

GURU KASHI UNIVERSITY



Bachelor of Computer Applications

2023-24

Department of Computer Applications

GRADUATE OUTCOMES OF THE PROGRAMME

The Bachelor of Computer Applications (BCA) program emphasizes computer science principles, proficiency in programming languages, software development techniques, and the cultivation of exceptional problem-solving skills.

PROGRAMME LEARNING OUTCOMES: After completing the programme, the Learner will be able to:

1. Apply exploration to study and analyze problems in different areas of information technology.
2. Analyze and evaluate computing systems, processes, and technologies to identify areas for improvement and optimize their performance.
3. Communicate effectively with different stakeholders using a variety of modes and techniques, including written reports, oral presentations, and visual aids.
4. Contribute to progressive community and society in comprehending computing activities by writing effective reports, designing documentation, making effective presentations, and understanding instructions.
5. Demonstrate proficiency in programming languages, software development tools, and other relevant technologies.
6. Conduct independent research and engage in lifelong learning to keep up-to-date with emerging trends and technologies in computer science.

Programme Structure

Semester I						
Course Code	Course Title	Type of Course				
			L	T	P	Credits
OBCA111	Computer Fundamentals	Core	4	0	0	4
OBCA112	Programming using C	Core	4	0	0	4
OBCA104	Communication skills	Compulsory Foundation	2	0	2	3
OBCA113	Computer Fundamentals Lab	Technical skill	0	0	4	2
OBCA114	Programming using C Lab	Technical skill	0	0	4	2
OBCA199	XXXX	MOOC	-	-	-	2
Disciplinary Elective- I (Any one of the following)						
OBCA115	Computer System Architecture	Disciplinary Elective- I	3	0	0	3
OBCA116	Digital Electronics					
Total			13	0	10	20

Semester II						
Course Code	Course Title	Course Type				
			L	T	P	Credits
OBCA211	Operating Systems	Core	4	0	0	4
OBCA202	Programming using C++	Core	4	0	0	4
OBCA212	Operating Systems Lab	Technical skill	0	0	4	2
OBCA204	Programming using C++Lab	Technical skill	0	0	4	2
OBCA213	Multimedia Lab	Technical skill	0	0	4	2
OBCA214	Environmental Studies	Compulsory Foundation	1	0	0	1
OBCA215	Introduction to Human Resource Management	Skill Based	2	0	0	2
Disciplinary Elective- II (Any one of the following)						
OBCA216	E- Commerce	Discipline Elective- II	3	0	0	3
OBCA217	Information System Design and Implementation					
Total			14	0	12	20

Semester III						
Course Code	Course Title	Course Type				
			L	T	P	Credits
OBCA311	Database Management Systems	Core	4	0	0	4
OBCA312	Data Structures	Core	4	0	0	4
OBCA313	Database Management Systems Lab	Technical skill	0	0	4	2
OBCA314	Data Structures Lab	Technical skill	0	0	4	2
OBCA315	Minor Project	Technical skill	0	0	2	1
OBCA399	XXXX	MOOC	-	-	-	2
Disciplinary Elective- III (Any one of the following)						
OBCA316	Programming using PHP	Discipline Elective- III	3	0	0	3
OBCA317	Application Development using VB.NET					
Open Elective Course						
XXXX		OEC	2	0	0	2
Total			13	0	10	20
Open Elective Courses (For other Departments)						
OBCA310	Digital Marketing	OEC	2	0	0	2

Semester IV						
Course Code	Course Title	Course Type				
			L	T	P	Credits
OBCA409	Programming using Java	Core	4	0	0	4
OBCA410	Discrete Mathematics	Core	4	0	0	4
OBCA411	Programming using Java Lab	Technical skill	0	0	4	2
OBCA412	Internet Fundamentals Lab	Technical skill	0	0	4	2
Disciplinary Elective- IV (Any one of the following)						
OBCA413	Theory of Computation	Discipline Elective- IV	3	0	0	3
OBCA408	Ethical Hacking					
Disciplinary Elective-V (Any one of the following)						
OBCA414	Big Data	Disciplinary Elective-V	3	0	0	3
OBCA415	Data Warehouse and Mining					
Value Added Course						
OBCA416	Basics of LaTeX	VAC	2	0	0	2
Total			16	0	8	20

Semester V						
Course Code	Course Title	Course Type				
			L	T	P	Credits
OBCA510	Artificial Intelligence	Core	4	0	0	4
OBCA501	Computer Networks	Core	4	0	0	4
OBCA511	Artificial Intelligence Lab	Technical skill	0	0	2	1
OBCA512	Internship Training* (6 weeks)	Skill Based	-	-	-	6
OBCA599	XXXX	MOOC	-	-	-	2
Disciplinary Elective-VI(Any one of the following)						
OBCA513	Computer Graphics	Disciplinary Elective-VI	3	0	0	3
OBCA514	Parallel Processing					
Total			11	0	2	20

Note: * 6 week Training after Fourth Semester during summer vacation

Semester VI						
Course Code	Course Title	Course Type				
			L	T	P	Credits
OBCA611	Software Engineering	Core	4	0	0	4
OBCA602	Programming using Python	Core	4	0	0	4
OBCA605	Programming using Python Lab	Technical skill	0	0	4	2
OBCA612	Major Project	Technical skill	0	0	4	2
OBCA613	Service Learning	Skill Based	0	0	4	2
Disciplinary Elective-VII (Any one of the following)						
OBCA614	Cyber Law	Discipline Elective-VII	3	0	0	3
OBCA615	Digital Image Processing					
Disciplinary Elective-VIII(Any one of the following)						
OBCA616	Introduction to Cloud Computing	Discipline Elective-VIII	3	0	0	3
OBCA617	Analysis & Design of Algorithms					
Total			14	0	12	20
Grand Total			81	0	54	120