.2. If a student secures attendance between 65% and 75% 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 HoD and HoI concerned, the student shall be given condonation at the discretion of the HoI and shall be permitted to appear for the semester end examination. In all such cases, the students should submit the required documents to the HoI through the HoD concerned. Condonation shall be given only once in the course of study.
- 7.3. A student shall normally be permitted to appear for the semester end examinations if the student satisfies the attendance requirements (vide Clause 7.1 – 7.2) and registers for examinations of

that semester by paying the prescribed examination fee. However, if a student fails to register for semester end examinations, it will be treated as detained and has to rejoin as per clause 6.6.2.

8. FACULTY ADVISOR

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

The responsibilities of the Faculty Advisor shall be:

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

9. CLASS COMMITTEE

A Class Committee is constituted class-wise by the HoD and shall normally comprise of faculty members handling the classes, student representatives and a senior faculty member who doesn't handle the courses as Chairman.

The composition of the Class Committee for each programme is as follows:

All the faculty members handling courses of the semester and two student representatives (male and female) of each class nominated by the HoD.

All the Faculty Advisors, HoD and the Class Committee shall meet at least twice during a semester. The first meeting shall be held within two weeks from the date of commencement of classes, in which the components of Continuous Assessment for various courses and the weightages for each component of the assessment are decided and informed to the student. Two or three subsequent meetings may be held at suitable intervals in which the members shall meaningfully interact and express opinions and suggestions to improve the effectiveness of the teaching-learning process.

10. ASSESSMENT PROCEDURES FOR AWARDING MARKS

10.1. Performance in each course of study shall be evaluated based on the marks for continuous assessment. The continuous assessment carries 40 for theory courses and 60 for laboratory courses and the semester end examination carries 60 for theory courses and 40 for laboratory courses/project. Seminars, industrial visits/practical training/in-plant training, case study etc. are evaluated by continuous assessment for 100 Marks.

10.2. Assessment of Courses**10.2.1. Continuous Assessment (CA)****THEORY COURSES**

For all the theory courses, the continuous assessment shall be 40 marks consisting of three- unit tests, two model examinations and case study/seminar.

Continuous Assessment	Weightage
Unit Tests (3 x 10)	30
Model Examination (1 x 5)	05
Case Study/Seminar	05
TOTAL	40

LABORATORY COURSES

For all the laboratory courses, the continuous assessment shall be 60 marks consisting of student's performance in each laboratory session and model examination.

Continuous Assessment	Weightage
Lab Performance	25
Laboratory Record	15
Model Examination	20
TOTAL	60

PROJECT WORK

For project work, the HoD shall constitute the Project Review Committee consisting of two faculty members with diversified specializations and a project guide. Continuous assessment for 60 marks shall be assessed as given in the table below.

Continuous Assessment	Weightage
Review-I	20
Review-II	20
Review-III	20
TOTAL	60

10.2.2. End Assessment (EA)

The semester end examinations for Theory/Practical/Project work shall be of 100 marks which are conducted during November/December in the odd semester and April/May in the even semester.

10.3. ASSESSMENT FOR ONLINE COURSES

Upon successful completion of the course, the student has to submit the digitally signed and verified certificate to the Head of the department. Based on the recommendations by the HoD and Programme Assessment Committee, the same shall be forwarded to the CoE office along with the details of electives to be dropped.

10.4. ASSESSMENT FOR AUDIT COURSES

For the students who complete the audit course satisfying attendance requirements, the title of the audit course shall be mentioned in the grade sheet. If the attendance requirement is not satisfied, it shall not be shown in the grade sheet. The credits earned through the audit courses shall be over and above the total credit requirements prescribed in the curriculum. These credits are not considered for CGPA calculation.

10.5. ASSESSMENT FOR VALUE ADDED COURSES

The one/two credit courses shall carry 100 marks and shall only be evaluated through continuous assessment conducted by the department. These credits are not considered for CGPA calculation. The list of students along with the marks shall be forwarded to the CoE for further processing.

11. PASSING REQUIREMENTS

11.1. The Passing requirement for a student in a course is based on the analysis of the marks obtained both in Continuous Assessment (CA) and Semester End Examinations (EA). Students shall be declared pass if they secure 50% of marks in the End Assessment (EA) Examination and 50% marks in total (CA+EA), in theory/practical/project courses.

If a student fails to secure a pass in a particular course, it is mandatory that he/she shall register and reappear for the examination in that course during the next semester; he/she should continue to register and reappear for the examination till he/she secures a pass. However, the Continuous Assessment marks (CA) obtained by the student in the first appearance shall be retained and considered valid for all subsequent attempts.

