

PARUL UNIVERSITY
Centre for Distance and Online Education
Master of Computer Application – Online
Program Structure with Credit Points

Semester 1		
Sr. No.	Course title	Credits
1.	Fundamental of Programming	4
2.	Advanced Database Management Systems	4
3.	Operating System and Shell Programming	4
4.	Java Programming	5
5.	Data Structures and Algorithms	4
6.	Professional Communication Skill	4
TOTAL		25
Semester 2		
Sr. No.	Course title	Credits
1.	Advanced Java Programming	5
2.	Data Communication & Networking	4
3.	Open-Source Technology using PHP	4
4.	Advanced Software Engineering	4
5.	Specialization Course - 1	5
6.	Cloud Infrastructure and Services	4
TOTAL		26
Semester 3		
Sr. No.	Course title	Credits
1.	Python Programming	4
2.	Cyber Security	4
3.	Specialization Course - 2	5

4.	Specialization Course – 3	5
5.	Computer Vision	4
6.	Seminar & Minor Project	3
TOTAL		25
Semester 4		
Sr. No.	Course title	Credits
1.	Major Project	18
TOTAL		18
Specialization Pool		
1. Artificial Intelligence / Machine Learning		
Semester 3		
1	Artificial Intelligence & Robotics	5
TOTAL		5
Semester 4		
1	Machine Learning	5
2	Deep Learning	5
TOTAL		10
2. Cybersecurity & Forensic		
Semester 3		
1	Information and Network Security	5
TOTAL		5
Semester 4		
1	Digital Forensics and Cyber Law	5
2	Advanced Cryptography and Blockchain Security	5
TOTAL		10
3. Full Stack Web Development		
Semester 3		
1	Advanced Web Development Framework using Laravel	5
TOTAL		5
Semester 4		
1	Mern Stack Development	5
2	NoSQL MongoDB	5
TOTAL		10

Total Credit of the Course

Semester	Credits
Semester 1	25
Semester 2	26
Semester 3	25
Semester 4	18
Total Credit of the Course	94