Bachelor of Computer Applications (Honours with Research) with Industry-Oriented Specialisation in Artificial Intelligence and Machine Learning Curriculum

SN	Name of the Course	L	T	P	S	C
Semester I						
1	Mathematics for Computing	3	0	0	0	3
2	Computer System Organisation	3	0	0	0	3
3	Programming for Problem Solving	3	0	1	1	5
4	Office Automation Tools	3	0	1	0	4
5	Business Communication & Report Writing	3	0	0	0	3
	Total Credits	**15**	**0**	**2**	**1**	**18**
Semester II						
1	Discrete Mathematics	3	0	0	0	3
2	First Aid & Health	3	0	0	0	3
3	Data Structures	3	0	1	0	4
4	Object Oriented Programming using C++	3	0	1	1	5
5	Database Management Systems	3	0	1	0	4
6	Web Design	3	0	1	0	4
	Total Credits	**18**	**0**	**4**	**1**	**23**
Semester III						
1	Computer Networks	3	0	0	0	3
2	Operating Systems	3	0	1	0	4
3	Full Stack Development using React & Node.js	3	0	1	0	4
4	Entrepreneurship/ E-Business (MOOC)	3	0	0	0	3
5	Java Programming	3	0	1	1	5
6	ML Tools and Platforms	3	0	1	0	4
	Total Credits	**18**	**0**	**3**	**1**	**23**
Semester IV						
1	Python Programming	3	0	1	0	4
2	Machine Learning	3	0	1	1	5
3	Mobile Application Development	3	0	1	1	5
4	Environmental Studies/ Understanding India/Cognitive Computing	3	0	0	0	3
5	Natural Language Processing	3	0	1	0	4
	Total Credits	**15**	**0**	**4**	**2**	**21**
Semester V						
1	Design and Analysis of Algorithms	3	0	1	0	4
2	Software Engineering and Testing	3	0	0	0	3
3	Deep Learning	3	0	1	0	4
4	Professional Readiness	0	0	2	0	2
5	Minor Project	0	0	0	5	5
6	Internship	0	0	0	5	5
	Total Credits	**9**	**0**	**4**	**10**	**23**
Semester VI						
1	Capstone Project	0	0	0	15	15
	Total Credits	**0**	**0**	**0**	**15**	**15**
Semester VII						
1	Research Methodology	3	0	0	0	3
2	Optimization Techniques	3	0	0	0	3
3	Advanced Data Structures and Algorithms	3	0	1	0	4
4	Responsible AI & Tech Ethics	2	0	0	0	2
5	Research Project-I	0	0	0	8	8
	Total Credits	**11**	**0**	**1**	**8**	**20**
Semester VIII						
1	Colloquium	0	0	0	5	5
2	Research Project -II (Scopus Indexed Research Paper)	0	0	0	15	15
	Total Credits	**0**	**0**	**0**	**20**	**20**
Open Elective Basket						
1	Business Communication & Report Writing	3	0	0	0	3
2	First Aid & Health	3	0	0	0	3
3	Food Nutrition & Hygiene	3	0	0	0	3
4	NCC/NSS	3	0	0	0	3
5	Human Values	3	0	0	0	3
6	Yoga & Meditation	3	0	0	0	3
7	Entrepreneurship (MOOC)	3	0	0	0	3
8	E-Business (MOOC)	3	0	0	0	3
9	Understanding India	3	0	0	0	3
10	Environmental Studies	3	0	0	0	3
11	Introduction to Cognitive Computing	3	0	0	0	3