DR. A.P.J. ABDUL KALAM TECHNICAL UNIVERSITY, UTTAR PRADESH, LUCKNOW

EVALUATION SCHEME & SYLLABUS

FOR

B. TECH THIRD YEAR

Computer Science and Engineering

(Artificial Intelligence and Machine Learning)

Based On

NEP2020

(Effective from the Session: 2024-25)

B.TECH.
COMPUTER SCIENCE AND ENGINEERING
(ARTIFICIAL INTELLIGENCE AND MACHINE LEARNING)
CURRICULUM STRUCTURE

Sl. No.	Subject Codes	Subject	Periods			Evaluation Scheme				End Semester		Total	Credit
			L	T	P	CT	TA	Total	PS	TE	PE		
1	BCS501	Database Management System	3	1	0	20	10	30		70		100	4
2	BCAI501	Artificial Intelligence	3	1	0	20	10	30		70		100	4
3	BCS503	Design and Analysis of Algorithm	3	1	0	20	10	30		70		100	4
4	BCAI051/ BCS058/ BCS052/ BCS054	Departmental Elective-I	3	1	0	20	10	30		70		100	4
5	BCAM051/ BCAI052/ BCS056/ BCS057	Departmental Elective-II	3	1	0	20	10	30		70		100	4
6	BCS551	Database Management System Lab	0	0	2				50		50	100	1
7	BCAI551	Artificial Intelligence Lab	0	0	2				50		50	100	1
8	BCS553	Design and Analysis of Algorithm Lab	0	0	2				50		50	100	1
9	BCS554	Mini Project or Internship Assessment*	0	0	2				50		50	100	2
10	BNC501/ BNC502	Constitution of India/ Essence of Indian Traditional Knowledge	2	0	0	20	10	30		70			
		Total										**900**	**23**

SEMESTER- V

*The Mini Project or Internship (4 weeks) conducted during summer break after IV semester and will be assessed during V semester.

*It is desirable that the students should do their Summer Internship or Mini Project in their specialization area in line with the B.Tech. program.

SEMESTER- VI

Sl. No.	Subject Codes	Subject	Periods			Evaluation Scheme				End Semester		Total	Credit
			L	T	P	CT	TA	Total	PS	TE	PE		
1	BCS601	Software Engineering	3	1	0	20	10	30		70		100	4
2	BCAI601	Machine Learning Techniques	3	1	0	20	10	30		70		100	4
3	BCS603	Computer Networks	3	1	0	20	10	30		70		100	4
4	BCAI061/ BCDS061/ BCAM061/ BCAM062	Departmental Elective-III	3	0	0	20	10	30		70		100	3
5	Open Elective-I	Open Elective-I	3	0	0	20	10	30		70		100	3
6	BCS651	Software Engineering Lab	0	0	2				50		50	100	1
7	BCAI651	Machine Learning Lab	0	0	2				50		50	100	1
8	BCS653	Computer Networks Lab	0	0	2				50		50	100	1
9	BNC601/ BNC602	Constitution of India/ Essence of Indian Traditional Knowledge	2	0	0	20	10	30		70			
		Total										**800**	**21**

* The Mini Project or Internship (4 weeks) will be done during summer break after VI Semester and will be assessed during VII semester.
* It is desirable that the students should do their Summer Internship or Mini Project in their specialization area in line with the B.Tech. program.

Departmental Elective-I
1. BCAI051 - Mathematical Foundation AI, ML and Data Science
2. BCS058 - Data Warehouse & Data Mining
3. BCS052 – Data Analytics
4. BCS054 - Object Oriented System Design with C++

Departmental Elective-II
1. BCAM051 - Cloud Computing
2. BCAI052 - Natural Language Processing
3. BCS056 - Application of Soft Computing
4. BCS057- Image Processing

Departmental Elective-III
1. BCAI061 - Cyber Forensic analytics
2. BCDS061 - Image Analytics
3. BCAM061 - Social Media Analytics and Data Analysis
4. BCAM062 - Stream Processing and Analytics