TECNIA INSTITUTE OF ADVANCED STUDIES

NAAC GRADE "A" INSTITUTE (CYCLE-1)

Approved by AICTE, Ministry of Education Govt. of India,
Affiliated to G.G.S.I.P. University & Recognized Under Sec. 2(f) of UGC Act 1956.

INSTITUTIONAL AREA, MADHUBAN CHOWK, ROHINI, DELHI-110085

Department of Information, Communication & Technology

Bachelor of Computer Applications (BCA) 3Yrs.

As per Scheme of Examination & Syllabi for BCA Scheme and Syllabus

(w.e.f. Academic Session 2021-22) Affiliated Institutions of GGSIP University, Delhi.

COURSES

FIRST SEMESTER

C.CODE	COURSE	NEP CT	L	T/P	CREDITS
BCA101	Discrete Mathematics	CCT	3	1	4
BCA 103	Programming Using C' Language	CCT	3	1	4
BCA105#	Fundamentals of Computers & IT	CCT	3	1	4
BCA 107#	Web Technologies	CCT	3	1	4
BCA 109	Technical Communication	AECC	3	1	4
BCA 171	Practical – I 'C' Prog. Lab	CCP	0	4	2
BCA 173#	Practical – II IT Lab	CCP	0	4	2
BCA 175#	Practical-III Web Tech Lab	CCP	0	4	2
BCA 181+	Bridge Course in Mathematics	BC	2	0	0
	Total				**26**

THIRD SEMESTER

C.CODE	COURSE	NEP CT	L	T/P	CREDITS
BCA201	Computer Network	CCT	3	1	4
BCA203	Computer Organization and Architecture	CCT	3	1	4
BCA205#	Object Oriented Programming with C++	CCT	3	1	4
BCA207	Human Values and Ethics	AECC	2	0	2
BCAT211T#	Basics of Python Programming	DSE-1	4	0	4
BCAP 211#	Basics of Python Programming Lab	DSE-1	0	2	1
BCAT 213	Cyber Security	DSE-1	4	0	4
BCAP 213	Cyber Security Lab.	DSE-1	0	2	1
BCA 221	Principles of Mgt.& Organizational Behaviour	GE-1	3	1	4
BCA 223	Open Elective by other Department/Programming	GE-1	3	1	4
BCA 231	*MOOC's Course from SWAYAM/NPTEL	SEC-2	0	0	2
BCA 233	Designing Lab Corel Draw	SEC-2	0	4	2
BCA 235	ASP.Net	SEC-2	0	4	2
BCA 237	AR/VR	SEC-2	0	4	2
BCA 239	Cyber Ethics	SEC-2	2	0	2
BCA 271#	Practical – VII C++ Lab #	CCP	0	4	2
	Total				**27**

FIFTH SEMESTER

C.CODE	COURSE	NEP CT	L	T/P	CREDITS
BCA 301	Operating System & Linux Programming	CCT	3	1	4
BCA 303	Computer Graphics	CCT	3	1	4
BCA 305	Cloud Computing	CCT	3	1	4
BCA 307	Minor Project	AECC	0	8	4
BCAT 311	Data Visualization & Analyics	DSE-3	4	0	4
BCAP 311	Data Visualization & Analyics Lab	DSE-3	0	2	1
BCAT 313	Machine Learning with Python	DSE-3	4	0	4
BCAP 313	Machine Learning with Python Lab.	DSE-3	0	2	1
BCAT 315	Web Security	DSE-3	4	0	4
BCAP 315	Web Security Lab.	DSE-3	0	2	1
BCAT 317	Web Development with Java & JSP	DSE-3	4	0	4
BCAP 317	Web Development with Java & JSP Lab.	DSE-3	0	2	1
BCA 331	*Summer Training Project	SEC-4	0	0	2
BCA 371	Practical – X Linux - OS Lab	CCP	0	4	2
BCA 373	Practical – XI CG Lab	CCP	0	4	2
	Total				**27**

*Non Credit subject mandatory for the students who do not have mathematics in 12th Std. The student has to obtain at least 40 marks. The examination of this paper shall be conducted by the concerned teacher teaching the course / paper as Teacher's Continuous Evaluation for total 100 marks. Only the pass or fail status is to be specified on the marksheet of examination and the result of the student. Passing in this paper is mandatory for the student.

