

**MCA PROGRAMME
ACADEMIC REGULATIONS (R23)
(Effective From 2023-24 batch)**

AURORA HIGHER EDUCATION AND RESEARCH ACADEMY

Deemed-to-be University

(Estd. u/s. 03 of UGC Act 1956)

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1. SHORT TITLE, COMMENCEMENT AND APPLICABILITY

- 1.1 These regulations shall be called the Master of Computer Applications (MCA) Academic Regulations (R23).
- 1.2 These regulations shall come into force with immediate effect.
- 1.3 These regulations are applicable to students admitted under the MCA Programme from the Academic Year 2023-24.

2. ADMISSION

- 2.1 **Notification:** The University shall issue admission notification for the MCA Programme annually in leading National newspapers and the University website.
- 2.2 **Eligibility Criteria:** Candidates seeking admission to the MCA Programme must have:
 - (a) A Bachelor's Degree (minimum 3 years duration) in any discipline from a recognized University with at least 50% marks with mathematics background after 10+2.
 - (b) A valid score in the University entrance test AURUM PG.
- 2.3 **Application Procedure:** Interested and eligible persons shall submit an online application through the University website as and when notified, along with the following:
 - (a) Scanned copies of relevant academic certificates.
 - (b) Entrance exam scorecard.
 - (c) Passport size photograph.
 - (d) Application fee as prescribed.
- 2.4 **Selection Process:** Selection shall be based on:
 - (a) Entrance Examination Score (70% Weightage)
 - (b) Personal Interview (30% Weightage)
- 2.5 **Letter of Admission :** Based on the merit, candidates meeting the eligibility criteria shall be issued a Letter of Admission (LoA).
- 2.6 **Fee Structure:** The fee structure for the Full Time MCA programme offered by the University shall be as follows:

S.No	Type of Fee	Amount (in Rs.)
1	Admission Fee	10,000/-
2	Student Expenses	5000/- per annum
3	Tuition Fee	125000/- per annum
4	External Certification Fee	Course based Fee
5	Convocation Fee	5,000/-
6	Alumni Registration Fee	2,000/-

Note: Other services like accommodation, transportation, entry fee to events, club activities etc. are not included in the tuition fee. Any other fee prescribed by the university for student activities shall be payable separately.

- 2.7 **Enrolment:** Candidates must complete the enrolment process by submitting the required documents and paying the prescribed fee. A Unique Registration Number (URN) shall be allotted.

- 2.8 **Cancellation of admission:** The admission of a student may be cancelled in any of the following cases:
- Non-payment of tuition fees
 - Submission of false documents.
 - Failure to attend classes within two weeks of commencement.
 - Not complying with the minimum attendance requirement.
 - Violating the student code of conduct
- 2.10 **Self-Cancellation of Admission:** In case a student wishes to cancel the admission, he/she shall apply online for cancellation of admission subject to the condition of paying the fees for the duration of study.
- 2.11 **Re-registration:** Student under academic suspension at any stage of the MCA programme can apply for re-registration for the term in which his/her admission was suspended, subject to the condition of paying the tuition fee and any other fee as prescribed by the University.
- 2.15 **Admission Calendar:** The University shall adhere to the following admission calendar approved by the Academic Council.

S.No	Activity	Schedule
1	Commencement of Online Application	1st Week of June
2	Last date for Application	2 nd Week of July
3	AURUM-PG Test	3rd Sunday of July
6	Letter of Admission (LoA)	1 st week of August
7	Enrolment	Two weeks from the date of LoA
8	Commencement of academic session	1 st Monday of September

3. PROGRAMME

- 3.1 **Disciplines:** The University offers MCA programme in the following specializations:
- Regular
 - Data Science
- 3.2 **Medium of Instruction:** The medium of instruction shall be English
- 3.3 **Duration:** The minimum and maximum duration shall be two (2) and four (4) years respectively.
- 3.4 **Pattern:** Each academic year of the MCA programme is offered as four terms under the quarter system. Each term shall comprise of 10 weeks duration with at least 45 instruction days

4. PROGRAM STRUCTURE

- 4.1 The MCA programme offered by the University is structured in a Multi-Layer Integrated Program Framework with Core Education, Research Education, External Certifications and Foreign Language Certifications for the two year programme duration.
- Core Education (CE)** : The discipline specific course work.
 - Research Education (RE)** : Activities to enhance the research experience and skills.
 - External Certifications (EC)**: Certifications for English language, IT proficiency and Technical up skilling.
 - Foreign Language Certifications (FL)**: Certifications for Foreign Language proficiency.
- 4.2 **Course Components:** All the courses and activities prescribed for the MCA program are defined in the programme structure.

