

Programme: B.Tech

Computer Science & Engineering

Scheme

W.e.f. Academic Session 2026-2027



BUEST

SCHOOL OF ENGINEERING & EMERGING TECHNOLOGIES

(Common Curriculum for B. Tech I year – All Branches)

Semester - I (Group-A)

Sr.No	Code	Course Title	L	T	P	Credit
1	UMA-101	Engineering Mathematics I	3	1	0	3.5
2	UPY-101	Engineering Physics	3	1	2	4.5
3	XXX-XXX	Department Elective-1	-	-	-	-
4	UHU-101	Communication and Professional Skills in English	3	0	2	4.0
5	UEC-105	Principles of Electronics Engineering	3	1	2	4.5
6	UME-105	Principles of Mechanical Engineering	3	1	2	4.5
7	UPD-101	Personality Development Programme	2	0	0	2.0
Department Elective – 1						
1	UCS-103	Fundamentals of Computers & C Programming	3	1	2	4.5
2	UCS-104	Programming in C	3	1	2	4.5
		Total	20	5	10	27.5

Total Hours: 35

(Group-B)

Sr.No	Code	Course Title	L	T	P	Credit
1	UMA-101	Engineering Mathematics I	3	1	0	3.5
2	UCH-101	Engineering Chemistry	3	1	2	4.5
3	XXX-XXX	Department Elective-1	-	-	-	-
4	UEE-105	Principles of Electrical Engineering	3	1	2	4.5
5	UEG-101	Engineering Graphics Drawing	0	0	6	3
6	UEN-101	Environmental Science	3	0	0	3
7	UWP-110	Workshop Practice	0	0	3	1.5
Department Elective – 1						
1	UCS-103	Fundamentals of Computers & C Programming	3	1	2	4.5
2	UCS-104	Programming in C	3	1	2	4.5
		Total	15	4	15	24.5

Total Hours: 34

(Common Curriculum for B. Tech I year – All Branches)

Semester – II (Group-A)

Sr.No	Code	Course Title	L	T	P	Credit
1	UMA-102	Engineering Mathematics II	3	1	0	3.5
2	UCH-101	Engineering Chemistry	3	1	2	4.5
3	UEE-105	Principles of Electrical Engineering	3	1	2	4.5
4	UEG-101	Engineering Graphics Drawing	0	0	6	3
5	UEN-101	Environmental Science	3	0	0	3
6	UWP-110	Workshop Practice	0	0	3	1.5
7	XXX-XXX	Department Elective-2	-	-	-	-
Department Elective – 2						
1	UCS-105	Introduction to PHP using IDE	3	1	2	4.5
2	UCS-102	Advanced C Programming	3	1	2	4.5
		Total	15	4	15	24.5

Total Hours: 34

(Group-B)

Sr.No	Code	Course Title	L	T	P	Credit
1	UMA-102	Engineering Mathematics II	3	1	0	3.5
2	UPY-101	Engineering Physics	3	1	2	4.5
3	UHU-101	Communication & Professional skills in English	3	0	2	4
4	UEC-105	Principles of Electronics Engineering	3	1	2	4.5
5	UME-105	Principles of Mechanical Engineering	3	1	2	4.5
6	UPD-101	Personality Development Programme	2	0	0	2.0
7	XXX-XXX	Department Elective-2	-	-	-	-
Department Elective – 2						
1	UCS-105	Introduction to PHP using IDE	3	1	2	4.5
2	UCS-102	Advanced C Programming	3	1	2	4.5
		Total	20	5	10	27.5

Total Hours:35

SUMMER BREAK

Sr.No.	Code	Subject	L	T	P	Credit
1.	UTR- 201	Industrial Training	0	0	0	4

SEMESTER –III

Sr.No	Code	Course Title	L	T	P	Credit
1	UCS-222	Relational Database Management Systems	3	1	2	4.5
2	UEC-201	Digital Electronics	3	1	2	4.5
3	UCS-200	Data Structures	3	1	2	4.5
4	UCS-201	Computer Architecture and Organization	3	1	0	3.5
5	UCS-230	Python Programming	3	1	2	4.5
6	UTR-201	Industrial Training (Undertaken during Summer Vacations)	0	0	0	4.0
7	UPD-201	Personality Development Programme	2	0	0	2.0
8	XXX-XXX	Department Elective-3	-	-	-	-
Department Elective – 3						
1	UCS-205	Introduction to Virtualization Technologies	3	1	0	3.5
2	UCS-209	Human Aspects of Information Technology	3	1	0	3.5
3	UCS-210	Ecommerce and ERP	3	1	0	3.5

