

At Post Mahiravani, Trimbak Road, Nashik-422213, Maharashtra https://www.sandipuniversity.edu.in

School of Computer Sciences and Engineering

Department of Computer Science & Application

NEP-2020 Course Structure Level 4.5

Programme Name: Bachelor of Computer Application (Hons./Hons. with Research)
Semester – I For the Batch: AY 23-24 onwards

				Т			•	Ex	aminati	Teaching Scheme (Hrs./Week) Examination Scheme		
Sr. No.	Categ ory	Course Code	Course Name	L	т	P	c	Asses	ative sment IA	Summa Assessr ES	nent	
								Course	Lab	Course	Lab	
Major	r (Mandato	ory + Electives)										
1	Major	NYCA101	Problem Solving Technique using C	3			3	50		100		100
2	Major	NYMT101	Mathematical Foundation for Computer Science	2	1		3	50		100		100
Mino	r: NA											
				NA								
Open	Elective (OE) *										
3	OE		Open Elective - I	4			4	50		100		100
Vocat	tional and	Skill Enhancen	nent (VSEC)	·	•	'	,		!	1	!	
4	SEC	NCAS01	Office 365 Laboratory			4	2		50		50	100
5	VSC	NYCA111	C Programming Laboratory			4	2		50		50	100
Abilit	y/Value E	ducation Cours	es / Indian Knowledge System (AEC/V	EC/IKS	*						
6	AEC		Ability Enhancement Courses - I			4	2		50		50	100
7	VEC		Value Education Course - I			4	2		50		50	100
8	IKS		Indian Knowledge System - I			4	2		50		50	100
OJT/	FP/CEP/C	CC/RP										
8	СС	NYUC111	Co-Curricular Course-I			4	2		50		50	100
		TO	TAL	9	1	24	22	150	300	300	300	900

Document Reference	Revision No. / Date	Prepared By	Approved By
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School of Computer Sciences and Engineering

Department of Computer Science & Application

CIA: Continuous Internal Assessment ESE: End Semester Theory	OJT – On Job Training FP – Field Project CEP – Community	CIA	Weightage	Description	
Exam.	Engagement Projects CC – Co-Curricular Course	CIA 1	10%	Home Assignment	
L: Theory Lecture,	RP – Research Project AEC - Ability Enhancement	CIA 2	20%	Written Exam	
T: Tutorial, P: Practical	Courses IKS- Indian Knowledge System VEC- Value Education Courses * - Refer University Notification	CIA 3	10%	Activity /Project and Research Based Learning along with Seminar Presentations	
		CIA 4	10%	Behavioral Attitude +General Discipline Theory +Practical attendance	
		CIA TOTAL	50%		
	50%				
		TOTAL	100%		

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School of Computer Sciences and Engineering

Department of Computer Science & Application

NEP-2020 Course Structure Level 4.5

Programme Name: Bachelor of Computer Application (Hons./Hons. with Research)

Semester - II For the Batch: AY 23-24 onwards

					ching Hrs./			Examination Scheme				
Sr. No.	Category	Course Code	Course Name	L	Т	P	С	Formative Assessment C CIA		Asse	mative essment SE	Total Marks
								Course	Lab	Course	Lab	
Major (l	Mandatory +	Electives)										
1	Major	NYCA201	Object Oriented Programming using C++	3			3	50		100		100
2	Major	NYCA202	Discrete Mathematics	3			3	50		100		100
Minor:	Г	Г			ı	ı		 	Г	Т		
3	Minor		Minor-I	2			2	50		100		100
Open E	lectives (OE	*										
4	OE		Open Elective - II	4			4	50		100		100
Vocatio	nal and Skil	1 Enhanceme	ent (VSEC)									
5	VSC	NYCA211	Object Oriented Programming using C++ Laboratory			4	2		50		50	100
6	SEC	NCAS04	Web Application Development Technologies Laboratory			4	2		50		50	100
Ability/	Value Educa	ation Course	s / Indian Knowled	ge Sys	stem (AEC/	VEC/	IKS) *				
7	AEC		Ability Enhancement Courses - II			4	2		50		50	100
8	VEC		Value Education Course - II	-		4	2		50		50	100
OJT/FI	P/CEP/CC/R	P.P										
9	CC		Curricular Course- I			4	2		50		50	100
		TOTAL		12	-	20	22	200	300	400	300	900