4.2.1 **Course code denotation:** Each course of the programme is denoted by a five-digit alphanumeric code, an alphabet followed by three digits. Ex:XXYZZ whereXX - The first two digits represent the department offering the course, Y represents the level of the course, ZZ represents the sequence in the department subject list.

4.2.2 **Core program courses:** Mandatory professional core courses and specialization prescribed.

4.2.3 **Research Enrichment Activities:** Mandatory activities prescribed:

S. No	Activity	S. No	Activity
1	Research Methodology	2	Research and Publication Ethics
3	Participation in Workshop	4	Hot House
5	Honours Essay	6	Participation in National/ International Conference
7	Paper Publication in a Refereed/ Peer Reviewed Journal		

4.2.4 **External Certifications:** Mandatory certification courses prescribed:

S. No	Course	S. No	Course
1	Cambridge English B1	4	IT Proficiency I, II, III (Microsoft office specialist: Word, Excel, Power Point 2019)
2	Cambridge English B2	5	Cambridge English C1
3	Professional Certifications – I,II & III		

4.2.5 **Foreign Language Certifications Courses :** Mandatory activities prescribed as listed herewith:

S. No	Course	S. No	Course
1	Foreign Language – A1	2	Foreign Language – A2

4.2.6 **Credit distribution:** The break-down of the credit distribution for the course components shall be as follows:

S.No.	Course Component	No. of Credits	Weightage in %
1	Core Education	126	81
2	Research Education	12	08
3	External Certifications	15	10
4	Foreign Language	02	01
Total		155	100

4.3 **Contact hours and credits:** Course offered may have anyone or combination of the following components:

- (a) Lecture (L): Classroom sessions delivered by faculty in an interactive mode.
- (b) Practice (P): Classes which allow discussion of lecture content and assignments, clears the doubts of the students and helps them understand the subject better.
- (c) Laboratory (P): Practical/Project Work consisting of field work/case studies etc. that equip
- (d) Course Project (CP): Project work in the course of study

The norms for Course Credits are as follows:

Lecture : One (1) period per week is assigned one (1) Credit (C).

Practice/ Laboratory: period (2) hours per week is assigned one (1) Credit (C).

- 4.3 **Course Structure:** The year-wise distribution of courses for the MCA programme with the quarter system (each term) shall be as follows:

Year	Term	Core Programme				Research Education	External Certification	Foreign Language	Credits	Total
		Sub 1	Sub 2	Sub 3	Sub 4	Activity	Course	Subject		
I	I	Maths 1	PCC 1	PCC 2	PCC 3	-	IT PC 1	-	17	78
		4	4	4	4		1			
	II	Maths 2	PCC 5	PCC 6	PCC 7	RE-1	IT PC 2, CEFR B1	-	20	
		4	4	4	4	2	2			
	III	Maths 3	PCC 8	PCC 9	PCC 10	RE-2	IT PC 3, DPS I,II	-	20	
		4	4	4	4	2	2			
	IV	MOOCS	Internship	-	-	RE 3, RE4	PC 1, CEFR B2, DPS III, IV	A1 Level	21	
		3	11			2	4	1		

II	I	PCC 11	PCC 12	PCC 13	PCC 14	RE 5	-	-	18	77
		4	4	4	4	2				
	II	SE1C1	SE2C1	SE1C2	SE2C2	RE-6	PC 2, CEFR C1	-	22	
		4	4	4	4	2	4			
	III	SE1C3	SE2C3	SE1C4	Capstone Project I	-	-	-	19	
		4	4	4	7					
	IV	Capstone Project II	-	-	-	RE-7	PC3	A2 Level	18	
		13				2	2	1		

