

Bachelor of Computer Applications (Honours with Research) with Industry-Oriented Specialisation in Cloud Computing and Virtualisation Curriculum

Semester I						
SN	Name of the Course	L	T	P	S	C
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						
SN	Name of the Course	L	T	P	S	C
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						
SN	Name of the Course	L	T	P	S	C
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	Fundamentals of Cloud	3	0	1	0	4
	Total Credits	18	0	4	1	23
Semester IV						
SN	Name of the Course	L	T	P	S	C
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	Cloud Infrastructure and DevOps	3	0	1	0	4
	Total Credits	15	0	4	2	21
Semester V						
SN	Name of the Course	L	T	P	S	C
1	Design and Analysis of Algorithms	3	0	1	0	4
2	Software Engineering and Testing	3	0	0	0	3
3	Advanced Cloud Architecture with AWS	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						
SN	Name of the Course	L	T	P	S	C
1	Capstone Project	0	0	0	15	15
	Total Credits	0	0	0	15	15
Semester VII						
SN	Name of the Course	L	T	P	S	C
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						
SN	Name of the Course	L	T	P	S	C
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						
SN	Name of the Course	L	T	P	S	C
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