



**JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY KAKINADA**  
**KAKINADA – 533 003, Andhra Pradesh, India**

**MASTER OF COMPUTER APPLICATIONS (MCA)**  
**(For Two-Year PG Programme)**

**COURSE STRUCTURE AND SYLLABUS**  
**For PG – R20**

**MASTER OF COMPUTER APPLICATIONS (MCA)**  
**(For Two-Year PG Programme)**

*(Applicable for batches admitted from 2020-21)*



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**COURSE STRUCTURE**

**I Semester**

S.No	Course Code	Course Name	Category	L	T	P	Credits
1	MCA1101	Business Communication	BS&H	2	0	0	2
2	MCA1102	Mathematical and Statistical Foundations	BS&H	3	0	0	3
3	MCA1103	Computer Organization & Operating Systems	PC	3	1	0	4
4	MCA1104	Data Structures	PC	3	0	0	3
5	MCA1105	Object Oriented Programming with JAVA	PC	3	0	0	3
6	MCA1106	Operating Systems and Linux Lab	PC	0	0	3	1.5
7	MCA1107	Data Structures Lab	PC	0	0	3	1.5
8	MCA1108	JAVA Programming Lab	PC	0	0	3	1.5
9	MCA1109	Socially Relevant Project using Design Thinking	MC	0	0	1	0.5
<b>Total</b>				<b>15</b>	<b>1</b>	<b>10</b>	<b>20</b>

**II Semester**

S.No	Course Code	Course Name	Category	L	T	P	Credits
1	MCA2101	Database Management Systems	PC	3	0	0	3
2	MCA2102	Computer Networks	PC	3	0	0	3
3	MCA2103	Software Engineering and Design Patterns	PC	3	0	0	3
4	MCA2104	Data Warehousing and Mining	PC	3	0	0	3
5	MCA2105	<b>Elective-I</b> <ul style="list-style-type: none"> <li>• No SQL Databases</li> <li>• Design and Analysis of Algorithms</li> <li>• Mobile Application Development</li> <li>• Artificial Intelligence</li> <li>• Accounting for Managers</li> </ul>	PE	3	0	0	3
6	MCA2106	DBMS Lab	PC	0	0	3	1.5
7	MCA2107	Computer Networks Lab	PC	0	0	3	1.5
8	MCA2108	Software Engineering and Design Patterns Lab	PC	0	0	3	1.5
9	MCA2109	Employability Skills	MC	0	0	1	0.5
10	MCA2110	Bridge Course (Python Programming to be taken through MOOCs)	MC	0	0	0	0
<b>Total</b>				<b>15</b>	<b>0</b>	<b>10</b>	<b>20</b>