PCC – Professional Core Course - Core Courses provide a foundation in the fundamental practices of Computer Applications and programming Skills essential to succeed in Career. These Courses are Mandatory Courses. Students must study to meet the requirements to complete the Program

SEC – Specialization Elective Stream Course – It is a course that students choose to take as specialization area part of the programme of study. Students are required to choose two streams areas of specialization from a pool of specializations offered by the department

- 4.5 **Course Registration:** Students shall undertake self-registration of courses in the online portal in accordance to the prescribed course structure and subject to qualifying the course pre-requisites, at least one week before the commencement of the term.
- 4.6 **Syllabus:** The syllabus for all the courses shall be available with the Board of Studies of the department concerned.

4.7 Attendance and Etiquette

- (a) Minimum 75% attendance in each course of every term is mandatory. However, 10% relaxation shall be provided to all the candidates on medical grounds.
- (b) Attendance of N.C.C/N.S.S. Camps or Inter University or Inter State or International matches or competitions or events etc. such other Inter University activities as approved by the School Dean will not be counted as absence. However, such absence shall not exceed (1) week per Term of the total period of instructions. Such facility should not be availed twice during the course of study.
- (c) In any Term of the course if a student fails to secure the minimum percentage of attendance, he/she shall not be eligible to appear in the Course Project Presentation and Reflective Essay at the end of the term. He/she shall have to enroll himself/ herself to undergo afresh a 'Regular Course of Study' in order to become eligible to appear for the course continuous assessment. The Student needs to pay the required Rs 10,000/- fee per subject as per the University Norms.
- (d) Students shall abide by the code of conduct of the University and exhibit professional etiquette while on campus.

5. TEACHING LEARNING PROCESS

MCA Program follows the University approved "Reflective Teaching-Learning Process" aligned with Kolb's learning cycle. This learning is most effective when students are actively involved, encouraged to reflect on their experiences, connect theory with practice, and apply their learning to real-world contexts. Our reflective teaching-learning process is structured across the following four stages:

a. Concrete Experience (Learning by Doing)

Opportunities are created for students to engage in practical, real-world learning experiences. Students participate actively in experiments, simulations, case studies, role-plays, fieldwork, and problem-solving activities.

b. Reflective Observation (Learning by Reflecting)

After each experiential activity, students are encouraged to observe and reflect on their experiences. They analyze what happened, how they felt, what challenges they faced, and what outcomes were achieved.

c. Abstract Conceptualization (Learning by Thinking)

Students connect their experiences and reflections with theoretical concepts and academic frameworks. This helps them to form new ideas, models, and generalizations based on their experiences.

d. Active Experimentation (Learning by Applying)

Students apply the new knowledge and insights they have gained to new situations, projects, case studies, and real-life challenges. They test their understanding, develop solutions, and innovate based on their learning.

To ensure that reflection is consistently embedded in the learning process, we have institutionalized the practice of weekly reflective journal writing. Students are required to submit reflective journals after completing each module, activity, or major learning experience. These journals are reviewed as part of the academic assessment and contribute to the student's growth as an independent and critical learner. Peer observation and collaboration enhance the process, promoting shared learning. Student feedback guides faculty in refining practices, ensuring responsiveness to evolving needs. Faculty feedback cultivates a culture of continuous growth and excellence, empowering students for an enhanced learning experience.

6. ASSESSMENT & EVALUATION

6.1 Assessments Aligned to Reflective Learning

All assessments — including quizzes, in-class activities, case studies, assignments, classroom presentations, course projects, internships, research assignments — are designed to align with the stages of the Reflective Teaching-Learning Process. Students are assessed not only on knowledge acquisition but also on their ability to reflect, conceptualize, and apply learning effectively.

