



**K.K. Wagh Institute of Engineering Education and
Research, Nashik**

MCA Programme Structure
(As per NEP 2020)

w. e. f.: A.Y. 2026-2027



K. K. Wagh Institute of Engineering Education and Research, Nashik (Autonomous w. e. f. A.Y.2022-23)
Details of Course Structure: MCA w. e. f. A.Y. 2026-27

• Summary of Credits and Total Marks for MCA Programme :

Semester	Credits	Marks
I	22	700
II	22	700
III	22	700
IV	22	500
Total	88	2600

• 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

• Abbreviations: TH: Theory, PR: Practical, TU: Tutorial, OR: Oral, TW: Term work, INT: Internal Evaluation , EXT: External Evaluation

• Description of various Courses:

Type of Course	Description	Type of Course	Description
PCC	Programme Core Course	OJT	On Job Training / Internship
PEC	Programme Elective Course	RP	Research Project
RM	Research Methodology	AEC	Ability Enhancement Course
HSSM	Humanities, Social Science and Management	VSEC	Vocational and Skill Enhancement Course



K.K.Wagh Institute of Engineering Education and Research, Nashik (Autonomous w.e.f. A.Y.2022-23)

Details of Course Structure: First Year MCA (2026 Pattern) Semester: I

Board of Studies in MCA

Course Code	Course Type	Title of Course	Teaching Scheme Hrs./week			Evaluation Scheme and Marks								Credits			
			TH	TU	PR	In Sem	End Sem	CCE	TU	TW	PR	OR	Total	TH	TU	PR	Total
2609501	PCC	Discrete Mathematics	3	-	-	20	50	30	-	-	-	-	100	3	-	-	3
2609502	PCC	Data Structures and Algorithms	3	-	4	20	50	30	-	25	50	-	175	3	-	2	5
2609503	PCC	Web Technologies	3	-	-	20	50	30	-	-	-	-	100	3	-	-	3
2609504	PEC	Elective-I	3	-	-	20	50	30	-	-	-	-	100	3	-	-	3
2609505	RM	Research Methodology	3	-	-	20	50	30	-	-	-	-	100	3	-	-	3
2609506	PCC	Computer Lab	-	1	2	-	-	-	25	25	-	-	50	-	1	1	2
2609507	PCC	Python Programming	-	-	2	-	-	-	-	25	-	-	25	-	-	1	1
2609508	AEC	Digital Communication and Presentation Lab	-	-	2	-	-	-	-	25	-	-	25	-	-	1	1
2609509	HSSM	MOOC-I on Human Rights	1	-	-	-	-	25	-	-	-	-	25	1	-	-	1
Total			16	1	10	100	250	200	25	75	50	0	700	16	1	5	22

Elective -I	
Course Code	Title of Course
2609504A	Cloud Computing
2609504B	UI-UX Design
2609504C	Green IT



K.K.Wagh Institute of Engineering Education and Research, Nashik (Autonomous w.e.f. A.Y.2022-23)
Details of Course Structure: First Year MCA (2026 Pattern) Semester: II

Board of Studies in MCA

Course Code	Course Type	Title of Course	Teaching Scheme Hrs./week			Evaluation Scheme and Marks								Credits			
			TH	TU	PR	In Sem	End Sem	CCE	TU	TW	PR	OR	Total	TH	TU	PR	Total
2609511	PCC	Artificial Intelligence	3		-	20	50	30	-	-	-	-	100	3		-	3
2609512	PCC	Database Systems and NoSQL	3	-	4	20	50	30	-	25	50	-	175	3	-	2	5
2609513	PCC	Cyber Security	3	-	2	20	50	30	-	25	-	-	125	3	-	1	4
2609514	PEC	Elective-II	3	-	-	20	50	30	-	-	-	-	100	3	-	-	3
2609515	HSSM	Management Information System	3	-	-	20	50	30	-	-	-	-	100	3	-	-	3
2609516	AEC	Technical Seminar	-	-	2	-	-	-	-	25	-	-	25	-	-	1	1
2609517	OJT	On Job Training / Industrial Internship	-	-	-	-	-	-	-	25	-	25	50	-	-	2	2
2609518	HSSM	MOOC-II on Human Rights	1	-	-	-	-	25	-	-	-	-	25	1	-	-	1
		Total	16	0	8	100	250	175	0	100	50	25	700	16	0	6	22

