



GIET UNIVERSITY, GUNUPUR, ODISHA
School of Engineering & Technology
Department of Computer Science & Engineering

Syllabus Structure
For
Graduate Programme
Regulation 2020



BACHELOR OF COMPUTER APPLICATIONS



GIET UNIVERSITY, GUNUPUR, ODISHA
School of Engineering & Technology
Department of Computer Science & Engineering

Bachelor of Computer Applications 2020-21

1st Semester [First Year]

S. No.	Subject Code	Subjects	Hours / Week			Credits
			L	T	P	
1	BCA20101	English for Technical Communications	5			4
2	BCA20102	Environmental Studies	5			4
3	BCA20103	C Programming	4			4
4	BCA20104	Basic Mathematical Computation	4			4
Laboratories						
1	BCA20105	Programming Lab with C			2	1
2	BCA20106	English for Technical Communications			2	1
Total			18		4	18



GIET UNIVERSITY, GUNUPUR, ODISHA
School of Engineering & Technology
Department of Computer Science & Engineering

Bachelor of Computer Applications 2020-21

2nd Semester [First Year]

S. No.	Subject Code	Subjects	Hours/ week			Credits
			L	T	P	
1	BCA20201	Computer Architecture	4			4
2	BCA20202	Database Management System	5			4
3	BCA20203	Data Structures	4			4
4	BCA20204	Advanced Mathematical Computation	5			4
Laboratories						
1	BCA20205	Data Structures lab using C			2	1
2	BCA20206	Database Management System Lab			2	1
Total			18		4	18



GIET UNIVERSITY, GUNUPUR, ODISHA
School of Engineering & Technology
Department of Computer Science & Engineering

Bachelor of Computer Applications 2020-21

3rd Semester [Second Year]

S. No.	Subject Code	Subjects	Hours/ week			Credits
			L	T	P	
1	BCA20301	Operating Systems	4			4
2	BCA20302	Object Oriented Programming with Java	5			4
3	BCA20303	Computer Graphics	4			4
4	BCA20304	Management and Accounting	5			4
Laboratories						
1	BCA20305	Operating Systems Lab			2	1
2	BCA20306	Programming lab with C++			2	1
Total			18		4	18



GIET UNIVERSITY, GUNUPUR, ODISHA
School of Engineering & Technology
Department of Computer Science & Engineering

Bachelor of Computer Applications 2020-21
4th Semester [Second Year]

S.No.	Subject Code	Subject	Hours / week			Credits
			L	T	P	
1	BCA20401	Software Engineering	4			4
2	BCA20402	Python Programming	4			4
3	BCA20403	Computer Networks	5			4
4	BCA20404	Web Technologies	5			4
Laboratories						
1	BCA20405	Software Engineering Lab			2	1
2	BCA20406	Python Programming Lab			2	1
3	BCA20407	Web Technologies Lab			2	1
Total			18		6	19



GIET UNIVERSITY, GUNUPUR, ODISHA
School of Engineering & Technology
Department of Computer Science & Engineering

Bachelor of Computer Applications 2020-21

5th Semester [Third Year]

S.No.	Subject Code	Subject	Hours / week			Credits
			L	T	P	
1	BCA20501	Artificial Intelligence	5			4
2	BCA20502	Unix and Shell Programming	4			4
3	BCA20503	Cloud Computing	4			4
Laboratories						
1	BCA20504	Minor Project			6	3
2	BCA20505	Linux Lab			4	2
3	BCA20506	Industrial Training			2	1
Total			13		12	18



GIET UNIVERSITY, GUNUPUR, ODISHA
School of Engineering & Technology
Department of Computer Science & Engineering

Bachelor of Computer Applications 2020-21

6th Semester [Third Year]

S.No.	Subject Code	Subject	Hours / week			Credits
			L	T	P	
2	BCA20601	WEB PROGRAMMING WITH PHP AND MYSQL	5			4
3	BCA20602	Values and Ethics of Profession	4			4
Laboratories						
1	BCA20604	Major Project with Vivavoce				15
Total			9			23



GIET UNIVERSITY, GUNUPUR, ODISHA
School of Engineering & Technology
Department of Computer Science & Engineering

1st Semester [First Year]

Category	Course Particulars		Credit Particulars				Evaluation						Credits	
	CourseCode	CourseName	Hours Per Week				THEORY			PRACTICAL				Total Marks
			L	T	P	C	CIA	SEE	Total	CIA	SEE	Total		
Professional Core Courses	BCA20101	English for Technical Communications	5			4	70	30	100	-	-	-	100	4
Professional Core Courses	BCA20102	Environmental Studies	5			4	70	30	100	-	-	-	100	4
Professional Core Courses	BCA20103	C Programming	4			4	70	30	100	-	-	-	100	4
Professional Core Courses	BCA20104	Basic Mathematical Computation	4			4	70	30	100	-	-	-	100	4
	BCA20105	Programming Lab with C			2	1				30	70	100	100	1
	BCA20106	English for Technical Communications			2	1				30	70	100	100	1
Total			18		4	18			400			200	600	18