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School of Computer Sciences and Engineering

Department of Computer Science & Application

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ESE : End Semester Theory Exam.	Engagement Projects CC – Co-Curricular Course	CIA 1	10%	Home Assignment	
L: Theory Lecture,	RP – Research Project AEC - Ability Enhancement	CIA 2	20%	Written Exam	
T: Tutorial, P: Practical	Courses IKS- Indian Knowledge System VEC- Value Education Courses * - Refer University Notification	CIA 3	10%	Activity /Project and Research Based Learning along with Seminar Presentations Behavioral Attitude +General Discipline Theory +Practical	
		CIA TOTAL	50%	attendance	
Written Examination – End Semester Exam (ESE)			50%	-	
		TOTAL	100%		

Exit option: Award of UG Certificate in Major with 40-44 credits and an additional 4 credits of Internship OR Continue with Major and Minor.

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School of Computer Sciences and Engineering

Department of Computer Science & Application

NEP-2020 Course Structure Level 5.0

Programme Name: Bachelor of Computer Application (Honours /Honours with Research)

Semester – III For the Batch: AY 2024-25 onwards

Semester – III For the Batch: AY 2024-25 or					wards							
				Те	aching (Hrs./	g Sche Week		E	xaminat	ion Schem	ıe	
Sr. No.	Category	Course Code	Course Name	L	т	P	С		sment Asse		native sment E	Total Marks
								Course	Lab	Course	Lab	
Majo	r (Mandatory	')										
1	Major	NYCA301	Python Programming	4			4	50		100		100
2	Major	NYCA302	Database Management System	4			4	50		100		100
Mino	r:				•							
3	Minor		Minor-II	4			4	50		100		100
Open	Electives (C	E) *										
4	OE		Open Elective - III	2			2	50		100		100
Vocat	tional and Si	kill Enhance:	ment (VSEC)	•							•	
5	VSC	NYCA311	Lab Course Based on Python Programming & Database Management System			4	2		50		50	100
Abilit	y/Value Edu	cation Cour	ses / Indian Knowled	ge Sys	tem (A	EC/V	EC/IKS	S) *				
6	AEC		Ability Enhancement Courses - III			4	2		50		50	100
OJT/	FP/CEP/CC	/RP										
7	СС		Co-Curricular Course-II			4	2		50		50	100
8	FP	NYCA312	Field project			4	2		50		50	100
		TOTAL		14		16	22	200	200	400	200	800

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School of Computer Sciences and Engineering

Department of Computer Science & Application

CIA: Continuous Internal Assessment	OJT – On Job Training FP – Field Project CEP – Community	CIA	Weightage	Description
ESE : End Semester Theory Exam.	Engagement Projects CC – Co-Curricular Course	CIA 1	10%	Home Assignment
L: Theory Lecture,	RP – Research Project AEC - Ability Enhancement	CIA 2	20%	Written Exam
T : Tutorial, P : Practical	Courses IKS- Indian Knowledge System	CIA 3	10%	Activity /Project and Research Based Learning along with Seminar Presentations
	VEC - Value Education Courses	CIA 4	10%	Behavioral Attitude +General Discipline Theory +Practical attendance
	* - Refer University Notification	CIA TOTAL	50%	
W	Written Examination – End Semester Exam (ESE)		50%	
		TOTAL	100%	

BoS Associate Dean Registrar Dean SUN Chairperson **SOCSA** Academics

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School of Computer Sciences and Engineering

Department of Computer Science & Application

NEP-2020 Course Structure Level 5.0

Programme Name: Bachelor of Computer Application (Honours /Honours with Research)

