



**TECHNO INDIA UNIVERSITY**  
WESTBENGAL

**Curriculum for 2-Years M.Sc.  
in  
Mathematics for AI**

**Techno India University, West Bengal  
EM-4, EM Block, Sector V, Bidhannagar, Kolkata,  
West Bengal 700091**



M.Sc. in Mathematics for AI

Course Curriculum

*Semester I*

Sl. No.	Course Code	Course Title	Contact Hrs./ Week			Credit	Page No.
			L	T	P		
<b>Theory</b>							
1	MFAI101_TIU	Graph Theory	02	00	00	2	
2	MFAI102_TIU	Fourier Series and Transformations	02	00	00	2	
3	MFAI103_TIU	Multivariate Statistical Technique	02	00	00	2	
4	MFAI104_TIU	Discrete Mathematics	02	00	02	4	
5	MFAI105_TIU	Vector Calculus	03	00	00	3	
<b>Practical</b>							
1	MFAI101P_TIU	Graph Theory Lab	00	00	02	2	
2	MFAI102P_TIU	Multivariate Statistical Technique Lab	00	00	02	2	
<b>Sessional</b>							
1	MFAI101S_TIU	Career Advancement & Skill Development (CASD)	02	00	00	2	
<b>Total Credit</b>						<b>19</b>	



*Semester II*

Sl. No.	Course Code	Course Title	Contact Hrs./ Week			Credit	Page No.
			L	T	P		
<b>Theory</b>							
1	MFAI201_TIU	Computational Geometry	03	00	00	3	
2	MFAI202_TIU	Advanced Theory of Computation	03	00	00	3	
3	MFAI203_TIU	Analytic Number Theory	02	00	00	2	
4	MFAI204_TIU	Concrete Mathematics	02	00	00	2	
5	MFAI205_TIU	Cryptography and Mathematical Modeling	03	00	00	3	
<b>Practical</b>							
1	MFAI201P_TIU	Advanced Theory of Computation Lab	00	00	02	2	
2	MFAI202P_TIU	Cryptography and Mathematical Modeling Lab	00	00	02	2	
<b>Sessional</b>							
1	MFAI201S_TIU	Career Advancement & Skill Development (CASD)	02	00	00	2	
<b>Total Credit</b>						<b>19</b>	



*Semester III*

Sl. No.	Course Code	Course Title	Contact Hrs./ Week			Credit	Page No.
			L	T	P		
<b>Theory</b>							
1	MFAI301_TIU	Quantum Computing	03	01	00	4	
2	MFAI302_TIU	Advanced Algorithm	03	00	00	3	
3	MFAI303_TIU	Artificial Intelligence	02	00	00	2	
4	MFAI304_TIU	Machine Learning	02	00	00	2	
5	MFAI305_TIU	Project Synopsis	03	00	00	3	
<b>Practical</b>							
1	MFAI301P_TIU	AI & ML Lab	00	00	03	3	
2	MFAI302P_TIU	Advanced Algorithm Lab	00	00	02	2	
<b>Total Credit</b>						<b>19</b>	



*Semester IV*

Sl. No.	Course Code	Course Title	Contact Hrs./ Week			Credit	Page No.
			L	T	P		
<b>Theory</b>							
1	MFAI401_TIU	Deep Learning	02	00	00	2	
2	MFAI402_TIU	Final Dissertation	06	00	00	6	
3	MFAI403_TIU	Grand Viva	03	00	00	3	
<b>Practical</b>							
1	MFAI401P_TIU	Deep Learning Lab	00	00	02	2	
<b>Total Credit</b>						<b>13</b>	