SEMESTER –IV

Sr.No	Code	Course Title	L	T	P	Credit
1	UCS-250	Object Oriented Programming	3	1	2	4.5
2	UCS-255	Analysis and Design of Algorithms	3	1	0	3.5
3	UCS-281	Operating Systems	3	1	2	4.5
4	UCS-252	Software Engineering	3	1	0	3.5
5	UCS-253	Computer Networks	3	1	2	4.5
6	UPD-251	Personality Development Programme	2	0	0	2
7	XXX-XXX	Department Elective-4	-	-	-	-
8	XXX-XXX	Department Elective-5	-	-	-	-

Department Elective – 4						
1	UCS-224	Latest Trends in Computing-I	0	0	0	1
2	UGP-251	General Proficiency	0	0	0	1
Department Elective – 5						
1	UCS-256	Business Strategy and Analytics	3	1	0	3.5
3	UCS-254	Modeling and Simulation	3	1	0	3.5

SUMMER BREAK

Sr.No.	Code	Subject	L	T	P	Credit
1.	UTR- 301	Industrial Training	0	0	0	4

SEMESTER –V

Sr.No	Code	Course Title	L	T	P	Credit
1	UMA-310	Discrete Mathematics	3	1	0	3.5
2	UCS-301	Web Technologies	3	1	2	4.5
3	UCS-321	Artificial Intelligence	3	1	2	4.5
4	UCS-306	Programming in Java	3	1	2	4.5
5	UTR-301	Industrial Training (Undertaken during Summer Vacations)	0	0	0	4
6	UPD-301	Personality Development Programme	2	0	0	2
7	XXX-XXX	Department Elective-6	-	-	-	-
8	XXX-XXX	Department Elective-7	-	-	-	-
Department Elective – 6						
1	UCS-304	Linux Operating System	3	1	2	4.5
3	UCS-335	Parallel Computing	3	1	0	3.5
3	UCS-322	Information Security Management	3	1	2	4.5
3	UCS-305	Computer Graphics	3	1	2	4.5
Department Elective – 7						
1	UCS-345	Cloud Computing	3	1	0	3.5
2	UCS-312	Principles of programming language	3	1	0	3.5
3	UCS-314	Advance Databases	3	1	0	3.5
4	UCS-308	Software Project Management	3	1	0	3.5
5	UCS-315	Information Storage and Management	3	1	0	3.5
6	UCS-339	Data Science	3	1	0	3.5

SEMESTER-VI

Sr.No	Code	Course Title	L	T	P	Credit
1	UCS-350	Theory of Computation	3	1	0	3.5

2	UCS-351	Internet of Things	3	1	0	3.5
3	UCS-356	Mobile Application Development	3	1	2	4.5
4	UCS- 358	Machine Learning	3	1	2	4.5
6	UPD-351	Personality Development Programme	2	0	0	2
6	XXX-XXX	Department Elective-8	-	-	-	-
7	XXX-XXX	Department Elective-9	-	-	-	-
8	XXX-XXX	Department Elective-10	-	-	-	-
	Department Elective – 8					
1	UCS-354	Latest Trends in Computing-II	0	0	0	1
2	UGP-351	General Proficiency	0	0	0	1
	Department Elective--- 9					
1	UCS-355	Mobile Communication Network Design	3	1	0	3.5
2	UCS-357	Security in Cloud	3	1	0	3.5
3	UCS-359	Infrastructure Solutions on Cloud	3	1	0	3.5
4	UCS-379	Fundamentals of Blockchain	3	1	0	3.5
	Department Elective – 10					
1	UCS-360	Agile Software Development	3	1	0	3.5
2	UCS-361	Advanced Statistical Analysis	3	1	0	3.5
4	UCS-366	Cloud Deployment Models	3	1	2	4.5
5	UCS-376	Soft computing	3	1	0	3.5