Semester – IV

For the Batch: AY 2023-24 onwards

						g Schei Week)		F	Examinat	ion Schem	e	Total Marks
Sr. No	Category	Course Code	Course Name	L	Т	P	С	Formative Assessment CIA		Summative Assessment ESE		
								Course	Lab	Course	Lab	
Majo	r (Mandatory	y)										
1	Major	NYCA401	Advanced Python Programming	4			4	50		100		100
2	Major	NYCA402	Relational Database Management System	4		-	4	50		100		100
Mino	r:											
3	Minor		Minor-III	4			4	50		100		100
Open	Electives (C	DE) *										
4	OE		Open Elective - IV	2			2	50		100		100
Voca	tional and S	kill Enhancer	nent (VSEC)									
5	SEC	NYCA411	Lab Course Based on Advanced Python Programming & Relational Database Management System			4	2		50		50	100
Abilit	ty/Value Ed	ucation Cours	ses / Indian Knowle	dge Sy	sten	(AEC	VEC/I	KS) *				
6	AEC		Ability Enhancement Course-IV			4	2		50		50	100
OJT/	FP/CEP/CC	/RP										
7	CEP	NYCA412	Community Engagement Project			4	2		50		50	100
8	СС		Co-Curricular Course-III			4	2		50		50	100
		TOTAL		14	-	16	22	200	200	400	200	800

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Department of Computer Science & Application

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ESE : End Semester Theory Exam.	Engagement Projects CC – Co-Curricular Course	CIA 1	10%	Home Assignment		
L: Theory Lecture,	RP – Research Project AEC - Ability Enhancement	CIA 2	20%	Written Exam		
T: Tutorial, P: Practical	Courses IKS- Indian Knowledge System VEC- Value Education	CIA 3	10%	Activity /Project and Research Based Learning along with Seminar Presentations		
	Courses * - Refer University Notification	CIA 4	10%	Behavioral Attitude +General Discipline Theory +Practical attendance		
		CIA TOTAL	50%			
W	 /ritten Examination – End Seme	ester Exam (ESE)	50%	-		
		TOTAL	100%	-		

Exit option: Award of UG Diploma in Major and Minor with 80-88 credits and an additional 4 credits Core NSQF course/Internship OR Continue with Major and Minor.

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Sandip University, Nashik (MS), India

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School of Computer Sciences and Engineering

Department of Computer Science & Application

NEP-2020 Course Structure Programme Name: Bachelor of Computer Application (Hons./Hons. with Research)

Semester – V For the Batch: AY 2023-24 onwards

Semester – V For the Batch: AY 2023-24 onwards												
						Sche Week)		Exa	aminati	on Schem	e	Total Marks
Sr. No.	Category	Course Code	Course Name	L	т	P	С	Form Assess CIA	sment	Summ Assess ESE	ment	
								Course	Lab	Course	Lab	
Major	Major (Mandatory + Electives)											
1	Major	NYCA501	Java Programming	4	-	1	4	50	1	100	1	100
2	Major	NYCA502	Cloud Computing	4	1	1	4	50	-	100	-	100
3	Major	NYCA503	Node JS	2	- 1	1	2	50	1	100	1	100
Major	Major Electives (ME)											
3	Major	NYCAE_	Major Elective-I	4		-	4	50		100		100
Minor	r:											
4	Minor	NYCAM_	Minor-IV	4	-	1	4	50	-1	100		100
Vocat	tional and S	kill Enhance	ement (VSEC)									
5	vsc	NYCA511	Java Programming Laboratory			4	2		50		50	100
Abilit	y/Value Ed	ucation Cou	rses / Indian Knowle	dge S	ysten	(AEC	C/VEC	C/IKS) *				
6	AEC	NHSA13	Ability Enhancement Courses - V			4	2		50		50	100
OJT/	FP/CEP/CC	/RP										
7	FP	NYCA512	Field Project-II		1	4	2		50		50	100
		TOTAL		18		12	24	250	150	500	150	800

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School of Computer Sciences and Engineering

Department of Computer Science & Application

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Assessment	FP – Field Project			_
		CIA 1	10%	Home Assignment
ESE : End Semester Theory Exam.	CEP – Community	074.0	200/	777 100 77
	Engagement Projects	CIA 2	20%	Written Exam
L: Theory Lecture,	CC – Co-Curricular			Activity /Project
T: Tutorial,	Course	OTA O	100/	and Research
2. Tutoriai,	DD December Ducker	CIA 3	10%	Based Learning along with Seminar
P: Practical	RP – Research Project			Presentations
r. Hactical	* - Refer University			110001144410110
	Notification			Behavioral Attitude
				+General Discipline
		CIA 4	10%	m
				Theory +Practical attendance
				attendance
		CIA TOTAL	50%	
W	<u> </u> itten Examination – End Ser	mostor Even (FSF)	50%	_
WI	itten Exammation – End Sei	mester Exam (ESE)	30%	
		TOTAL	100%	

