

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**

Sr. No.	Core	Course Code	Course Name	Teaching Scheme (Hrs./Week)				Examination Scheme				Total Marks
				L	T	P	C	Formative Assessment CIA		Summative Assessment ESE		
								Course	Lab	Course	Lab	
1	UC	NRDP101	Research Methodology	4	-	-	4	50	-	100	-	100
2	PC	NPMC101	Advanced Database Management System	3	-	-	3	50	-	100	-	100
3	PC	NPMC102	Web Technologies	3	-	-	3	50	-	100	-	100
4	PC	NPMC103	Advanced Software Engineering	3			3	50		100		100
5	PC	NPMC111	Lab course based on ADBMS	-	-	4	2	-	50	-	50	100
6	PC	NPMC112	Lab course based on WEB Technologies	-	-	4	2	-	50	-	50	100
7	PE	NPMCE_	Programme Elective-I	4	-	-	4	50	-	100	-	100
TOTAL				17	-	8	21	250	50	500	50	700

		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 FP: Field Project OJT: On-Job Training RP: Research Project	CIA	Weightage	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%	

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Dean
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Associate Dean
Academics

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

School of Computer Sciences and Engineering

Department of Computer Science and Application

-NEP-2020 Course Structure-

Programme Name: - Master of Computer Application (MCA)

Semester – II (Level 6.0)

Batch: AY 24-25 onwards

Sr. No.	Core	Course Code	Course Name	Teaching Scheme (Hrs./Week)				Examination Scheme				Total Marks
				L	T	P	C	Formative Assessment CIA		Summative Assessment ESE		
								Course	Lab	Course	Lab	
1	PC	NPMC201	Advanced Java Programming	3	-	-	3	50	-	100		100
2	PC	NPMC202	Mobile Application Development	3	-	-	3	50	-	100	-	100
3	PC	NPMC203	Software testing & Quality Assurance	3	-	-	3	50	-	100	-	100
4	PC	NPMC211	Lab Course Based on Advanced Java	-	-	4	2	-	50	-	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
TOTAL				13	-	16	21	200	200	400	200	800

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

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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**

Sr. No.	Core	Course Code	Course Name	Teaching Scheme (Hrs./Week)				Examination Scheme				Total Marks
				L	T	P	C	Formative Assessment CIA		Summative Assessment ESE		
								Course	Lab	Course	Lab	
1	PC	NPMC301	Advanced Python Programming	4	-	-	4	50	-	100	0	100
2	PC	NPMC302	Artificial Intelligence and Machine Learning	4	-	-	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	-	-	8	4	-	50	-	50	100
7	PC	NPMC313	Research Project-I	-	-	8	4	-	100	-	100	200
TOTAL				12	-	24	24	150	250	300	250	800

		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	Weightage	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%	

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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

Sr. No.	Core	Course Code	Course Name	Teaching Scheme (Hrs./Week)				Examination Scheme				Total Marks
				L	T	P	C	Formative Assessment CIA		Summative Assessment ESE		
								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	Weightage	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.

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-NEP-2020 Course Structure-

Programme Name: - Master Computer Application (MCA)

List of Program Elective

Batch: AY 24-25 onwards

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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