Syllabus for 2-Years M.Sc. in Computational Mathematics

Department of Mathematics

Techno India University, West Bengal

EM-4, EM Block, Sector V, Bidhannagar, Kolkata, West Bengal 700091

M.Sc. in Computational Mathematics

Course Curriculum for All Semester

Semester I

Sl. No.	Course Code	Course Title	Contact Hrs. / Week			Credit	Page No.
			L	T	P		
Theory							
1	MCM101_TIU	Advanced Graph Theory	03	00	00	3	
2	MCM102_TIU	Advanced Algorithm	03	00	00	3	
3	MCM103_TIU	Advanced Multivariate Statistical Technique	03	00	00	3	
4	MCM104_TIU	Artificial Neural Network	03	00	00	3	
5	MCM105_TIU	Topology	03	00	00	3	
Practical							
1	MCM101L_TIU	Advanced Graph Theory: LAB using Python	00	00	02	2	
2	MCM102L_TIU	Advanced Algorithm: LAB	00	00	02	2	
3	MCM103L_TIU	Artificial Neural Network: LAB	00	00	02	2	
Total Credit						21	

Semester II

Sl. No.	Course Code	Course Title	Contact Hrs. / Week			Credit	Page No.
			L	T	P		
Theory							
1	MCM201_TIU	Computational Geometry	03	01	00	4	
2	MCM202_TIU	Deep Learning	03	01	00	4	
3	MCM203_TIU	Functional Analysis	03	00	00	3	
4	MCM204_TIU	Integral Transforms	03	00	00	3	
5	MCM205_TIU	Concrete Mathematics	03	00	00	3	
Session							
1	MCM201L_TIU	Deep Learning: LAB using Python	00	00	02	2	
Total Credit						19	

Semester III

Sl. No.	Course Code	Course Title	Contact Hrs. / Week			Credit	Page No.
			L	T	P		
Theory							
1	MCM301_TIU	Bioinformatics	03	00	00	3	
2	MCM302_TIU	Optimization Techniques	03	01	00	4	
3	MCM303_TIU	Differential Geometry	03	01	00	4	
4	MCM304_TIU	Machine Learning	03	00	00	3	
5	MCM305_TIU	Project Synopsis	04	00	00	4	
Practical							
1	MCM301L_TIU	Machine Learning :LAB	00	00	02	2	
Total Credit						20	

Semester IV

Sl. No.	Course Code	Course Title	Contact Hrs. / Week			Credit	Page No.
			L	T	P		
Theory							
1	MCM401_TIU	Cryptography	03	00	00	3	
2	MCM402_TIU	Advanced Stochastic Process	03	00	00	3	
3	MCM403_TIU	Project Submission	04	00	00	4	
4	MCM404_TIU	Project: Grand Viva	08	00	00	8	
Practical							
1	MCM401L_TIU	Cryptography : LAB	00	00	02	2	
Total Credit						20	