		MINOR-IV	
s r. N	Semester	Course Code	Name of the course (Choose any One)
0			
1	V	NYCAM04	Linux Operating System

List of Major Elective

Sr.No	Couse Code	Course Name
1	NYCAE01	Computer Network
2	NYCAE02	Computer Graphics

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School of Computer Sciences and Engineering

Department of Computer Science & Application

NEP-2020 Course Structure

Programme Name: Bachelor of Computer Application (Hons./Hons. with Research)

Semester - VI

For the Batch: AV 2025-26 onwards

Semester – VI For the Batch: AY 2025-26 onw						waras						
					ching (Hrs./			Exa	aminati	ion Schem	e	Total Marks
Sr. No.	Category	Course Code	Course Name	L	т	P	С	Form Assess CIA	sment	Summ Assess ESE	ment	
								Course	Lab	Course	Lab	
Major	Major (Mandatory + Electives)											
1	Major	NYCA601	Advanced Java	4			4	50	-	100		100
2	Major	NYCA602	Android Programming	4			4	50		100		100
Мајоз	Major Electives (ME)											
3	Major		Major Elective-II	2			2	50	-	100	1	100
Mino	r:											
4	Minor	NYCAM_	Minor-V	4			4	50		100		100
Vocat	tional and S	kill Enhance	ement (VSEC)									
5	vsc	NYCA611	Android Programming and Advanced Java Laboratory			4	2		50		50	100
Abili	ty/Value Ed	ucation Cou	rses / Indian Knowle	edge S	Systen	n (AE	C/VEC	C/IKS) *				
6	AEC	NHSA14	Ability Enhancement Courses - VI			4	2		50		50	100
OJT/	FP/CEP/CC	/RP										
7	ОЈТ	NYCA612	Project Based on Android Programming Or Advance Java			4	4		50		50	100
		TOTAL										

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School of Computer Sciences and Engineering

Department of Computer Science & Application

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Assessment	FP – Field Project	CIA	weightage	Description
ESE : End Semester Theory Exam.	CEP – Community	CIA 1	10%	Home Assignment
L: Theory Lecture,	Engagement Projects	CIA 2	20%	Written Exam
T: Tutorial, P: Practical	CC – Co-Curricular Course RP – Research Project * - Refer University Notification	CIA 3	10%	Activity / Project and Research Based Learning along with Seminar Presentations
		CIA 4	10%	Behavioral Attitude +General Discipline Theory +Practical attendance
		CIA TOTAL	50%	
Writ	ten Examination – End Sem	nester Exam (ESE)	50%	-
		TOTAL	100%	-

		MINOR	
Sr. No	Semeste r	Course Code	Name of the course (Choose any One)
1	VI	NYCAM05	Internet of Things

List of Major Electives :II

Sr.No	Couse Code	Course Name
1	NYCAE03	Software Testing
2	NYCAE04	Big Data

Exit option: Award of Three Year Bachelor's Degree in Major with 120-132 credits and an additional 4 credits of Internship OR Continue with Major and Minor.

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School of Computer Sciences and Engineering

Department of Computer Science & Application

NEP-2020 Course Structure Level 6.0

Programme Name: Bachelor of Computer Application (Honours)

Semester – VII For the Batch: AY 2023-24 onwards

	emester -			Teaching Teaching			0 2 1 01	Iwaia				
				Scheme (Hrs./Week)		Examination Scheme					Total	
Sr. No.	Category	Course Code	Course Name	L	т	гР	P C	Asses	ative smen t	Summative Assessment ESE		Marks
								Cours e	Lab	Course	Lab	
Major	(Mandatory)											
1	Major	NYCA701	React JS	4			4	50		100		100
2	Major	NYCA702	Machine Learning	4			4	50		100		100
3	Major	NYCA703	Software Project Management	2			2	50		100		100
4	Major	NYCA704	Object Analysis and Design	4			4	50		100		100
Major	Electives (Ml	E) :										
5	ME	NYCAE_	Major Elective-III	4			4	50		100		100
Minor	:			1		r	1		1		1	
6	Minor		Minor-VI	4			4	50		100		100
		TOTAL		22			22	300		600		600

