BONAM VENKATA CHALAMAYYA INSTITUTE OF TECHNOLOGY AND SCIENCE (A) :: BATLAPALEM

BACHELOR OF COMPUTER APPLICATIONS (BCA) HONOURS

COURSE STRUCTURE AND SYLLABUS
For UG – BR24

BACHELOR OF COMPUTER APPLICATIONS (BCA)
(For Four-Year UG Programme)

(Applicable for batches admitted from 2024-25)

JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY KAKINADA

KAKINADA - 533 003, Andhra Pradesh, India

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BACHELOR OF COMPUTER APPLICATIONS (BCA) HONOURS
COURSE STRUCTURE

I Semester

S.No	Course Code	Course Name	Category	L	T	P	Credits
1		Fundamentals of Commerce	MAJOR	5	0	0	4
2		Business Organization	MAJOR	5	0	0	4
3		**Languages (FIRST LANGUAGE FIRST PAPER)** • ENGLISH • HINDI • TELEGU • SANSKRIT • URDU	BS&H	4	0	0	3
4		**Languages (SECOND LANGUAGE FIRST PAPER)** • ENGLISH • HINDI • TELEGU • SANSKRIT • URDU	BS&H	4	0	0	3
5		**Skill courses (Any Two in 1st semester)** • ENTREPRENEURSHIP DEVELOPMENT • LEADERSHIP SKILLS • ANALYTICAL SKILLS • COMMUNICATION SKILLS	SC	2	0	0	2
6		**Skill courses (Any Two in 1st semester)** • ENTREPRENEURSHIP DEVELOPMENT • LEADERSHIP SKILLS • ANALYTICAL SKILLS • COMMUNICATION SKILLS	SC	2	0	0	2
7		**MULTIDISCIPLINARY COURSES(Choose One Course out of 6 courses)** • Introduction to Social Work • PRINCIPLES OF PSYCHOLOGY • INDIAN HISTORY • PRINCIPLES OF BIOLOGICAL SCIENCES • PRINCIPLES OF CHEMICAL SCIENCES	Multidisciplinary Course	2	0	0	2

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HONOURS

		• PRINCIPLES OF PHYSICAL SCIENCES				
			Total	**24**	**0**	**0**	**20**

II Semester

S.No	Course Code	Course Name	Category	L	T	P	Credits
1		Office Automation Tools	MAJOR	3	0	0	3
2		Programming in C	MAJOR	3	0	0	3
3		CHOOSE ONE MINOR COURSE(**ONE FROM CLOUD COMPUTING**) Computer Networks	MINOR MC	3	0	0	3
4		**Languages (FIRST LANGUAGE SECOND PAPER)** • ENGLISH • HINDI • TELEGU • SANSKRIT • URDU	BS&H	4	0	0	3
5		**Languages (SECOND LANGUAGE SECOND PAPER)** • ENGLISH • HINDI • TELEGU • SANSKRIT • URDU	BS&H	4	0	0	3
6		**Skill courses (Any Two in 2ND semester)** • BUSINESS WRITING • MARKETING SKILLS • INVESTMENT PLANNING • STOCK MARKET OPERATIONS • DIGITAL LITERACY	SC	2	0	0	2
7		Office Automation Tools Lab	MAJOR	0	0	2	1
8		Programming in C Lab	MAJOR	0	0	2	1
9		Computer Networks Lab	MINOR	0	0	2	1
			Total	**19**	**0**	**6**	**20**

Community Service Project of 180 hours with 4 Credits. Student is eligible for Exit Option-1 with the award of Certificate in respective discipline

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III Semester

S.No	Course Code	Course Name	Category	L	T	P	Credits
1		Database Management System	MAJOR	3	0	0	3
2		Data Structures	MAJOR	3	0	0	3
3		Object Oriented Programming Through JAVA	MAJOR	3	0	0	3
4		Software Engineering	MAJOR	3	0	0	3
5		**CHOOSE ONE MINORCOURSE(FROM CLOUD COMPUTING)** Cloud Computing	MINOR	3	0	0	3
6		**Skill courses (Any one in 3rd semester)** • BUSINESS FORECASTING • PROJECT MANAGEMENT • INFORMATION AND COMMUNICATION TECHNOLOGY • DATA ANALYTICS	SC	2	0	0	2
7		**MULTIDISCIPLINARY COURSES(Choose One Course out of 6 courses)** • Introduction to Public Administration • Principles of Management • Principles of Accounting • Basic Electronics • Health and Hygiene • Basic Mathematics	Multidisciplinary Course	2	0	0	2
8		Database Management System Lab	PC	0	0	2	1
9		Data Structures Lab	PC	0	0	2	1
10		Object Oriented Programming Through JAVA Lab	PC	0	0	2	1
11		Software Engineering Lab	PC	0	0	2	1
12		Cloud Computing Lab	PC	0	0	2	1
			Total	**19**	**0**	**10**	**24**

