Details of Course Structure : MCA

● **Summary of Credits and Total Marks :**

Sem	MCA	
	Total Credits (TH+PR /OR/TU)	**Total Marks**
I	22	750
II	22	750
III	24	800
IV	22	400
Total	**90**	**2700**

● **Definition of Credit :**

The Under Graduate (U.G.) and Post Graduate (P.G.) programmes will have credit system. The details of credit will be as follow

1 Credit = 1 hour/week for lecture
= 2 hours /week for practical
= 1 hour /week for tutorial

. ● **Course Nomenclature :**

- Each Course offered in the MCA curriculum shall be listed by using Nine Characters, the First three being letters and the remaining Six being numerals, as follows:
- The first three characters will represent the Department offering the Programme in abbreviated form, e.g., MCA for Master of Computer Application.
- The 4th and 5th characters will represent the calendar year of the curriculum revision. The 6th character will represent semester such as 1, 2, 3 and 4.
- The 7th character will represent specialization. In MCA curriculum there is no specialization, so this character will be 0.
- Last two characters will represent the Course Number allotted for the subject by the Department, i.e., 01, 02, 03,..etc
- Thus, as an example, courses offered at the Department of MCA could be listed from MCA221001 to MCA224003.

● **Description of various Courses:**

Type of Course	Description
DCC	Department Core Course
DEC	Department Elective Course
OEC	Open Elective Courses of other technical or emerging areas /Courses designed by Industry /Online Courses
PSI	Project work, Seminar, Internship, PBL
LHSM	Liberal arts, Humanities, Social Sciences and Management courses
NC	Non credit Course

● **Abbreviations :**

FY : First Year	SY : Second Year	ISE : In Sem Exam	ESE : End Sem Exam
TH : Theory	PR : Practical	TU : Tutorial	OR : Oral
CCE: Continuous Comprehensive Evaluation	TW: TermWork	MOOCs : Massive Open Online Courses	
NPTEL : National Programme on Technology Enhanced Learning			

Course Code	Course Type	Title of Course	Teaching Scheme Hrs./week			Evaluation Scheme and Marks						Credits			
			TH	TU	PR	In Sem	End Sem	CCE	TW/ TU	PR	Total	TH	TW /TU	PR	Total
MCA221001	DCC	Discrete Mathematics	3	-	-	20	60	20	-	-	100	3	-	-	3
MCA221002	DCC	Data Structures and Algorithms	3	-	4	20	60	20	50	50	200	3	-	2	5
MCA221003	DCC	Data Communication and Network	3	-	-	20	60	20	-	-	100	3	-	-	3
MCA221004	DCC	Web Technology	3	-	2	20	60	20	25	50	175	3	-	1	4
MCA221005	DCC	Software Engineering	3	-	-	20	60	20	-	-	100	3	-	-	3
MCA221006	DCC	Python Programming	1	1	2	-	-	-	50*	-	50	1	1	1	3
MCA221007	LHSM	Business Communication	-	-	2	-	-	-	25	-	25	-	-	1	1
		Total	**16**	**1**	**10**	**100**	**300**	**100**	**150**	**100**	**750**	**16**	**1**	**5**	**22**

*50 Marks is divided as 25 marks for Term Work and 25 marks for Tutorial

K.K.Wagh Institute of Engineering Education and Research, Nashik (Autonomous)
Master of Computer Application
Details of Course Structure: Semester - II   F.Y.M.C.A.

Course Code	Course Type	Title of Course	Teaching Scheme Hrs./week			Evaluation Scheme and Marks						Credits			
			TH	TU	PR	In Sem	End Sem	CCE	TW/ TU	PR	Total	TH	TW / TU	PR	Total
MCA222001	DCC	Object Oriented Programming	4	-	4	20	60	20	50	50	200	4	-	2	6
MCA222002	DCC	Database Management System	3	-	4	20	60	20	50	50	200	3	-	2	5
MCA222003	DEC	Elective I A : Artificial Intelligence B: Information Retrieval C: Augmented Reality and Virtual Reality	3	-	2	20	60	20	25	-	125	3	-	1	4
MCA222004	DCC	Advanced Web Technology	3	-	2	20	60	20	25	-	125	3	-	1	4
MCA222005	DCC	UI/UX Design	3	-	-	20	60	20	-	-	100	3	-	-	3
MCA222006	NC	Audit Course A : Entrepreneurship Management B: Foreign Language C: College to Corporate D: Environmental Studies	-	-	-	-	-	-	-	-	-	-	-	Grade	-
		Total	**16**	**-**	**12**	**100**	**300**	**100**	**150**	**100**	**750**	**16**	**-**	**6**	**22**

Course Code	Course Type	Title of Course	Teaching Scheme Hrs./week			Evaluation Scheme and Marks						Credits			
			TH	TU	PR	In Sem	End Sem	CCE	TW/ TU	PR	Total	TH	TW/ TU	PR	Total
MCA223001	DCC	Data Science	3	-	2	20	60	20	25	-	125	3	-	1	4
MCA223002	DCC	Machine Learning	3	-	4	20	60	20	50	50	200	3	-	2	5
MCA223003	DCC	Cloud Computing	3	-	-	20	60	20	-	-	100	3	-	-	3
MCA223004	DEC/ OEC	Elective II A: Information and Network Security B: Current Trends in Computing C: Industry Elective	3	-	-	20	60	20	-	-	100	3	-	-	3
MCA223005	DCC	Software Project Management and Testing	4	-	4	20	60	20	50	50	200	4	-	2	6
MCA223006	LHSM	Introduction to Constitution	2	-	-	-	30	20	-	-	50	2	-	-	2
MCA223007	PSI	Mini Project	-	-	2	-	-	-	25	-	25	-	-	1	1
		Total	**18**	**-**	**12**	**100**	**330**	**120**	**150**	**100**	**800**	**18**	**-**	**6**	**24**

Master of Computer Application
Details of Course Structure: Semester - IV   S.Y.MCA

Course Code	Course Type	Title of Course	Teaching Scheme Hrs./week			Evaluation Scheme and Marks						Credits			
			TH	TW/ TU	PR-OR	In Sem	End Sem	CCE	TW/ TU	PR-OR	Total	TH	TW/ TU	PR-OR	Total
MCA224001	PSI	Major Project	-	-	18	-	-	-	100	200	300	-	-	18	18
MCA224002	PSI	Technical Seminar	-	-	4	-	-	-	50	-	50	-	-	2	2
MCA224003	PSI	Research Paper / MOOC	-	-	4	-	-	-	50	-	50	-	-	2	2
		Total	**-**	**-**	**26**	**-**	**-**	**-**	**200**	**200**	**400**	**-**	**-**	**22**	**22**