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ESE : End Semester Theory Exam.	Engagement Projects CC – Co-Curricular Course	CIA 1	10%	Home Assignment
L: Theory Lecture,	RP – Research Project AEC - Ability Enhancement	CIA 2	20%	Written Exam
T : Tutorial, P : Practical	Courses IKS- Indian Knowledge System	CIA 3	10%	Activity /Project and Research Based Learning along with Seminar Presentations
	VEC- Value Education Courses	CIA 4	10%	Behavioral Attitude +General Discipline Theory +Practical attendance
	* - Refer University Notification	CIA TOTAL	50%	
Written Examination – End Semester Exan		ester Exam (ESE)	50%	
		TOTAL	100%	

BoS Associate Dean Registrar Dean SUN Chairperson **SOCSA** Academics

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Department of Computer Science & Application

NEP-2020 Course Structure Level 6.0

Programme Name: Bachelor of Computer Application (Honours)

Semester – VIII For the Batch: AY 2023-24 onwards

Category Course Course Course Name Course Name									= 5300=				= = = =
No. Category Code Course Name L T P C Assessment Assessment Assessment Assessment ESE Course Lab Course Lab Course Lab Course Major (Mandatory) 1 Major NYCA801 Node JS 4 4 50 100 2 Major NYCA802 Data Visualization using Power Bl 4 4 50 100 3 Major NYCA803 Cyber Security Essentials 2 2 50 100 4 Major NYCA804 Principle of Management 4 4 50 100 Major Electives (ME) Major Elective-IV 4 4 50 100				ne	Examination Scheme				Total				
Major (Mandatory) 1 Major NYCA801 Node JS 4 4 50 100 2 Major NYCA802 Data Visualization using Power BI 4 4 50 100 3 Major NYCA803 Cyber Security Essentials 2 2 50 100 4 Major NYCA804 Principle of Management 4 4 50 100 Major Electives (ME) 5 ME NYCAE Major Elective-IV 4 4 50 100		Category		Course Name	L	т	P	c	Assess	sment	Assess	ment	Marks
1 Major NYCA801 Node JS 4 4 50 100 2 Major NYCA802 Data Visualization using Power BI 4 4 50 100 3 Major NYCA803 Cyber Security Essentials 2 2 50 100 4 Major NYCA804 Principle of Management 4 4 50 100 Major Electives (ME) 5 ME NYCAE_ Major Elective-IV 4 4 50 100									Course	Lab	Course	Lab	
2 Major NYCA802 Data Visualization using Power BI 4 4 50 100 3 Major NYCA803 Cyber Security Essentials 2 2 50 100 4 Major NYCA804 Principle of Management 4 4 50 100 Major Electives (ME) 5 ME NYCAE_ Major Elective-IV 4 4 50 100	Major	(Mandatory)											
2 Major Butt violatization using Power BI 4 4 50 100 3 Major NYCA803 Cyber Security Essentials 2 2 50 100 4 Major NYCA804 Principle of Management 4 4 50 100 Major Electives (ME) 5 ME NYCAE_ Major Elective-IV 4 4 50 100	1	Major	NYCA801	Node JS	4			4	50		100		100
3 Major Essentials 2 2 50 100 4 Major NYCA804 Principle of Management 4 4 50 100 Major Electives (ME) 5 ME NYCAE_ Major Elective-IV 4 4 50 100	2	Major	NYCA802		4			4	50		100		100
4 Major Interpret of Management 4 4 50 100 Major Electives (ME) 5 ME NYCAE_ Major Elective-IV 4 4 50 100	3	Major	NYCA803		2			2	50		100		100
5 ME NYCAE_ Major Elective-IV 4 4 50 100	4	Major	NYCA804	-	4			4	50		100		100
	Major	Electives (MI	E)										
OJT/FP/CEP/CC/RP	5	ME	NYCAE_	Major Elective-IV	4			4	50		100		100
	OJT/I	FP/CEP/CC/R	RP								1	1	
6 OJT NYCA811 Internship-II 8 4 50	6	OJT	NYCA811	Internship-II			8	4		50		50	100
TOTAL 18 8 22 250 50 500			TOTAL	1	18		8	22	250	50	500	50	600