Elective -II

Course Code	Title of Course
2609514A	Operation Research
2609514B	Operating System
2609514C	Emerging Technologies



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Details of Course Structure: First Year MCA (2026 Pattern) Semester: III

Board of Studies in MCA

**Exit courses recommended for MEME at First Year MCA for availing
PG Diploma in Computer Applications (PGDCA)**

Course Code	Cours e 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	TU	PR	Total
2609E1A	AEC	Block chain Technology	3	-	-	-	100	-	-	-	-	100	3	-	-	3
2609E1B		Business Intelligence and Analytics														
2609E1C		Machine Learning														
2609E1D		Software Testing														
Total			3	-	-	-	100	-	-	-	-	100	3	-	-	3

Note:

- Candidate need to complete anyone of the above mentioned Online MOOC Course of 3 credits
- The Candidate will have to submit Certificate of Passing
- The marks obtained in the respective online MOOC platform will be treated as End Sem Examination marks.



K.K.Wagh Institute of Engineering Education and Research, Nashik (Autonomous w.e.f. A.Y.2022-23)
Details of Course Structure: First Year MCA (2026 Pattern) Semester: III

Board of Studies in MCA

Course Code	Course Type	Title of Course	Teaching Scheme Hrs./week			Evaluation Scheme and Marks								Credits			
			TH	TU	PR	In Sem	End Sem	CCE	TU	TW	PR	OR	Total	TH	TU	PR	Total
2609601	HSSM	Introduction to Constitution	2	-	-	-	-	50	-	-	-	-	50	2	-	-	2
2609602	PCC	Full Stack Development	3	-	2	20	50	30	-	25	25	-	150	3	-	1	4
2609603	PCC	Software Engineering and Project Management	3	-	-	20	50	30	-	-	-	-	100	3	-	-	3
2609604	PCC	Machine Learning	3	-	2	20	50	30	-	25	25	-	150	3	-	1	4
2609605	PEC	Elective-III	3	-	-	20	50	30	-	-	-	-	100	3	-	-	3
2609606	PCC	Software Testing	-	1	2	-	-	-	25	25	-	-	50	-	1	1	2
2609607	RP	Research Work	-	-	2	-	-	-	-	25	-	-	25	-	-	1	1
2609608	VSEC	Skill Development : Mobile App Development Lab	-	-	4	-	-	-	-	50	-	-	50	-	-	2	2
2609609	AEC	MOOC-III	1	-	-	-	-	25	-	-	-	-	25	1	-	-	1
			15	1	12	80	200	195	25	150	50	-	700	15	1	6	22

Elective -III	
Course Code	Title of Course
2609605A	Entrepreneurship and Innovation
2609605B	Industry Elective
2609605C	Data Visualization and BI Tools



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Details of Course Structure: First Year MCA (2026 Pattern) Semester: IV

Board of Studies in MCA

Course Code	Course Type	Title of Course	Teaching Scheme Hrs./week			Evaluation Scheme and Marks								Credits			
			TH	TU	PR	In Sem	End Sem	CCE	TU	TW	PR	OR	Total	TH	TU	PR	Total
2609611	OJT	Industrial Training/Internship	-	-	-	-	-	-	-	100	-	150	250	-	-	10	10
2609612	AEC	Research Paper	-	-	4	-	-	-	-	50	-	-	50	-	-	2	2
2609613	AEC	Skill Development: MOOCs	2	-	-	-	-	50	-	-	-	-	50	2	-	-	2
2609614	RP	Project Work	-	-	16	-	-	-	-	50	-	100	150	-	-	8	8
		Total	2	-	20	-	-	50	-	200	-	250	500	2	-	20	22