6.2 **Evaluation:** The evaluation for the MCA program shall be strictly as per the University Continuous Assessment Policy

6.3 **Core Education:** The performance of the candidates in all the subjects during the coursework shall be assessed continuously based on the university approved rubrics for each of the assessment tool. Each subject is offered through components of learning – Theory, Laboratory/ Practice and Course Project with weightages 1000, 500 and 500 respectively totaling to 2000 points. Student shall score a minimum of 60% to be declared as *Pass*. The following is the continuous reflective assessment and evaluation methodology for each of the learning component:

6.3.1 Theory Assessment

S.No	Kolb's cycle phase	Assessment Tools	Max Points	No. of assessments	Total Points	Remarks
I Assessment as Learning (20%)						
a		Pre learning submission : Free Writing	20	5	100	For any 5 modules
b	CE	Pre- Learning Assessment : Quiz/ SAQs/ PRP/ PR GD etc	20	5	100	As per faculty choice For any 5 modules. (Atleast two tools to be chosen from list of approved pre-learning assessment tools)
Sub-Total					200	
II Assessment for Learning (60%)						
a		Group Assignment	50	1	50	Module 1, 2,3
c		Reflective Journal	20	10	200	One per module
d	RO	Professional Meeting/expert talk/ master class/video lecture learning report etc.	50	1	50	One per term
e		Field trip, training, workshop learning report etc.				
f	AC	Assignment - I	100	1	100	Assignment I - 4, 5,6 Modules
		Assignment - II	100	1	100	Assignment II -

						7, 8,9 Modules
i		Case Study / Journal review	50	1	50	As per schedule
j	AE	Student Lecture	50	1	50	As per schedule
Assessment for Learning (60%)						
k	AE	Reflective Essay	200	1	200	Comprehensive
Sub-Total					1000	

6.3.2 Laboratory Assessment

S.No	Kolb Cycle Phase	Assessment Tool	Remarks	Student submissions	Points	Total
1	CE	Lab Participation	Weekly evaluation	0	10	100
2	RO	Lab quiz	Mid Term	2	50	100
3	AC	Lab Reflective Journal (Lab Report)	Every week	10	20	200
4	AE	LabTest(Open lab / Capstone Lab)	End of Term	1	100	100
Total						500

6.3.3 Practice Assessment

S.No	Kolb Cycle Phase	Assessment Tool	Student submissions	Points	Total
1	CE	Peer evaluation	1	100	100
2	RO	Survey report	1	100	100
3	AC	Practice assignment	2	100	200
4	AE	Study report	1	100	100
Total					500

6.3.4 Course Project Assessment

S.No	Kolb's cycle phase	Assessment Tool	Points
Assessment for Learning			
1	AE	Precedent study	25
2		Literature Survey	50
3		Project Design	75
4		Project Implementation	75

5		Project Report	75
Assessment of Learning			
1	AE	Project Demonstration	75
2		Project Presentation	75
3		Creativity and innovation	25
4		Community impact	25
Total			500

6.3.5 Internship

The Curriculum includes the Internship for Students of 10 weeks hours duration Year I Term IV. The internship experience will augment outcome-based learning process and inculcate various attributes in a Student. Internships are educational and Career Development opportunities providing practical experience in a field or discipline. The students shall undertake the Internship continuously for atleast 22 hours per week in any Industry/ organization after seeking due approval from the Head of the Department. The award of credits for the Internship during summer shall be evidenced in the Term IV Transcript. The detailed procedure is be available in the University approved Internship Policy.

6.3.6 Capstone Project

The Students are required to do Project work in any area of Computer Applications under the guidance of Internal Faculty member assigned to the student. The Project work consists of choosing a Topic/Problem/Theme in any area of software, web, app, cloud, AI, Data Science, cyber security technologies etc.

- (a) Every Student shall do individual Project work under the supervision of a Faculty.
- (b) The supervisor shall be assigned to the Student by the department during the Year II Term II to enable the student to plan and carry out the work during Term III and Term IV
- (c) The Project work is divided into Part-1 and Part-2, Part-1 to be carried out in Year II Term III and is assigned seven (7) Credits and evaluated for 500 marks, Part-2 to be carried out in Year II Term IV semester and is assigned thirteen (13) Credits and evaluated for 1000 marks.
- (d) The Project work must be submitted by the student in the 08th week of the term IV.
- (e) The dissertation must be typed and be limited to 70 to 100 pages of A4 size and in standard format which is prescribed by the department.
- (f) The Project guidelines and the assessment procedure is given in the University approved Capstone Project Policy.