BoS Chairperson Dean SOCSA Associate Dean Academics

Registrar SUN

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ESE : End Semester Theory	Engagement Projects CC – Co-Curricular Course	CIA 1	10%	Home Assignment
Exam. L: Theory Lecture,	RP – Research Project AEC- Ability Enhancement	CIA 2	20%	Written Exam
T: Tutorial, P: Practical	Courses IKS- Indian Knowledge System VEC- Value Education	CIA 3	10%	Activity /Project and Research Based Learning along with Seminar Presentations
	Courses * - Refer University Notification	CIA 4	10%	Behavioral Attitude +General Discipline Theory +Practical attendance
	rodification	CIA TOTAL	50%	
W	Written Examination – End Semester Exam (ESE)			
		TOTAL	100%	

Four-year Bachelor of Computer Application Honours in Major & Minor with 160-176 Credits

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Department of Computer Science & Application

NEP-2020 Course Structure Level 6.0

Programme Name: Bachelor of Computer Application (Honours with Research)

Semester – VII For the Batch: AY 2023-24 onwards

Semester - vii				FOI the Datch, A1 2025-24 onwa					waius			
				S	eaching Scheme rs./Wee			Examination Scheme				Total
Sr. No.	Category	Course Code	Course Name	L	т	P	С	Forma Assessi CI	nent	Summ Assess Es		Marks
								Cours e	Lab	Cou rse	Lab	
Major	(Mandatory)											
1	Major	NYCA701	React JS	4			4	50		100		100
2	Major	NYCA702	Object Oriented Analysis and Design	4			4	50		100		100
3	Major	NYCA703	Software Project Management	2			2	50		100		100
Major	Electives (ME)	:										
4	ME	NYCAE_	Major Elective-III	4			4	50		100	-1	100
Minor		1						_				
5	Minor		Minor-VI	4			4	50		100		100
OJT/F	OJT/FP/CEP/CC/RP											
6	RP	NYCA711	Research Project I			8	4		10		100	200
		TOTAL		18		8	22	250	10 0	500	100	700

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Department of Computer Science & Application

CIA: Continuous Internal Assessment ESE: End Semester Theory	OJT – On Job Training FP – Field Project CEP – Community	CIA	Weightage	Description
ESE : End Semester Theory Exam.	Engagement Projects CC – Co-Curricular Course	CIA 1	10%	Home Assignment
L: Theory Lecture,	RP – Research Project AEC- Ability Enhancement	CIA 2	20%	Written Exam
T: Tutorial, P: Practical	Courses IKS- Indian Knowledge System VEC- Value Education Courses * - Refer University Notification	CIA 3	10%	Activity /Project and Research Based Learning along with Seminar Presentations
		CIA 4	10%	Behavioral Attitude +General Discipline Theory +Practical attendance
		CIA TOTAL	50%	
V	l /ritten Examination – End Semo	50%		
	TOTAL	100%	_	

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NEP-2020 Course Structure Level 6.0

Programme Name: Bachelor of Computer Application (Honours with Research)

Semester – VIII For the Batch: AY 2023-24 onwards

Semester - Am				FUI the Batch. At 2025-24					OHWAIA			
					(amination Scheme				
Sr. No.	Category	Course Code	Course Name	L T P C	Formative Assessment CIA		Summative Assessment ESE		Total Marks			
						Course	Lab	Course	Lab			
Major	(Mandatory)											
1	Major	NYCA801	Node JS	4			4	50		100		100
2	Major	NYCA802	Data Visualization using Power BI	4			4	50		100		100
3	Major	NYCA803	Cyber Security Essentials	2			2	50		100		100
Major	Major Electives (ME)											
4	ME	NYCAE_	Major Elective-IV	4			4	50		100		100
OJT/	OJT/FP/CEP/CC/RP											
5	RP	NYCA811	Research Project II			16	8		100		100	200
	TOTAL 14 16 22 200 100 400 100 6							600				

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		CIA 4	10%	Behavioral Attitude +General Discipline Theory +Practical attendance
		CIA TOTAL	50%	
W	ritten Examination – End Semo	50%		
		TOTAL	100%	

