

JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD
M. Tech. DATA SCIENCE
EFFECTIVE FROM ACADEMIC YEAR 2022 - 23 ADMITTED BATCH
COURSE STRUCTURE AND SYLLABUS (R22)

I YEAR I – SEMESTER

Course Code	Course Title	L	T	P	Credits
Professional Core – I	Advanced Data Structures using Python	3	0	0	3
Professional Core – II	Statistical Foundations for Data Science	3	0	0	3
Professional Elective – I	1. Image and Video Processing 2. Advanced Databases 3. Data wrangling and Visualization	3	0	0	3
Professional Elective- II	1. Ad-hoc and Sensor Networks 2. Social Media Analytics 3. Web and Database Security	3	0	0	3
Lab – I	Advanced Data Structures Lab (using Python)	0	0	4	2
Lab – II	PE-I Lab	0	0	4	2
	Research Methodology & IPR	2	0	0	2
Audit – I	Audit Course – I	2	0	0	0
	Total	16	0	8	18

I YEAR II –SEMESTER

Course Code	Course Title	L	T	P	Credits
Professional Core – III	Big Data Analytics	3	0	0	3
Professional Core – IV	Deep Learning	3	0	0	3
Professional Elective – III	1. Edge Analytics 2. Blockchain Technology 3. Enterprise Cloud Concepts	3	0	2	4
Professional Elective – IV	1. Predictive Analytics 2. Machine Translation 3. Nature Inspired Computing	3	0	0	3
Lab – III	Big Data Analytics Lab	0	0	2	1
Lab – IV	PE-III Lab	0	0	4	2
	Mini Project with Seminar	0	0	4	2
Audit – II	Audit Course – II	2	0	0	0
	Total	14	0	12	18

II YEAR I – SEMESTER

Course Code	Course Title	L	T	P	Credits
Professional Elective – V	1. Digital Forensics 2. Conversational AI 3. Service Oriented Architectures	3	0	0	3
Open Elective	Open Elective	3	0	0	3
Dissertation	Dissertation Work Review – II	0	0	12	6
	Total	6	0	12	12

II YEAR II - SEMESTER

Course Code	Course Title	L	T	P	Credits
Dissertation	Dissertation Work Review – III	0	0	12	6
Dissertation	Dissertation Viva-Voce	0	0	28	14
	Total	0	0	40	20

Note: For Dissertation Work Review - I, Please refer to 7.8 in R22 Academic Regulations.

Audit Course I & II:

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

Open Electives:

1. Statistical Foundations for Data Science
2. Big Data Analytics
3. Advanced Artificial Intelligence
4. Service Oriented Architectures