



JECRCTM
UNIVERSITY
BUILD YOUR WORLD

Faculty of IT & Computer Application

Scheme of

BCA (Bachelor of Computer Applications)-"Cloud Computing"

(In Association with Microsoft)

Academic Programme- July 2021-22

Semester wise credit						Credits	Minimum Credit for degree
I	II	III	IV	V	VI	Total	
22	23	23	24	24	16	132	132

Semester – I							Semester – II						
Course Code	Course Name	L (Hr.)	T (Hr.)	P (Hr.)	Credits	Type	Course Code	Course Name	L (Hr.)	T (Hr.)	P (Hr.)	Credits	Type
BCA201	Operating System	3	0	0	3	CORE	BCA209	Database Management System	3	1	0	4	CORE
BCA202	Programming in C	3	1	0	4	CORE	BCA210	Object Oriented Programming using C++	3	1	0	4	F
MSA001	Microsoft Certified: Azure Fundamentals Microsoft Certified: Azure Data Fundamentals	3	0	0	3	CORE	BCA212	Database Management System Lab	0	0	2	1	CORE
BCA204	Computational Thinking and Problem Solving	2	1	0	3	F	BCA213	Project Lab using C++	0	0	2	1	F
BCA205	Computer Programming Lab	0	0	2	1	CORE	MSA002	Microsoft Certified: Security, Compliance, and Identity Fundamentals	2	0	0	2	CORE
BCA206	Computer Systems Organization lab	0	0	2	1	CORE	MSA003	Microsoft Certified: Azure AI Fundamentals	2	0	0	2	CORE
BCA207	Computational Thinking and Problem Solving Lab	0	0	2	1	F		Environmental Studies	2	0	0	2	ID
BCA208	Seminar	0	0	2	1	CORE		Culture Education-II	2	0	0	2	F
	Communication Skills	2	0	2	3	ID		Professional Skills	2	0	0	2	F
	Culture Education-I	2	0	0	2	ID		Open Elective-I	3	0	0	3	GE
	Total	15	2	10	22			Total	19	2	4	23	

Semester – III							Semester – IV						
Course Code	Course Name	L (Hr.)	T (Hr.)	P (Hr.)	Credits	Type	Course Code	Course Name	L (Hr.)	T (Hr.)	P (Hr.)	Credits	Type
BCA216	Data Structures and Algorithms	3	1	0	4	F	BCA222	Advance Java	3	0	0	3	CORE
BCA217	Programming in JAVA	3	1	0	4	CORE	BCA223	Programming in Python	3	0	0	3	CORE
BCA219	Project Programming Lab in PHP	0	0	2	1	CORE	BCA224	Software Engineering	3	0	0	3	F
BCA220	Data Structures Lab	0	0	2	1	F	BCA227	Project Lab in Advance Java	0	0	2	1	CORE
BCA221	Project Lab using JAVA	0	0	2	1	CORE	BCA228	Project Lab in Python	0	0	2	1	CORE
MSA004	Microsoft Certified: Azure Developer Associate	3	0	0	3	CORE	BCA226	Project Lab (Web Technologies)	0	0	2	1	F
							MSA006	Microsoft Certified: Azure Database Administrator Associate	3	0	0	3	F
MSA005	Microsoft Certified: Azure Data Scientist Associate	3	0	0	3	CORE	MSA007	Microsoft Certified: Azure Data Engineer Associate	3	0	0	3	CORE
	Life Skills -I (Aptitude)	1	0	0	1	F		Life Skills - II (Personality development)	1	0	0	1	F
	Value Education-I	1	0	0	1	F		Value Education-II	1	0	0	1	F
	Life Skills -I Lab	0	0	2	1	F		Life Skills - II Lab	0	0	2	1	F
	Open Elective-II	3	0	0	3	GE		Open Elective-III	3	0	0	3	GE
	Total	17	2	8	23			Total	20	0	8	24	

Semester – V							Semester – VI					
Course Code	Course Name	L (Hr.)	T (Hr.)	P (Hr.)	Credits	Type	Course Code	Course Name	L (Hr.)	P (Hr.)	Credits	Type
BCA229	Computer Networks	3	0	0	3	CORE	BCA242	Industrial Training/Internship/Dissertation Project Presentation	0	0	16	CORE
BCA230	Cryptography and Cyber Security	3	0	0	3	CORE						
BCA231	Mobile Application Development	2	0	0	2	F						
BCA232	Mobile Application Development Lab	0	0	2	1	F						
BCA233	Cryptography Lab	0	0	2	1	CORE						
BCA234	UNIX and Shell Programming Lab	0	0	2	1	CORE						
BCA235	Project	0	0	2	1	CORE						
MSA008	Microsoft Certified: Azure Security Engineer Associate	3	0	0	3	CORE						
	Elective –II (202/300)	3	0	0	3	CORE						
	Elective – I II(202/300)	3	0	0	3	CORE						
	Open Elective-IV	3	0	0	3	GE						
	Total	20	0	8	24							

List of courses for Electives

Electives-(202)		Electives-(300)	
Course Code	Course Name	Course Code	Course Name
BCA237	Programming in ASP.Net	BCA250	Data warehousing and Data Mining
BCA238	Programming in R	BCA251	Data Science and Analytics
BCA239	Programming in C#	BCA252	Big Data Analytics
BCA240	Professional Java	BCA253	Cloud Computing
BCA241	Programming in ASP.Net Lab	BCA254	Introduction to Salesforce
BCA242	Programming in R Lab	BCA255	Artificial Intelligence and Expert System
BCA243	Programming in C# Lab	BCA256	Design & Analysis of Algorithms
BCA244	Professional Java Lab	BCA257	Compiler Design
BCA245	MEAN Fullstack Development	BCA258	Theory of Computation
BCA246	Introduction to Linux System Administration	BCA259	Robotics Process Automation
BCA247	Linux Server Administration and Automation		
BCA248	Software Development Using OpenShift Architecture		
BCA249	Network Virtualization Using OpenStack		