GIET UNIVERSITY, GUNUPUR, ODISHA
School of Engineering & Technology
Department of Computer Science & Engineering

2nd Semester

Category	Course Particulars		Credit Particulars				Evaluation							Credits
	CourseCode	CourseName	Hours Per Week				THEORY			PRACTICAL			Total Marks	
			L	T	P	C	CIA	SEE	Total	CIA	SEE	Total		
Professional Core Courses	BCA20201	Computer Architecture	4			4	70	30	100	-	-	-	100	4
Professional Core Courses	BCA20202	Database Management System	5			4	70	30	100	-	-	-	100	4
Professional Core Courses	BCA20203	Data Structures	4			4	70	30	100	-	-	-	100	4
Professional Core Courses	BCA20204	Advanced Mathematical Computation	5			4	70	30	100	-	-	-	100	4
	BCA20205	Data Structures lab using C			2	1				30	70	100	100	1
	BCA20206	Database Management System Lab			2	1				30	70	100	100	1
Total			18		4	18			400			200	600	18



GIET UNIVERSITY, GUNUPUR, ODISHA
School of Engineering & Technology
Department of Computer Science & Engineering

3rd Semester

Category	Course Particulars		Credit Particulars				Evaluation						Credits		
	CourseCode	CourseName	Hours Per Week				THEORY			PRACTICAL				Total Marks	
			L	T	P	C	CIA	SEE	Total	CIA	SEE	Total			
Professional Core Courses	BCA20301	Operating Systems	4			4	70	30	100				100	4	
Professional Core Courses	BCA20302	Object Oriented Programming with Java	5			4	70	30	100				100	4	
Professional Core Courses	BCA20303	Computer Graphics	4			4	70	30	100				100	4	
Professional Core Courses	BCA20304	Management and Accounting	5			4	70	30	100				100	4	
	BCA20305	Operating Systems Lab			2	1					30	70	100	100	1
	BCA20306	Programming lab with C++			2	1					30	70	100	100	1
Total			18		4	18			400			200	600	18	



GIET UNIVERSITY, GUNUPUR, ODISHA
School of Engineering & Technology
Department of Computer Science & Engineering

4th semester

Category	Course Particulars		Credit Particulars				Evaluation							Credits
	CourseCode	CourseName	Hours Per Week				THEORY			PRACTICAL			Total Marks	
			L	T	P	C	CIA	SEE	Total	CIA	SEE	Total		
Professional Core Courses	BCA20401	Software Engineering	4			4	70	30	100				100	4
Professional Core Courses	BCA20402	Python Programming	4			4	70	30	100				100	4
Professional Core Courses	BCA20403	Computer Networks	5			4	70	30	100				100	4
Professional Core Courses	BCA20404	Web Technologies	5			4	70	30	100				100	4
	BCA20405	Software Engineering Lab			2	1				30	70	100	100	1
	BCA20406	Python Programming Lab			2	1				30	70	100	100	1



GIET UNIVERSITY, GUNUPUR, ODISHA
School of Engineering & Technology
Department of Computer Science & Engineering

	BCA20407	Web Technologies Lab			2	1				30	70	100	100	1
Total			18		6	19			400			300	700	19

5th semester

Category	Course Particulars		Credit Particulars				Evaluation						Credits	
	CourseCode	CourseName	Hours Per Week				THEORY			PRACTICAL				Total Marks
			L	T	P	C	CIA	SEE	Total	CIA	SEE	Total		
Professional Core Courses	BCA20501	Artificial Intelligence	5			4	70	30	100				100	4
Professional Core Courses	BCA20502	Unix and Shell Programming	4			4	70	30	100				100	4
Professional Core Courses	BCA20503	Cloud Computing	4			4	70	30	100				100	4
	BCA20504	Minor Project			6	3	70	30	100				100	3
	BCA20505	Linux Lab			4	2				30	70	100	100	2



GIET UNIVERSITY, GUNUPUR, ODISHA
School of Engineering & Technology
Department of Computer Science & Engineering

	BCA20506	Industrial Training			2	1				30	70	100	100	1
Total			14		12	18			400			300	700	18

6th semester

Category	Course Particulars		Credit Particulars				Evaluation						Credits	
	CourseCode	CourseName	Hours Per Week				THEORY			PRACTICAL				Total Marks
			L	T	P	C	CIA	SEE	Total	CIA	SEE	Total		
Professional Core Courses	BCA20601	Web Programming With PHP and MYSQL	5			4	70	30	100				100	4
Professional Core Courses	BCA20602	Values and Ethics of Profession	4			4	70	30	100				100	4
	BCA20604	Major Project with Viva voce				15						100	100	15



GIET UNIVERSITY, GUNUPUR, ODISHA
School of Engineering & Technology
Department of Computer Science & Engineering

Total			9			15							300	23
-------	--	--	---	--	--	----	--	--	--	--	--	--	-----	----