Four Year Bachelor of Computer Application Honours with Research in Major & Minor with 160-176 Credits

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Department of Computer Science & Application

NEP 2020- Ability Enhancement Course (AEC) Basket (For the Batch 2025-26 Onwards) Program: BCA (Bachelor of Computer Application)

Sr. No.	Course Code	Name of the Course	Semester
1	NHSA01	Communicative English	
2	NHSA05	Elementary Marathi	I
3	NHSA09	Linguaskills I	
4	NHSA02	Personality Development and Soft Skill	
5	NHSA04	Introduction to Sanskrit	II
6	NHSA10	Linguaskills 2	
7	NCAA01	Leadership Skills and Team Management	
8	NCAA02	Sustainable Development	III
9	NHSA11	Key Competencies for Career Growth	
7	NCAA03	Creative Writing	
8	NCAA04	Reading Indian Fiction in English	IV
9	NHSAI2	Strategic Communication for Professionas	
10	NHSA13	Essential Aptitude Skills	V
11	NHSA14	Employability Skills and Career Advancement	VI

NEP 2020 Value Education Course (VEC) Basket (For the Batch 2024-25 Onwards) Program: BCA (Bachelor of Computer Application)

Sr. No.	Course Code	Name of the Course	Semester	
1	NSSV01	Environmental Studies	T	
2	NCAV01	Human Values and Professional Ethics	1	
3	NLWV01	Constitution and Human Rights		
4	NCAV02	Science and Society	II	

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NEP 2020 Indian Knowledge System (IKS) Basket (For the Batch 2024-25 Onwards) Program: BCA (Bachelor of Computer Application)

Sr. No.	Course Code	Name of the Course	Semester
1	NCAI01	Indian Epics	
2	NCAI02	Ancient Indian History and Culture	
3	NCAI03	Vedic Literature	1
4	NCAI04	Ancient Indian Mathematicians	

NEP 2020- Co-Curricular Activity (CC) Basket (For the Batch 2024-25 Onwards) Program: BCA (Bachelor of Computer Application)

Sr. No.	Course Code	Name of the Course	Semester
1	NYUC111	Yoga and Meditation	I
2	NCAC01	Solid Waste Management	
3	NCAC02	Health and Wellness	II
4	NCAC03	Essence of Good Governance	II
5	NCAC04	e-Waste Management	111
6	NCAC05	Knowing India's Heritage	III
7	NCAC06	Soil and Water Resource Conservation	
8	NCAC07	Social Responsibilities and Ethics	IV

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NEP 2020- Minor Basket (For the Batch 2024-25 Onwards) Program: BCA (Bachelor of Computer Application)

Sr. No.	Course Code	Name of the Course	Credits	Semester
1	NYCAM01	Web Application Development Technologies	2	II
2	NYCAM02	Data Structure using C	4	III
3	NYCAM03	Software Engineering	4	IV
4	NYCAM04	Linux Operating System	4	V
5	NYCAM05	Internet of Things	4	VI

NEP 2020- Open Elective Basket (For the Batch 2024-25 Onwards) Program: BCA (Bachelor of Computer Application)

Sr. No.	Course Code	Name of the Course	Semester
1	NCAO01	Fundamental of Computers	
2	NCAO02	IT Security	I
3	NCAO03	Applications of Artificial Intelligence	
4	NCAO04	Computer Hardware	
5	NCAO05	Introduction to IOT	II
6	NCAO06	Digital Fluency	
7	NCAO07	Fundamentals of Artificial Intelligence and Machine Learning	III
8	NCAO08	Operating System	111
9	NCAO09	Digital Electronics	IV
10	NCAO10	Big Data Analytics	1 V

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NEP 2020- Major Elective Basket (For the Batch 2024-25 Onwards) Program: BCA (Bachelor of Computer Application)

Sr. No.	Course Code	Name of the Course	Semester
1	NYCAE01	Computer Network	V
2	NYCAE02	Computer Graphics	V
3	NYCAE03	Software Testing	
4	NYCAE04	Big Data	VI
5	NYCAE05	Python Framework-Django	771
6	NYCAE06	Docker & Kubernetes	VII
7	NYCAE07	Data Science	VIII
8	NYCAE08	Advanced Algorithms	VIII

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