SUMMER BREAK

Sr. No.	Code	Subject	L	T	P	Credit
1.	UTR- 401	Industrial Training	0	0	0	4

SEMESTER –VII

Sr.No	Code	Course Title	L	T	P	Credit
1	UCS-414	Cyber Security	3	1	0	3.5
2.	UCS-432	Software Testing and Quality Assurance	3	1	0	3.5
2	UCS-413	Minor Project	0	0	6	3.0
3	UTR-401	Industrial Training (Undertaken during Summer Vacations)	0	0	0	4
4	UPD-401	Personality Development Programme	2	0	0	2
5	XXX-XXX	Department Elective-11	-	-	-	-
6	XXX-XXX	Department Elective-12	-	-	-	-
7	XXX-XXX	Open Elective-1	3	1	0	3.5
Department Elective – 11						
1	UCS-403	High Performance Computing	3	1	0	3.5
2.	UCS-405	Multimedia Technologies	3	1	0	3.5
3.	UCS-406	Social Network Analysis	3	1	0	3.5
Department Elective – 12						
1	UCS-416	Wireless and AD-Hoc Network	3	1	0	3.5
2	UCS-417	XML Programming	3	1	2	4.5
3	UCS-423	Deep Learning	3	1	0	3.5
	Open Elective – 1					

1	UMG-476	Human Ethics & values	3	1	0	3.5
2	UEC-462	Biomedical Instrumentation	3	1	0	3.5
3	UEC-463	Television Engineering	3	1	0	3.5
4	UEE-403	Energy Management	3	1	0	3.5
5	UEE-452	Non-Conventional Electrical Power Generation	3	1	0	3.5
6	UCE-312	Advance Construction Techniques and Project Management	3	1	0	3.5
7	UCE-365	Advanced Environmental Engineering	3	1	0	3.5
8	UME – 410	Basic Manufacturing Technology	3	1	0	3.5
9	UME – 411	Measurement Techniques	3	1	0	3.5

SEMESTER –VIII

Sr.No	Code	Course Title	L	T	P	Credit
1	XXX-XXX	Department Elective-13	-	-	-	-
2	XXX-XXX	Department Elective-14	-	-	-	-
3	XXX-XXX	Department Elective-15	-	-	-	-
4	UCS-472	Major Project	0	0	16	8
5	UPD-451	Personality Development Programme	2	0	0	2
6	XXX-XXX	Open Elective-II	3	1	0	3.5
7	XXX-XXX	Open Elective-III	3	1	0	3.5
Department Elective – 13						
1.	UCS-465	Ethical Hacking	3	1	0	3.5
2.	UCS-466	Mobile Analytics	3	1	0	3.5
3.	UCS-467	Data Warehouse and Data Mining	3	1	0	3.5
4.	UCS-477	Business Process Management	3	1	0	3.5
Department Elective – 14						
1.	UCS-473	Introduction to Intelligent Process Automation	3	1	0	3.5
2.	UCS-474	IT Applications and Open Standards	3	1	0	3.5
3.	UCS-475	Wireless Sensor Networks	3	1	0	3.5
4.	UCS-469	Big Data Analytics	3	1	0	3.5
Department Elective – 15						
1	UGP-451	General Proficiency	0	0	0	1
2	UCS-480	Latest Trends in Computing-III	0	0	0	1
Open Elective – II						
1	UMG-450	Entrepreneurship Development & Enterprise Management	3	1	0	3.5
2	UEC-464	Satellite Communication	3	1	0	3.5
3	UEC-465	Digital Signal Processing & Applications	3	1	0	3.5
4	UEE-457	Transformer Engineering	3	1	0	3.5
5	UEE-411	Direct Energy Conversion	3	1	0	3.5
6	UCE-311	Advance Concrete Technology	3	1	0	3.5
7	UCE-409	Geographic Information Systems For Resources Management	3	1	0	3.5
8	UME –464	Renewable Energy Sources	3	1	0	3.5
9	UME – 466	Automation & Robotics	3	1	0	3.5

