

At Post Mahiravani, Trimbak Road, Nashik-422213, Maharashtra https://www.sandipuniversity.edu.in

School of Computer Sciences and Engineering

Department of Computer Science and Application

-NEP-2020 Course Structure-

Programme Name: - Master Computer Application (MCA)
Semester - I (Level 6.0)
Batch: AY 24-25 onwards

		Course Code	Course Name	Teaching Scheme (Hrs./Week)				Examination Scheme				Total
Sr. No.	Core			L	Т	P	С		native ssment (A	Asses	Summative Assessment ESE	
								Course	Lab	Course	Lab	
1	UC	NRDP101	Research Methodology	4	-	-	4	50	-	100	-	100
2	PC	INPMC101	Advanced Database Management System	3	1	-	3	50	-	100	ı	100
3	PC	NPMC102	Web Technologies	3	-	-	3	50	-	100	-	100
4	PC	INPMC103	Advanced Software Engineering	3			3	50		100		100
5	PC	NPMC111	Lab course based on ADBMS	1	ı	4	2	-	50	-	50	100
6	PC	NPMC112	Lab course based on WEB Technologies	ı	-	4	2	-	50	-	50	100
7	PE	NPMCE	Programme Elective-I	4	-		4	50	-	100	ı	100
	TOTAL				-	8	21	250	50	500	50	700

				Formative Assessment
		CIA	Weightage	Description
	UC : University Core	CIA 1	10%	Home Assignment
CIA: Continuous Internal Assessment	PC : Programme Core PE : Programme Elective	CIA 2	20%	Written Exam
L: Theory Lecture T: Tutorial	FP: Field Project OJT:On-Job Training RP: Research Project	CIA 3	10%	Activity/Project & research based learning along with seminar presentation
P: Practical ESE: End Semester Exam		CIA 4	10%	Behavioral Attitude +General Discipline Theory +Practical attendance
		TOTAL	50%	
Written Examination	– End Semester Exam (ESE)	50%	
		100%		

BOS	Dean	Associate Dean	Registrar
Chairperson	SOCSA	Academics	SUN

Document Reference	Revision No. / Date	Prepared By	Approved By
SUN/SOCSE/Application/MCA/ Sem-/2024-25	R /5 th July 2024		



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School of Computer Sciences and Engineering

Department of Computer Science and Application

-NEP-2020 Course Structure-

Programme Name: - Master of Computer Application (MCA)

Batch: AY 24-25 onwards Semester - II (Level 6.0)

	Sem	ester – II	(Level 6.0)			В	atci	1: AY 2				
Sr.				Teaching Scheme (Hrs./Week)				Examination Scheme				Total Marks
No.	Core	Course Code	Course Name	L	т	P	P C			Summative t Assessment ESE		
								Course	Lab	Course	Lab	
1	PC	I NPMC201	Advanced Java Programming	3	ı	ı	3	50	ı	100		100
2	PC	INPIVIL 202	Mobile Application Development	3	ı	ı	3	50	I	100	-	100
3	PC	NPMC203	Software testing & Quality Assurance	3	-	1	3	50	-	100	-	100
4	PC	LNPMC211	Lab Course Based on Advanced Java	ı	ı	4	2	-	50	ı	50	100
5	PC	NPMC212	Lab Course Based on Mobile Application Development	-	-	4	2	-	50	-	50	100
6	PE	NPMCE	Programme Elective-II	4	-	-	4	50	-	100	-	100
7	PC	NPMC213	On- Job Training/ Field Project	-	-	8	4	-	100	-	100	200
		T	OTAL	13	-	16	21	200	200	400	200	800

				Formative Assessment
		CIA	Weighta ge	Description
	UC : University Core	CIA 1	10%	Home Assignment
CIA: Continuous	PC : Programme Core PE : Programme Elective	CIA 2	20%	Written Exam
Internal Assessment L: Theory Lecture	OE: Open Elective FP: Field Project OJT: On-Job Training RP: Research Project	CIA 3	10%	Activity/Project & research-based learning along with seminar presentation
T: Tutorial P: Practical		CIA 4	10%	Behavioral Attitude +General Discipline Theory +Practical attendance
ESE : End Semester Exam		TOTAL	50%	
Written Examinatio	n – End Semester Exam	(ESE)	50%	
	TOTAL		100%	