SECOND SEMESTER

C.CODE	COURSE	NEP CT	L	T/P	CREDITS
BCA102	Applied Mathematics	CCT	3	1	4
BCA104	Web Based Programming	CCT	3	1	4
BCA106	Data Structure & Algorithm Using 'C'	CCT	3	1	4
BCA108#	Database Management System	CCT	3	1	4
BCA 110	Environment Studies	AECC	2	0	2
BCA 132	*MOOC's Course from SWAYAM / NPTEL	SEC-1	0	0	2
BCA 134	Front End Design Tool VB.Net Lab	SEC-1	0	4	2
BCA 136	Statistical Analysis using Excel	SEC-1	0	4	2
BCA 138	Designing Lab Photoshop	SEC-1	0	4	2
BCA 172	Practical-IV WBP Lab	CCP	0	4	2
BCA 174	Practical – V DS Lab	CCP	0	4	2
BCA176#	Practical – VI DBMS Lab	CCP	0	4	2
	Total				**26**

FOURTH SEMESTER

C.CODE	COURSE	NEP CT	L	T/P	CREDITS
BCA202	Java Programming	CCT	3	1	4
BCA204	Software Engineering	CCT	3	1	4
BCA206	Introduction to Mgt. &Entrepreneurship Development	AECC	3	1	4
BCAT212	Introduction to Data Science	DSE-2	4	0	4
BCAP212	Introduction to Data Science Lab	DSE-2	0	2	1
BCAT214	Introduction to Artificial Intelligence	DSE-2	4	0	4
BCAP214	Introduction to Artificial Intelligence Lab.	DSE-2	0	2	1
BCAT216	Network Security	DSE-2	4	0	4
BCAP216	Network Security Lab.	DSE-2	0	2	1
BCAT218	Web Development with Python & Django	DSE-2	4	0	4
BCAP218	Web Development with Python & Django Lab.	DSE-2	0	2	1
BCA 222	Digital Marketing	GE-2	3	1	4
BCA 224	Principles of Accounting	GE-2	3	1	4
BCA 226	Open Elective by other Programme	GE-2	3	1	4
BCA 232	Personality Development Skills	SEC-3	2	0	2
BCA 272	Practical –XII Java Lab	CCP	0	4	2
BCA 274	Practical – IX SE Lab	CCP	0	4	2
	Total				**27**

SIXTH SEMESTER

C.CODE	COURSE	NEP CT	L	T/P	CREDITS
BCA 302	Data Ware Housing & Data Mining	CCT	3	1	4
BCA 304#	E- Commerce	CCT	3	1	4
BCA 306	Internet of Things	CCT	3	1	4
BCA 308	***Major Project	AECC	-	12	6
BCAT 312	Machine Learning with Python	DSE-4	4	0	4
BCAP 312	Machine Learning with Python Lab.	DSE-4	0	2	1
BCAT 314	Deep Learning with Python	DSE-4	4	0	4
BCAP 314	Deep Learning with Python Lab.	DSE-4	0	2	1
BCA 316	IT Act and Cyber Laws	DSE-4	4	1	5
BCAT 318	Mobile Application Development	DSE-4	4	0	4
BCAP 318	Mobile Application Development Lab.	DSE-4	0	2	1
BCA 332	Seminar/Conference Presentation	SEC-5	0	0	2
BCA 372	Practical – XII IOT Lab	CCP	0	4	2
BCA374	NSS/NCC/Cultural Club/Technical Society/ Technical Clubs(Mandatory)	VA	-	-	2
	Total				**29**

ABBR.	NEP Course Type	ABBR.	NEP Course Type
	The whole syllabus is divided into following types:		
CCT	Core Courses Theory	GE	Multidisciplinary(Generic Ele)
CCP	Core Courses Practical	PCE	Programme Core Elective
AEC	Ability Enhancement Courses	SI	Summer Internship
SEC	Skill Enhancement Courses	MOOCs	MOOC Courses
VA	Value Added Courses	PRJ	Minor/ Major Project
NUES	Non Univ. Exam. System	IIR	Industry Internship Report
BC	Bridge Course		

Head of the Department
Department of Information, Communication & Technology