		Open Elective – III				
1	UMG-475	Total Quality Management	3	1	0	3.5
2	UEC-466	Optical Communication	3	1	0	3.5
3	UEC-467	Principles of Digital Communication	3	1	0	3.5
4	UCE-476	Disaster Management	3	1	0	3.5
5	UCE-412	Building Project and Estimates	3	1	0	3.5
6	UEE-456	Hydro Power Station Design	3	1	0	3.5
7	UEE-408	Illumination Engineering	3	1	0	3.5
8	UME – 459	Engineering In Industry & Entrepreneurship	3	1	0	3.5
9	UME – 458	Emerging Automotive Technologies	3	1	0	3.5

NOTE: For final semester, students may be allowed for industry internship with prior permission of HOD/DEAN. Their Curriculum will be covered through online mode/internship performance. However, it is mandatory to appear in MSTs and End Term exams.

Programme: B.Tech

**Computer Science & Engineering
(Artificial Intelligence & Machine Learning)**

Scheme

W.e.f. Academic Session 2026-2027



BUEST

SCHOOL OF ENGINEERING & EMERGING TECHNOLOGIES

(Common Curriculum for B. Tech I year – All Branches)

Semester - I (Group-A)

Sr.No	Code	Course Title	L	T	P	Credit
1	UMA-101	Engineering Mathematics I	3	1	0	3.5
2	UPY-101	Engineering Physics	3	1	2	4.5
3	XXX-XXX	Department Elective-1	-	-	-	-
4	UHU-101	Communication and Professional Skills in English	3	0	2	4.0
5	UEC-105	Principles of Electronics Engineering	3	1	2	4.5
6	UME-105	Principles of Mechanical Engineering	3	1	2	4.5
7	UPD-101	Personality Development Programme	2	0	0	2.0
Department Elective – 1						
1	UCS-103	Fundamentals of Computers & C Programming	3	1	2	4.5
2	UCS-104	Programming in C	3	1	2	4.5
		Total	20	5	10	27.5

Total Hours: 35

(Group-B)

Sr.No	Code	Course Title	L	T	P	Credit
1	UMA-101	Engineering Mathematics I	3	1	0	3.5
2	UCH-101	Engineering Chemistry	3	1	2	4.5
3	XXX-XXX	Department Elective-1	-	-	-	-
4	UEE-105	Principles of Electrical Engineering	3	1	2	4.5
5	UEG-101	Engineering Graphics Drawing	0	0	6	3
6	UEN-101	Environmental Science	3	0	0	3
7	UWP-110	Workshop Practice	0	0	3	1.5
Department Elective – 1						
1	UCS-103	Fundamentals of Computers & C Programming	3	1	2	4.5
2	UCS-104	Programming in C	3	1	2	4.5
		Total	15	4	15	24.5

Total Hours: 34

(Common Curriculum for B. Tech I year – All Branches)

Semester – II (Group-A)

Sr.No	Code	Course Title	L	T	P	Credit
1	UMA-102	Engineering Mathematics II	3	1	0	3.5
2	UCH-101	Engineering Chemistry	3	1	2	4.5
3	UEE-105	Principles of Electrical Engineering	3	1	2	4.5
4	UEG-101	Engineering Graphics Drawing	0	0	6	3
5	UEN-101	Environmental Science	3	0	0	3
6	UWP-110	Workshop Practice	0	0	3	1.5
7	XXX-XXX	Department Elective-2	-	-	-	-
Department Elective – 2						
1	UCS-105	Introduction to PHP using IDE	3	1	2	4.5
2	UCS-102	Advanced C Programming	3	1	2	4.5
		Total	15	4	15	24.5

Total Hours: 34

(Group-B)

Sr.No	Code	Course Title	L	T	P	Credit
1	UMA-102	Engineering Mathematics II	3	1	0	3.5
2	UPY-101	Engineering Physics	3	1	2	4.5
3	UHU-101	Communication & Professional skills in English	3	0	2	4
4	UEC-105	Principles of Electronics Engineering	3	1	2	4.5
5	UME-105	Principles of Mechanical Engineering	3	1	2	4.5
6	UPD-101	Personality Development Programme	2	0	0	2.0
7	XXX-XXX	Department Elective-2	-	-	-	-
Department Elective – 2						
1	UCS-105	Introduction to PHP using IDE	3	1	2	4.5
2	UCS-102	Advanced C Programming	3	1	2	4.5
		Total	20	5	10	27.5