Exit option: PG Diploma 42 Credits after Three Year UG Degree (with additional 4 credits of Internship)

> BOS Dean Associate Dean Registrar SUN Chairperson **SOCSA** Academics

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School of Computer Sciences and Engineering

Department of Computer Science and Application

-NEP-2020 Course Structure-

Programme Name: - Master of Computer Application (MCA)
Semester - III (Level 6.5)
Batch: AY 24-25 onwards

Q	Core			Teaching Scheme (Hrs./Week)				Examination Scheme				Total
Sr. No.		Course Code	Course Name	L	Т	P	С	Formative Assessment CIA		Summative Assessment ESE		Marks
								Course	Lab	Course	Lab	
1	PC	NPMC301	Advanced Python Programming	4	-	1	4	50	-	100	0	100
2	PC	NPMC302	Artificial Intelligence and Machine Learning	4	-	ı	4	50	-	100	0	100
3	PC	NPMC303	Cloud Computing	4	_	-	4	50	-	100	0	100
4	PC	NPMC311	Lab course based on Advanced Python programming	-	-	4	2	-	50	-	50	100
5	PC	NPMC312	Lab course based on AIML	-	-	4	2	-	50	-	50	100
6	PE	NPMCE	Programme Elective-III	ı	-	8	4	-	50	-	50	100
7	PC	NPMC313	Research Project-I	ı	-	8	4	-	100	-	100	200
	TOTAL			12	-	24	24	150	250	300	250	800

			Formative Assessment							
		CIA	Weighta ge	Description						
	UC: University Core	CIA 1	10%	Home Assignment						
CIA: Continuous Internal Assessment	PC : Programme Core PE : Programme Elective	CIA 2	20%	Written Exam						
L: Theory Lecture T: Tutorial	OE: Open Elective FP: Field Project OJT: On-Job Training RP: Research Project	CIA 3	10%	Activity/Project & research-based learning along with seminar presentation						
P: Practical ESE: End Semester		CIA 4	10%	Behavioral Attitude +General Discipline Theory +Practical attendance						
Exam		TOTAL	50%							
Written Examination	– End Semester Exam (ESE)	50%							
	TOTAL	100%								

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School of Computer Sciences and Engineering

Department of Computer Science and Application

-NEP-2020 Course Structure-

Programme Name: - Master of Science (Mathematics)

Semester – IV (Level 6.5)

Batch: AY 24-25 onwards

				\$	each Sche rs./V	me		Examination Scheme				<i>m</i> -4-1
Sr No	Core	Course Code	Course Name	L	L T	T P	P C	Formative Assessment CIA		Summative Assessment ESE		Marks
								Course	Lab	Course	Lab	
1	PC	NPMC411	Research Project -II	0	0	36	18	-	200	-	200	400
	TOTAL			00	00	36	18		200		200	400

		Formative Assessment		
CIA: Continuous Internal Assessment L: Theory Lecture T: Tutorial P: Practical ESE: End Semester Exam	UC: University Core PC: Programme Core PE: Programme Elective OE: Open Elective FP: Field Project OJT: On-Job Training RP: Research Project	CIA	Weighta ge	Description
		CIA 1	10%	Home Assignment
		CIA 2	20%	Written Exam
		CIA 3	10%	Activity/Project & research-based learning along with seminar presentation
		CIA 4	10%	Behavioral Attitude +General Discipline Theory +Practical attendance
		TOTAL	50%	
Written Examination – End Semester Exam (ESE)			50%	
TOTAL			100%	

Exit Option: Award of PG Degree with 84 Credits after Three Year UG Degree.

BOS Chairperson Dean SOCSA Associate Dean Academics

Registrar SUN

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Batch: AY 24-25 onwards

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Department of Computer Science and Application

-NEP-2020 Course Structure-Programme Name: - Master Computer Application (MCA)

List of Program Elective

Sr. No.	Course Code	Name of the course	Semester
1	NPMT104	Mathematical logic combination and graph theory	I
2	NPMCE01	Big Data Analytics	
3	NPMCE02	Foundations of Data Science	II
4	NPMCE03	Advanced Cyber Security and Digital Forensics	
6	NPMCE04	Container Technologies: Docker and Kubernetes	III
7	NPMCE05	Data Visualization and Analytics with TensorFlow and Power BI	

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