

BABASAHEB BHIMRAO AMBEDKAR UNIVERSITY

DEPARTMENT OF COMPUTER SCIENCE

MASTER OF COMPUTER APPLICATION (MCA)- TWO YEAR FULL TIME

W.E.F.2024-25

FIRST YEAR

1st Semester

Total Semester Credit-24(Departmental Credit-20, CBCS Credit-4)

244/e

Entry	Paper Code	Paper Title	Paper Type	Credit	Exit
	MCA-101	Computer Architecture	Core	03	
	MCA-102	Discrete Structure	Foundation Compulsory	03	
	MCA 103	Object Oriented Programming & C++	Core	04	
	MCA-104	Computer Based Numerical & Statistical Techniques	Core	03	
	MCA-105	System Programming	Core	03	
	MCA-106	Programming Lab-I (based on MCA-103 &MCA-104)	Core	04	
		Open Elective Paper-I*	Open elective	04	
	MCA-107	Community Engagement		Non Credit	

*Student shall register for this course from other department of the University

Note: Department offer "MCAOE-101(A) Computer Fundamental and Organization or MCAOE-101(B) Introduction To Computer Networks" of 04 credits under CBCS for the students of other departments in the University.

2nd Semester

Total Semester Credit-24(Departmental Credit-20, CBCS Credit-04)

Entry	Paper Code	Paper Title	Paper Type	Credit	Exit
	MCA-201	Graph Theory and Combinatorics	Core	03	First Exit Post Graduate Diploma in Computer Application
	MCA-202	Software Engineering	Foundation compulsory	03	
	MCA 203	Data Structure	Core	04	
	MCA-204	Database Management System	Core	03	
	MCA-205	Operating System	Core	03	
	MCA-206	Programming Lab-II (Based on MCA-203 &MCA-204)	Core	04	
		Open Elective Paper-II*	Open Elective	04	

*Student shall register for this course from other department of the University

Note: Department offer "MCAOE-201(A) Programming in C or MCAOE-201(B) Introduction to IoT" of 04 credit under CBCS for the students of other departments in the University.

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3rd Semester

Total Semester Credit-24

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Entry	Paper Code	Paper Title	Paper Type	Credit	Exit
Subject to availability of seats and credit equivalence	MCA-301	Compiler Design	Core	03	
	MCA-302	Analysis and Design of Algorithm	Foundation Compulsory	03	
	MCA 303	Data Communication & Computer Network	Core	04	
	MCA-304	Internet and Java Programming	Core	03	
	MCA-305	Computer Graphics	Core	04	
	MCA-306	Python Programming	Core	02	
	MCA-307	Programming lab-III (Based on MCA-304 & MCA-306)	Core	03	
	MCA-308	Technical Writing and Seminar	Foundation	02	

4th Semester

Total Semester Credit-24

Entry	Paper Code	Paper Title	Paper Type	Credit	Exit	
	MCA-401	Artificial Intelligence	Core	04	Final Exit with Degree in Master of Computer Applications	
	MCA-402(A) MCA-402(B) MCA-402(C) MCA-402(D) MCA-402(E) MCA-402(F) MCA-402(G)	Elective paper-I		Elective		04
		Distributed Computing				
		Machine Learning				
		Soft Computing				
		Parallel Computing				
		Digital Image Processing				
		Data Analytics				
	Cyber Security					
	MCA-403(A) MCA-403(B) MCA-403(C) MCA-403(D) MCA-403(E) MCA-403(F) MCA-403(G)	Elective paper-II		Elective		04
		Natural Language Processing				
		Software Quality Management				
		Computer Based Optimization Techniques				
		Data Mining				
		Mobile Computing				
Neural Network Modeling and Simulation						
MCA-404	Project	Core	12			

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