Total Hours: 35

SUMMER BREAK

Sr.No.	Code	Subject	L	T	P	Credit
1.	UTR- 201	Industrial Training	0	0	0	4

SEMESTER –III

Sr.No	Code	Course Title	L	T	P	Credit
1	UCS-222	Relational Database Management Systems	3	1	2	4.5
2	UEC-201	Digital Electronics	3	1	2	4.5
3	UCS-200	Data Structures	3	1	2	4.5
4	UCS-201	Computer Architecture and Organization	3	1	0	3.5
5	UCS-230	Python Programming	3	1	2	4.5
6	UTR-201	Industrial Training (Undertaken during Summer Vacations)	0	0	0	4.0
7	UPD-201	Personality Development Programme	2	0	0	2.0
8	XXX-XXX	Department Elective-3	-	-	-	-
Department Elective – 3						
1	UCS-235	Artificial Intelligence	3	1	0	3.5
2	UCS-231	Cognitive Science and Analytics	3	1	0	3.5
3	UCS-232	Data Science	3	1	0	3.5

SEMESTER –IV

Sr.No	Code	Course Title	L	T	P	Credit
1	UCS-250	Object Oriented Programming	3	1	2	4.5
2	UCS-255	Analysis and Design of Algorithms	3	1	0	3.5
3	UCS-281	Operating Systems	3	1	2	4.5
4	UCS-252	Software Engineering	3	1	0	3.5
5	UCS-253	Computer Networks	3	1	2	4.5
6	UPD-251	Personality Development Programme	2	0	0	2
7	XXX-XXX	Department Elective-4	-	-	-	-

8	XXX-XXX	Department Elective-5	-	-	-	-
Department Elective – 4						
1	UCS-224	Latest Trends in Computing - I	0	0	0	1
2	UGP-251	General Proficiency	0	0	0	1
Department Elective – 5						
1	UCS-271	Machine Learning	3	1	2	4.5
2	UCS-273	Data Wrangling	3	1	0	3.5

SUMMER BREAK

Sr.No.	Code	Subject	L	T	P	Credit
1.	UTR- 301	Industrial Training	0	0	0	4

SEMESTER –V

Sr.No	Code	Course Title	L	T	P	Credit
1	UMA-310	Discrete Mathematics	3	1	0	3.5
2	UCS-301	Web Technologies	3	1	2	4.5
3	UCS-305	Computer Graphics	3	1	2	4.5
4	UCS-306	Programming in Java	3	1	2	4.5
5	UTR-301	Industrial Training (Undertaken during Summer Vacations)	0	0	0	4
6	UPD-301	Personality Development Programme	2	0	0	2
7	XXX-XXX	Department Elective-6	-	-	-	-
8	XXX-XXX	Department Elective-7	-	-	-	-
Department Elective – 6						
1	UCS-330	Artificial intelligence & Expert System	3	1	2	4.5
2	UCS-331	Business Intelligence	3	1	2	4.5
3	UCS-304	Linux Operating System	3	1	2	4.5
Department Elective – 7						
1	UCS-340	Data Mining and Warehousing	3	1	0	3.5
2	UCS-338	Pattern Recognition	3	1	0	3.5

SEMESTER-VI

Sr.No	Code	Course Title	L	T	P	Credit
1	UCS-350	Theory of Computation	3	1	0	3.5
2	UCS-351	Introduction to Internet of Things	3	1	0	3.5
3	UCS-356	Mobile Application Development	3	1	2	4.5
4	UCS-352	Fundamentals of Blockchain	3	1	0	3.5
5	UPD-351	Personality Development Programme	2	0	0	2
6	XXX-XXX	Department Elective-8	-	-	-	-
7	XXX-XXX	Department Elective-9	-	-	-	-