6.4 **Research Education Activities:** The activities shall be assessed based on evidence submitted by the candidate. The school shall allot prescribed credits upon satisfactory submissions.

6.5 **External Certifications Courses:** There shall be no assessment by the University for these courses; however the candidate shall appear for the said certification examinations and qualify. Submission of such certifications shall lead to the award of prescribed credits.

- 6.6 **Foreign Language Certifications Courses:** There shall be no assessment by the University for these courses; however the candidate shall appear for the said certification examinations and qualify. Submission of such certifications shall lead to the award of prescribed credits.

7. GRADING SYSTEM

- 7.1 The following is the grading system for the Core Education Components.

S. No	Score Points		Grade Point	Letter Grade
	From	To		
1	1950	2000	4	A+
2	1900	1949	3.9	A
3	1850	1899	3.8	A-
4	1800	1849	3.7	AB
5	1750	1799	3.6	B+
6	1700	1749	3.5	B
7	1650	1699	3.4	B-
8	1600	1649	3.3	BC
9	1550	1599	3.2	C+
10	1500	1549	3.1	C
11	1450	1499	3	C-
12	1400	1449	2.9	CD
13	1350	1399	2.8	D+
14	1300	1349	2.7	D
15	1250	1299	2.6	D-
16	1200	1249	2.5	DE
17	Below 1200			Fail

- 7.2 For each course, the candidate shall secure a minimum of 60% to be declared as qualified, upon which a corresponding letter grade and equivalent credit will be awarded.

- 7.3 **Grade Points (GP):** The candidate earns grade points (GP) in each course, on the basis of the letter grade secured in that course. The corresponding 'credit points '(CP) are computed as follows:

Credit Points (CP) = Grade Points (GP) x Credits for each course.

A candidate qualifies for a Pass only when $GP \geq 6$ ('D' grade or above).

- 7.4 **Term Grade Point Average (TGPA) :** The Term Grade Point Average (TGPA) is calculated by dividing the sum of credit points (ΣCP) secured from all courses registered in a term, by the total number of credits registered during that term. TGPA is rounded off to two decimal places and is computed as

$$TGPA = \frac{\{\sum_{i=1}^N C_i G_i\}}{\{\sum_{i=1}^N C_i\}} \text{ for each term,}$$

Where 'i' is the course indicator index (takes into account all courses in a term), 'N' is the number of courses 'registered' for the term, 'C_i' is the number of credits allotted to the 'ith' subject, and 'G_i' represents the grade points (GP) corresponding to the letter grade awarded for that 'ith' subject.

- 7.5 **Cumulative Grade Point Average (CGPA):** The Cumulative Grade Point Average (CGPA) is a measure of the overall cumulative performance of a candidate in all terms considered for registration. The CGPA is the ratio of the total credit points secured by a candidate in all registered courses in all the eight terms, and the total number of credits registered in these terms. CGPA is rounded off to two decimal places.

$$CGPA = \frac{\left\{ \sum_{j=1}^M C_j G_j \right\}}{\left\{ \sum_{j=1}^M C_j \right\}}$$

Where 'M' is the total no. of courses a candidate has, 'j' is the course indicator index (takes into account all courses), 'C_j' is the number of credits allotted to the 'jth' course, and 'G_j' represents the grade points (GP) corresponding to the letter grade awarded for that 'jth' course.

- 7.6 Candidate shall secure a minimum CGPA of 6.0 and above for successful completion of first year of the programme.
- 7.7 In case, a candidate is unable to qualify a course in any term, he/she shall be given time till the next term to complete the same.

