



JECRCTM
UNIVERSITY
BUILD YOUR WORLD

Faculty of IT & Computer Application

Scheme of

BCA (Bachelor of Computer Applications)-Artificial Intelligence &

Machine Learning (In Association with IBM)

Academic Programme- July 2021-22

Total Credits for the Batch 2021-24 = 132 Credits

Semester wise credit						Credits	Minimum Credit for degree
I	II	III	IV	V	VI	Total	
22	22	24	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	
BCA204	Computational Thinking and Problem Solving	2	1	0	3	F	BCA212	Database Management System Lab	0	0	2	1	CORE	
BCA205	Computer Programming Lab	0	0	2	1	CORE	BCA213	Project Lab using C++	0	0	2	1	F	
BCA206	Computer Systems Organization lab	0	0	2	1	CORE	BCA214	Software Testing Lab	0	0	2	1	CORE	
BCA207	Computational Thinking and Problem Solving Lab	0	0	2	1	F	BCAM102	Data Visualization (30)	2	0	0	2	CORE	
BCA208	Seminar	0	0	2	1	CORE		Environmental Studies	2	0	0	2	ID	
BCAM101	Python(40)	3	0	0	0	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	17	2	6	22		

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	BCA225	Web Technologies	3	0	0	3	F
BCA219	Project Programming Lab in PHP	0	0	2	1	CORE	BCA226	Project Lab (Web Technologies)	0	0	2	1	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	BCAM106	AI Services	4	0	0	4	CORE
BCAM104	Text Analytics (40)	4	0	0	4		BCAM107	Predictive Analytics Modeller(32)	3	0	0	3	CORE
BCAM105	Rapid Development For AI -Watson Services(24)	3	0	0	3		BCAM108	Machine Learning Services with Watson Studio(24)	2	0	2	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	18	2	8	24			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						
	Elective – I (202/300)	3	0	0	3	CORE						
BCAM109	Machine Learning with Python(12)	3	0	0	3	CORE						
BCAM110	Deep Learning and Machine Learning(15)	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		