11.2. Photocopy and Revaluation

Revaluation is permitted only for theory courses.

Stage I:

- The student who wants to apply for revaluation has to apply for photocopy of answer script(s) by paying the prescribed fee.
- The student may approach a subject expert in the department for review of the photocopy of the answer script(s).

Stage II:

- Based on the review, the student can apply for revaluation through proper application to the CoE.
- The CoE arranges the revaluation and the results shall be intimated to the student through the department.

The student can apply for the revaluation of answer scripts for not exceeding five courses at a time.

12. AWARD OF LETTER GRADES

The award of letter grades is decided based on the grading principle. If the class strength is greater than 30, the relative grading shall be adopted. However, if the class strength is less than or equal to 30, the fixed grading shall be followed. The grade range is as specified below:

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

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

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

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

“U” denotes that the student has failed in that course. “WD” denotes **withdrawal** from the examination for the particular course. The grades U and WD figure both in the Grade Sheet as well as in the tabulated mark result. In both cases, the student has to reappear for the semester end examinations.

13. GPA/CGPA CALCULATION

13.1. 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 product of the number of credits of passed courses registered and the grade points corresponding to the grades scored in those courses to the sum of the number of credits of all the passed courses in that semester.

$$CGPA/GPA = \frac{\text{Sum of Weighted Grade Points}}{\text{Total Credits}} = \sum \frac{(GP_i)C_i}{C_i}$$

Where,

C_i is the credit for each course in each of the completed semesters at that stage and GP_i is the grade point earned by the student for that course. The CGPA is rounded off to two decimals.

- 13.2. The credits earned through vide clause 4.8 and 4.9 shall not be considered for calculating GPA and CGPA.
- 13.3. Conversion of CGPA into percentage of marks, Percentage of Marks = CGPA X 10.
- 13.4. Malpractice in Examinations

If a student indulges in malpractice in any of the Continuous Assessment/End Assessment, he/she shall be liable for punitive action as prescribed by the institution in line with the university rules from time to time.

14. ELIGIBILITY FOR THE AWARD OF DEGREE

- 14.1. A student shall be declared to be eligible for the award of the M.C.A. Degree provided the student has
- I. Successfully gained the required number of total credits as specified in the curriculum corresponding to the student's programme.
 - II. Successfully completed the course requirements and appeared for the semester end examinations and passed all the courses prescribed in all 4 semesters within a maximum period of 4 years for M.C.A.
 - III. Successfully passed additional courses (if any), prescribed by the Board of Studies whenever readmitted/admitted through transfer, under prevailing regulations.
 - IV. No disciplinary action pending against the student.

14.2. CLASSIFICATION OF THE DEGREE AWARDED

Description	Class
Passing all the courses on the first attempt. CGPA ≥ 8.50 with no history of arrears. The degree must be completed within the stipulated period.	First Class with Distinction
CGPA ≥ 6.50 Degree must be completed within the stipulated period/passed the examination in all the courses within the specified minimum number of semesters plus a grace period of one year.	First Class
All other successful candidates	Second Class

15. PROVISION FOR WITHDRAWAL FROM EXAMINATION

- 15.1. A student may withdraw from examination for any valid reasons (medically unfit/unexpected family situations/sports activities) once in any one of the semesters. In line with this, the HoD has to recommend and the HoI has to approve the same.
- 15.2. Withdrawal application shall be valid only if the student is otherwise eligible to write the examination (Clause 7) and if it is made within ten working days before the commencement of the semester end examinations and recommended by the HoD.

16. BREAK OF STUDY

- 16.1. A student may be allowed to break temporarily for valid reasons (such as prolonged illness, hospitalization, unexpected family situation etc.) and to rejoin the programme. The student shall apply through HoD and the HoI, in any case, not later than two months prior to the commencement of the ensuing semester in which break has occurred to repeat that semester in the next academic year. This is subject to the approval of DoTE and Anna University-Chennai.
- 16.2. The students permitted to rejoin the programme after break of study/detention 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 CoE in the prescribed format through HoD 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.
- 16.3. The total period of completion of the programme to which the candidate was first admitted, shall not exceed the maximum period specified (vide clause 5.1), irrespective of the period of the break of study in order that he/she may be qualified for the award of the degree.

17. CODE OF CONDUCT

Violation of code of conduct shall result in disciplinary action which may include punishment such as reprimand, disciplinary probation, penalty, prevention from the examination, withholding of grades/degree, cancellation of registration, withdrawal of placement services and even expulsion from the institution.

18. 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 with the approval of the Governing Body.