

PURBANCHAL UNIVERSITY
FACULTY OF ENGINEERING
Course Structure of Bachelor in Computer Engineering
Effective from 2021 Batch

First Semester											
S.N.	Course code	Subjects	C.H.	L	T	P	Internal		Final		Total
							Th	P	Th	P	
1	BSH1001	Mathematics I	3	3	3	-	40	-	60	-	100
2	BSH1002	Physics	4	4	2	2	40	10	60	15	125
3	BSH1004	English for Technical Communication	3	3	2	2	40	10	60	15	125
4	BCE1001	Computer Programming	3	3	1	3	40	30	60	20	150
5	BCE1002	Fundamental of Computing Technology	3	3	1	2	40	15	60	10	125
6	BME1001	Engineering Drawing	3	1	-	3	-	60	-	40	100
7	BME1002	Workshop Technology	2	1	-	2	10	40	-	-	50
		Total	21	18	9	14					775

Second Semester											
S.N.	Course code	Subjects	C.H.	L	T	P	Internal		Final		Total
							Th	P	Th	P	
1	BSH2005	Mathematics-II	3	3	3	-	40		60	-	100
2	BSH2003	Chemistry	3	3	2	2	40	10	60	15	125
3	BCE2003	Object Oriented Programming with C++	3	3	2	3	40	30	60	20	150
4	BEC2003	Digital Logic	3	3	1	3	40	25	60	-	125
5	BEL2003	Basic Electrical Engineering	3	3	1	2	40	25	60	-	125
6	BCI2003	Applied Mechanics	3	3	2	-	40	-	60	-	100
		Total	18	18	9	10					725

Note: C.H.: Credit Hour L: Lecture T: Tutorial P: Practical Th: Theory

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Third Semester											
S.N.	Course code	Subjects	C.H.	L	T	P	Internal		Final		Total
							Th	P	Th	P	
1	BSH3008	Mathematics-III	3	3	3	-	40		60	-	100
2	BCE3006	Data Structure and Algorithm	3	3	1	3	40	30	60	20	150
3	BCE3007	Object Oriented Analysis and Design	3	3	1	-	40	--	60	-	100
4	BCE3008	Computer Graphics	3	3	1	3	40	30	60	20	150
5	BEC3007	Electronic Devices and Circuits	3	3	1	2	40	25	60	-	125
6	BSH3009	Applied Sociology	2	2	1	-	20	-	30	-	50
7	BCE3009	Project I	3	1	-	3	-	60	-	40	100
		Total	20	18	8	11					775

Fourth Semester											
S.N.	Course code	Subjects	C.H.	L	T	P	Internal		Final		Total
							Th	P	Th	P	
1	BCE4005	Database Management System	3	3	1	3	40	30	60	20	150
2	BCE4011	Python Programming	3	3	2	3	40	30	60	20	150
3	BCE4012	Discrete Structure	3	3	2	-	40	--	60	-	100
4	BEC4006	Microprocessor	3	3	2	3	40	50	60	-	150
5	BEC4009	Communication System	3	3	1	3/2	40	25	60	-	125
6	BSH4011	Probability & Statistics	3	3	2	2	20	20	60	-	100
		Total	18	18	10	12.5					775

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Fifth Semester											
S.N.	Course code	Subjects	C.H.	L	T	P	Internal		Final		Total
							Th.	P.	Th.	P	
1	BCE5014	Algorithm Analysis and Design	3	3	2	-	40	-	60	-	100
2	BCE5015	Computer Architecture and Design	3	3	1	2	40	25	60	-	125
3	BCE5013	Numerical methods	3	3	1	3	40	30	60	20	150
4	BCE5016	Operating system	3	3	1	3	40	30	60	20	150
5	BSH5001	Engineering Economics	3	3	1	-	40	-	60	-	100
6	BSH5002	Research Methodology	2	2	1	-	20	-	30	-	50
7	BCE5017	Project-II	3	1	-	3	-	60	-	40	100
		Total	20	18	7	11					775

Sixth Semester											
S.N.	Course code	Subjects	C.H.	L	T	P	Internal		Final		Total
							Th	P	Th	P	
1	BCE6019	Artificial Intelligence	3	3	1	3	40	25	60	-	125
2	BCE6020	Computer Network	3	3	1	3	40	30	60	20	150
3	BCE6023	Internet of Things (IoT)	3	3	1	2	40	25	60	-	125
4	BCE6021	Software Engineering	3	3	1	-	40	-	60	-	100
5	BCE6022	Theory of Computation	3	3	1	3	40	30	60	20	150
6	BCE68--	Elective-I	3	3	1	2	40	25	60	-	125
		Total	18	18	7	10.5					775

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Seventh Semester											
S.N.	Course code	Subjects	C.H.	L	T	P	Internal		Final		Total
							Th	P	Th	P	
1	BCE7024	Distributed & Cloud Computing	3	3	1	2	40	25	60	-	125
2	BCE7025	Information Technology Project Management	3	3	1	-	40	-	60	-	100
3	BCE7026	Simulation and Modeling	3	3	1	2	40	25	60		125
4	BCE78--	Elective-II	3	3	1	2	40	25	60	-	125
5	BCE78--	Elective-III	3	3	1	2	40	25	60	-	125
6	BCE7027	Project-III (Part A)	3	1	-	3	-	60	-	40	100
		Total	18	16	5	11					700

Eighth Semester											
S.N.	Course code	Subjects	C.H.	L	T	P	Internal		Final		Total
							Th	P	Th	P	
1	BCE8028	Cyber Security	3	3	1	-	40	-	60	-	100
2	BEG8009	Engineering Professional Practice	2	2	-	-	20	-	30	-	50
3	BCE88--	Elective-IV	3	3	1	2	40	25	60	-	125
4	BCE8028	Project-III (Part B)	3	1	-	4	-	60	-	40	100
5	BCE8029	Internship	3	3	1	-		60	-	40	100
		Total	17	12	3	6					475

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Elective-I

- Data Mining and Data Warehousing (BCE6800)
- Multimedia Technology (BCE6801)
- Distributed System (BCE6802)
- High Performance Computing (BCE6803)
- Machine Learning (BCE6804)
- Cryptography and Network Security (BCE6805)
- Mobile and sensor Computing (BCE6806)
- Unix Programming (BCE6807)

Elective-II

- Big Data Technologies (BCE7808)
- Real Time Operating System (BCE7809)
- Compiler design (BCE7810)
- Java programming (BCE7811)
- Deep Learning (BCE7812)
- Business Intelligence (BCE7813)
- Human Computer Interaction (BCE7814)

Elective-III

- Advanced Database Programming (BCE7815)
- Fault Tolerant System (BCE7816)
- Software Security (BCE7817)
- Web Security (BCE7818)
- Quantum Computing (BCE7819)
- Augmented and Virtual reality (BCE7820)
- GIS (BCE7821)

Elective-IV

- Data Science (BCE8822)
- Next Generation Network (BCE8823)
- Computational Cognitive Science (BCE8824)
- Agile Software Development (BCE8825)
- Block Chain (BCE8826)
- Digital Solutions for Climate Change (BCE8827)
- Automation and Robotics (BCE8828)

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