



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

## **DEPARTMENT OF COMPUTER SCIENCE & ENGINEERING**

### **COURSE STRUCTURE & SYLLABUS M.Tech CSE for COMPUTER SCIENCE & ENGINEERING PROGRAMME** *(Applicable for batches admitted from 2019-2020)*



**JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY KAKINADA**



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**I-SEMESTER**

S.No	Course Code	Courses	Category	L	T	P	C
1	MTCSE1101	<b>Program Core-1</b> Mathematical Foundations of Computer Science	PC	3	0	0	3
2	MTCSE1102	<b>Program Core-2</b> Advanced Data Structures & Algorithms	PC	3	0	0	3
3	MTCSE1103	<b>Program Elective-1</b> 1. Big Data Analytics 2. Digital Image Processing 3. Advanced Operating Systems	PE	3	0	0	3
4	MTCSE1104	<b>Program Elective-2</b> 1. Advanced Computer Networks 2. Internet of Things 3. Object Oriented Software Engineering	PE	3	0	0	3
5	MTCSE1105	<b>Research Methodology and IPR</b>	CC			0	2
6	MTCSE1106	<b>Laboratory-1</b> Advanced Data Structures & Algorithms Lab	LB	0	0	4	2
7	MTCSE1107	<b>Laboratory-2</b> Advanced Computing Lab	LB	0	0	4	2
8	MTCSE1108	<b>Audit Course-1*</b>	AC	2	0	0	0
<b>Total Credits</b>							18

***\*Student has to choose any one audit course listed below.***

**II SEMESTER**

S.No	Course Code	Courses	Category	L	T	P	C
1	MTCSE1201	<b>Program Core-3</b> Machine learning	PC	3	0	0	3
2	MTCSE1202	<b>Program Core-4</b> MEAN Stack Technologies	PC	3	0	0	3
3	MTCSE1203	<b>Program Elective-3</b> 1. Advanced Databases and Mining 2. Ad Hoc & Sensor Networks 3. Soft Computing	PE	3	0	0	3
4	MTCSE1204	<b>Program Elective-4</b> 1. Cloud Computing 2. Principles of computer security 3. High Performance Computing	PE	3	0	0	3
5	MTCSE1205	<b>Laboratory-3</b> Machine Learning with python lab	LB	0	0	4	2
6	MTCSE1206	<b>Laboratory-4</b> MEAN Stack Technologies Lab	LB	0	0	4	2
7	MTCSE1207	<b>Mini Project with Seminar</b>	MP	2	0	0	2
8	MTCSE1208	<b>Audit Course-2 *</b>	AC	2	0	0	0
<b>Total Credits</b>							18



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**Audit Course 1 & 2:**

- |                                       |  |
|---------------------------------------|--|
| 1. English for Research Paper Writing | 5. Constitution of India                                     |
| 2. Disaster Management                | 6. Pedagogy Studies  |
| 3. Sanskrit for Technical Knowledge   | 7. Stress Management by Yoga                                 |
| 4. Value Education                    | 8. Personality Development through Life Enlightenment Skills |

**III-SEMESTER**

S.No	Course Code	Courses	Category	L	T	P	C
1	MTCSE2101	<b>Program Elective-5</b> 1. Deep Learning 2. Social Network Analysis 3. MOOCs-1 (NPTEL/SWAYAM) 12 Week Program related to the programme which is not listed in the course structure	PE	3	0	0	3
2	MTCSE2102	<b>Open Elective</b> 1. MOOCs-2 (NPTEL/SWAYAM)-Any 12 Week Course on Engineering/ Management/ Mathematics offered by other than parent department 2. Course offered by other departments in the college	OE	3	0	0	3
3	MTCSE2103	<b>Dissertation-I/ Industrial Project #</b>	PJ	0	0	20	10
<b>Total Credits</b>							16

*#Students going for Industrial Project/Thesis will complete these courses through MOOCs*

<b>M. Tech. (CSE) IV SEMESTER</b>							
S.No	Course Code	Courses	Category	L	T	P	C
1	MTCSE2201	<b>Dissertation-II</b>	PJ	0	0	32	16
<b>Total Credits</b>							16

**Open Electives offered by the Department of CSE**

1. Python Programming
2. Principles of Cyber Security
3. Internet of Things
4. Machine Learning
5. Digital forensics
6. Next Generation Databases