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IV Semester

S.No	Course Code	Course Name	Category	L	T	P	Credits
1		Python Programming	MAJOR	3	0	0	3
2		Operating Systems	MAJOR	3	0	0	3
3		Mobile Application Development using Android	MAJOR	3	0	0	3
4		**CHOOSE ONE MINORCOURSE(FROM CLOUD COMPUTING)** AWS For Cloud Computing	MAJOR	3	0	0	3
5		**CHOOSE ONE MINORCOURSE(FROM CLOUD COMPUTING)** Data Mining and Data Warehousing	MINOR	3	0	0	3
6		**Skill courses (Any one in 4th semester)** • CYBER SECURITY • DIGITAL MARKETING • TOURISM GUIDANCE • DESIGN THINKING	SC	2	0	0	2
7		**MULTIDISCIPLINARY COURSES(Choose One Course out of 6 courses)** • FUNDAMENTALS OF ECONOMICS • INDIAN PHILOSOPHY • PERFORMING ARTS • INTRODUCTION TO GEOGRAPHY • BASIC STATISTICS • INTRODUCTION TO NANOTECHNOLOGY	Multidisciplinary Course	2	0	0	2
8		Python Programming Lab	PC	0	0	2	1
9		Operating Systems Lab	PC	0	0	2	1
10		Mobile Application Development using Android Lab	PC	0	0	2	1
11		AWS For Cloud Computing Lab	PC	0	0	2	1
12		Data Mining and Data Warehousing Lab	PC	0	0	2	1

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	Total	19	0	10	24

Short-Term Internship/Apprenticeship/OJT of 180 hours with 4 Credits. Student is eligible for Exit Option-2 with the award of Diploma in respective major with minor

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BACHELOR OF COMPUTER APPLICATIONS (BCA) HONOURS

S.No	Course Code	Course Name	Category	L	T	P	Credits
1		Web Programming	MAJOR	3	0	0	3
2		Web Development Using PHP & MySQL	MAJOR	3	0	0	3
3		cloud Computing (OR) Machine Learning	MAJOR	3	0	0	3
4		Software Testing (OR) Foundations of Data Science	MAJOR	3	0	0	3
5		**CHOOSE ONE MINORCOURSE(FROM CLOUD COMPUTING)** Python Programming	MINOR	3	0	0	3
6		**CHOOSE ONE MINORCOURSE(FROM CLOUD COMPUTING)** Data Analytics Methods	MINOR	3	0	0	3
7		Web Programming Lab	PC	0	0	2	1
8		Web Development Using PHP & MySQL Lab	PC	0	0	2	1
9		cloud Computing (OR) Machine Learning Lab	PC	0	0	2	1
10		Software Testing (OR) Foundations of Data Science Lab	PC	0	0	2	1
11		Python Programming Lab	PC	0	0	2	1
12		Data Analytics Methods Lab	PC	0	0	2	1
			Total	18	0	12	24

V Semester

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S.No	Course Code	Course Name	Category	L	T	P	Credits
1		Semester Internship/Apprenticeship Credits	MAJOR	0	0	0	12
			Total				

VI Semester

Semester Internship/Apprenticeship/OJT with 12 Credits. Student is eligible for Exit Option-3 with the award of Degree in respective major with

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VII Semester

S.No	Course Code	Course Name	Category	L	T	P	Credits
1		Parallel and Distributed Computing (OR) Big Data Technologies	MAJOR	3	0	0	3
2		Artificial Intelligence and Neural Networks (OR) Cryptography and Network Security	MAJOR	3	0	0	3
3		Bio-Informatics (OR) Mathematical and Statistical Foundations	MAJOR	3	0	0	3
4		Content Management (OR) Web Development with ReactJS	MAJOR	3	0	0	3
5		Data Analysis with Power BI (OR) Data Visualization Using Tableau	MAJOR	3	0	0	3
6		Parallel and Distributed Computing (OR) Big Data Technologies Lab	PC	0	0	2	1
7		Artificial Intelligence and Neural Networks (OR) Cryptography and Network Security Lab	PC	0	0	2	1
8		Bio-Informatics (OR) Mathematical and Statistical Foundations Lab	PC	0	0	2	1
9		Content Management (OR) Web Development with ReactJS Lab	PC	0	0	2	1
10		Data Analysis with Power BI (OR) Data Visualization Using Tableau Lab	PC	0	0	2	1
			Total	**15**	**0**	**10**	**20**

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VIII Semester

S.No	Course Code	Course Name	Category	L	T	P	Credits
1		Natural Language Processing & Tex Analytics (OR) Social Network Analysis	MAJOR	3	0	0	3
2		Cyber Security (OR) Block Chain Technology	MAJOR	3	0	0	3
3		Advanced Database Systems (OR) Applied Data Analytics	MAJOR	3	0	0	3
4		Search Engine Optimization (OR) Deep Learning	MAJOR	3	0	0	3
5		Game Design & Development (OR) Bootstrap & JQuery	MAJOR	3	0	0	3
6		Natural Language Processing & Tex Analytics (OR) Social Network Analysis Lab	PC	0	0	2	1
7		Cyber Security (OR) Block Chain Technology Lab	PC	0	0	2	1
8		Advanced Database Systems (OR) Applied Data Analytics Lab	PC	0	0	2	1
9		Search Engine Optimization (OR) Deep Learning Lab	PC	0	0	2	1
10		Game Design & Development (OR) Bootstrap & JQuery Lab	PC	0	0	2	1
			Total	**15**	**0**	**10**	**20**

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