8. ACADEMIC HOLDS

Students shall maintain the minimum required credits per term for the duration of the program. The following holds shall be applicable, if not maintained:

- 8.1 **Academic Warning:** A candidate who fails to secure the minimum prescribed credits in a particular term and/or a minimum CGPA 2.5 shall be issued an academic warning. Upon securing the prescribed credits, the Academic Warning shall be revoked. The maximum duration of the hold shall be one term.
- 8.2 **Academic Probation:** A candidate who fails to secure the requisite credits beyond the period of academic warning shall be liable to be put on Academic Probation. Upon securing the prescribed credits, the Academic Probation shall be revoked. The maximum duration of the hold shall be one term.
- 8.3 **Academic Suspension:** A candidate who fails to secure the requisite credits beyond the period of academic probation shall be liable to be put on Academic Suspension. Upon securing the prescribed credits, the Academic Suspension shall be revoked. The maximum duration of the hold shall be one year.
- 8.4 **Academic Dismissal:** A candidate who fails to secure the requisite credits beyond the period of Academic Suspension shall be liable for Academic Dismissal, and the admissions stand cancelled. However, the candidate can appeal to the School Dean to reconsider the case and put forth his/her defense. The decision of the School Dean shall be final.
- 8.5 **Readmission:** A candidate whose admission is cancelled due to Academic Dismissal shall seek readmission into the programme as per the regulations existing in force.

9. PROMOTION

The minimum credits required for promotion to each term shall be as follows:

Term	Term Credits	Cumulative Credits	Minimum Cumulative Credits for Promotion (in %)	Minimum Cumulative Credits for Promotion	Academic Holds			
					Academic Warning	Academic Probation	Academic Suspension	Academic Dismissal
Year I								
Term I	17	17	60	10	<60% credits	-	-	-
Term II	20	37	60	22	<60% credits	<60% credits and on Academic Warning already	-	-
Term III	20	57	60	34	<60% credits	<60% credits and on Academic Warning already	<60% credits and on Academic Probation already	-
Term IV	21	78	60	47	-	-	<60% credits	<60% credits and on Academic Suspension already
Year II								
Term I	18	96	70	67	<70% credits	-	-	-
Term II	22	118	70	83	<70% credits	<70% credits and on Academic Warning already	-	-
Term III	18	136	80	109	<80% credits	<80% credits and on Academic Warning already	<80% credits and on Academic Probation already	-
Term IV	19	155	100	155	-	-	<100% credits	-

10. AWARD OF DEGREE

Any student who have secured 155 credits are eligible for the award of MCA Degree. A provisional Certificate (PC) shall be issued that will be valid till the convocation is held by the University for the respective batch. The original degree certificate shall be issued at the convocation.

11. AWARD OF GOLD MEDAL

A Student securing highest CGPA in single attempt is eligible for award of Gold Medal in the Course of study of MCA

12. INTELLECTUAL PROPERTY RIGHTS

12.1 **Publication of Dissertation:** Any student publishing his/her Research work shall have the supervisor(s) of the University as co-author.

- 12.2 **Copyrights:** All the copyrights pertaining to the Project/Research work carried out by a student shall be the joint claim of the student and the supervisor(s) of the University.
- 12.3 **Patents:** Any patent applied for the Project/Research work carried out by a student shall be the joint claim of the student and the supervisor(s) of the University.

13. EXCEPTIONS

There shall be exceptions to the regulations as mentioned under;

- 13.1 Notwithstanding anything stated in these regulations, the Academic Council can make special provisions and exceptions depending on the merit of a case. Such cases shall not be cited as precedence in future occasions of similar nature.
- 13.2 In emergency situations, the Academic Council can exercise powers and discharge the functions of the Council. Such decisions must be reported to the Executive Council at its next.
- 13.3 The Vice-Chancellor shall be the final decision-making authority for exercising any of the exceptions which shall be final and binding.

14. GENERAL CLAUSES

- 14.1 **Regulation Revisions:** The University may revise these regulations subject to Academic Council approval.
- 14.2 **Code of Conduct:** All students must abide by the University code of conduct.
- 14.3 **Authority for Interpretation:** The Vice-Chancellor's decision shall be final in case of disputes regarding interpretation of regulations.

15. ADMISSION TRANSFER/ EXIT POLICY

- i. In any case a student wishes to transfer the admission to any other institution or exit after Year I, he/she can apply to the School Dean in Year I term IV with a request duly endorsed by parent.
- ii. The Tuition fee for Year I shall be cleared along with any other pending fee, if applicable
- iii. NoC for admission transfer / Exit shall be issued upon submission of No Due Certificate from Finance office.