



**GALGOTIAS UNIVERSITY
UTTAR PRADESH**

**B.Tech in Computer Science & Engineering
with specialization in Data Analytics**

2018-19

Semester Wise Breakup of Courses

Semester 1						
Course Code	Revised Course Code	Course Title	L	T	P	C
1		Introduction to Computer Science & Engineering	0	0	2	1
2		Computer Programming and Problem Solving using C	0	0	4	2
3		Calculus for Engineers	3	0	0	3
4		Exploration with CAS-I	0	0	2	1
5		Engineering Physics	3	0	0	3
6		Engineering Physics lab	0	0	2	1
7		Engineering Chemistry	3	0	0	3
8		Engineering Chemistry lab	0	0	2	1
9		Product Design using Graphics	0	0	4	2
10		Universal Human Values and Ethics	0	0	4	2
11		Basic English	0	0	4	2
12		Foreign Language 1 (from Basket)	0	0	2	1
		TOTAL				22

Semester 2						
Course Code	Revised Course Code	Course Title	L	T	P	C
1		Application Oriented Programming using Python	0	0	6	3
2		Psychology and Sociology	2	0	0	2
3		Environmental Science	3	0	0	3
4		Matrices and Differential Equations.	3	0	0	3
5		Exploration with CAS-II	0	0	2	1
6		Physics of Semiconductor Devices for CSE, ECE, EEE	3	0	0	3
7		Advance Physics Lab	0	0	2	1
8		Basic Electrical and Electronics Engineering	3	0	0	3
9		Basic Electrical and Electronics Engineering Lab	0	0	2	1
10		English Proficiency and Aptitude Building - 1	0	0	4	2
11		Foreign Language 2 (from Basket)	0	0	2	1
12						
		TOTAL				23

Semester 3						
Course Code	Revised Course Code	Course Title	L	T	P	C
1		English Proficiency and Aptitude Building - 2	0	0	4	2
2		Digital Design and Computer Architecture	3	0	0	3
3		Maths III (From Basket)/ Discrete Structure	3	0	0	3
4		Engineering Thermodynamics	3	0	0	3
5		Data Structures using C++	3	0	0	3
6		Introduction to Cryptographic Fundamentals	3	0	0	3
7		Thoery of Automata & Formal Languages	3	0	0	3
8		Digital Design and Computer Architecture Lab	0	0	2	1
9		Data Structures using C++ Lab	0	0	2	1
10		Introduction to Cryptographic Fundamentals Lab	0	0	2	1
		TOTAL				23

Semester 4						
Course Code	Revised Course Code	Course Title	L	T	P	C
1		English Proficiency and Aptitude Building - 3	0	0	4	2
2		Maths IV (From Basket) / Specialization Specific	2	0	2	3
3		Operating Systems	3	0	0	3
4		Data Base Management System	3	0	0	3
5		Microprocessor & Interfacing	3	0	0	3
6		Program Elective-1	3	0	0	3
7		Data Communication and Networking	3	0	0	3
8		Operating Systems Lab	0	0	2	1
9		Data Base Management System Lab	0	0	2	1
10		Microprocessor & Interfacing Lab	0	0	2	1
		Introduction to Big Data and Data Analytics	3	0	0	3
		TOTAL				26

Semester 5						
Course Code	Revised Course Code	Course Title	L	T	P	C
1		English Proficiency and Aptitude Building - 4	0	0	4	2
2		Design & Analysis of Algorithms	3	0	0	3
3		Compiler Design	3	0	0	3
4		Software Engineering	3	0	0	3
5		Introduction to Cyber Security	3	0	0	3
6		Advanced Java Programming	1	0	6	4
7		ITS-1	0	0	2	1
8		Swayam / MOOC	0	0	4	2
9		Compiler Design Lab	0	0	2	1

Semester 6						
Course Code	Revised Course Code	Course Title	L	T	P	C
1		Campus to Corporate	0	0	4	2
2		Computer Graphics	3	0	0	3
3		Web Technologies	3	0	0	3
4		ITS-2	0	0	2	1
5		Program Elective-3	3	0	0	3
6		University Elective-1	3	0	0	3
7		Program Elective-2	0	0	6	3
8		Management Course (From Basket)	3	0	0	3
9		Computer Graphics Lab	0	0	2	1

10		Software Engineering Lab	0	0	2	1
		E-Commerce and Social Media Analytics	3	0	0	3
		TOTAL				26

10		Web Technologies Lab	0	0	2	1
		Data Mining & Predictive Modeling	2	0	2	3
		Total				26

Semester 7						
	Course Code	Course Title	L	T	P	C
1	PE-4	Program Elective-4	0	0	6	3
2	PC22	Swayam / MOOC	0	0	4	2
3	UC26	Capstone Design- 1	0	0	6	3
4	UE6	Program Elective - 5	0	0	6	3
5	UE12	University Elective - 12	3	0	0	3
		Programming in R for Data Analysis	2	0	2	3
		Mobile and IoT Analytics	3	0	0	3
		TOTAL				20

Semester 8						
	Course Code	Course Title	L	T	P	C
1	UC27	Capstone Design - 2	0	0	18	9
		TOTAL				9

TOTAL	175
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Program Elective		L	T	P	C
1	Introduction to Cloud Computing	3	0	0	3
2	Algorithms for Advanced Analytics	3	0	0	3
3	Artificial Intelligence and Intelligent Systems	0	0	6	3
4	Augmented Reality	3	0	0	3
5	Big Data Analytics for IoT	0	0	6	3
6	Big Data Technology	0	0	6	3
7	Cloud Application Development	0	0	6	3
8	Cloud Architecture and Computing	0	0	6	3
9	Cloud Security	3	0	0	3
10	Cloud Storage and Computing	3	0	0	3
11	Connecting Networks	3	0	0	3
12	Deep Learning	3	0	0	3
13	Foundations of Data Science	3	0	0	3
14	Genetic Algorithms and Machine Learning	3	0	0	3
15	Internet of Things: Sensing and Actuator Devices	0	0	6	3
16	Programming for Data Analytics	0	0	6	3
17	Routing and Switching Essentials	0	0	6	3
18	Scaling Networks	0	0	6	3

Basket-I (III Sem)	
	1. Functions of complex variables and Transforms: MATH-2001
	2. Numerical Methods: MATH-2002
	3. Discrete Mathematical structures: MATH-2005
Basket-II (IV Sem)	
	1. Probability and Statistics: MATH 2003
	2. Probability and Stochastic processes: MATH 2004
	4. Advance Statistical Analysis: MATH 2007