8	XXX-XXX	Department Elective-10	-	-	-	-
Department Elective – 8						
1	UCS-354	Latest Trends in Computing - II	0	0	0	1
2	UGP-351	General Proficiency	0	0	0	1
Department Elective – 9						
1	UCS-371	Neural Networks	3	1	0	3.5
2	UCS-380	Cryptography and Network Security	3	1	0	3.5
Department Elective—10						
1	UCS-375	Advance Artificial Intelligence	3	1	0	3.5
2	UCS-382	Big Data Analytics	3	1	2	4.5
3	UCS-381	Deep Learning	3	1	0	3.5

SUMMER BREAK

Sr. No.	Code	Subject	L	T	P	Credit
1.	UTR- 401	Industrial Training	0	0	0	4

SEMESTER –VII

Sr.No	Code	Course Title	L	T	P	Credit
1	UCS-414	Cyber Security	3	1	2	4.5
2.	UCS-432	Software Testing and Quality Assurance	3	1	0	3.5
2	UCS-413	Minor Project	0	0	6	3
3	UTR-401	Industrial Training (Undertaken during Summer Vacations)	0	0	0	4
4	UPD-401	Personality Development Programme	2	0	0	2
5	XXX-XXX	Department Elective-11	-	-	-	-
6	XXX-XXX	Department Elective-12	-	-	-	-
7	XXX-XXX	Open Elective-1	3	1	0	3.5
Department Elective – 11						
1.	UCS-433	Human computer interaction	3	1	0	3.5
2.	UCS-434	Virtual Reality and Augmented Reality	3	1	0	3.5
3.	UCS-441	Natural Language Processing	3	1	0	3.5
Department Elective – 12						
1	UCS-438	Predictive and Advanced Analytics	3	1	0	3.5
2	UCS-439	Data Visualization	3	1	0	3.5
3	UCS-442	Soft Computing	3	1	0	3.5
Open Elective – 1						
1	UMG-476	Human Ethics & values	3	1	0	3.5
2	UEC-462	Biomedical Instrumentation	3	1	0	3.5
3	UEC-463	Television Engineering	3	1	0	3.5
4	UEE-403	Energy Management	3	1	0	3.5
5	UEE-452	Non-Conventional Electrical Power Generation	3	1	0	3.5
6	UCE-312	Advance Construction Techniques and Project Management	3	1	0	3.5
7	UCE-365	Advanced Environmental Engineering	3	1	0	3.5
8	UME – 410	Basic Manufacturing Technology	3	1	0	3.5

9	UME – 411	Measurement Techniques	3	1	0	3.5
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SEMESTER –VIII

Sr.No	Code	Course Title	L	T	P	Credit
1	XXX-XXX	Department Elective-13	-	-	-	-
2	XXX-XXX	Department Elective-14	-	-	-	-
3	XXX-XXX	Department Elective-15	-	-	-	-
4	UCS-472	Major Project	0	0	16	8
5	UPD-451	Personality Development Programme	2	0	0	2
6	XXX-XXX	Open Elective-II	3	1	0	3.5
7	XXX-XXX	Open Elective-III	3	1	0	3.5
Department Elective – 13						
1.	UCS-461	Speech Recognition and understanding	3	1	0	3.5
2.	UCS-462	Logic and Knowledge Representation	3	1	0	3.5
3.	UCS-455	Computer Vision	3	1	0	3.5
Department Elective – 14						
1	UCS-468	Domain Specific Predictive Analytics	3	1	0	3.5
2	UCS-469	Social and Information Network Analysis	3	1	0	3.5
Department Elective – 15						
1	UGP-451	General Proficiency	0	0	0	1
2	UCS-480	Latest Trends in Computing -III	0	0	0	1
Open Elective – II						
1	UMG-450	Entrepreneurship Development & Enterprise Management	3	1	0	3.5
2	UEC-464	Satellite Communication	3	1	0	3.5
3	UEC-465	Digital Signal Processing & Applications	3	1	0	3.5
4	UEE-457	Transformer Engineering	3	1	0	3.5
5	UEE-411	Direct Energy Conversion	3	1	0	3.5
6	UCE-311	Advance Concrete Technology	3	1	0	3.5
7	UCE-409	Geographic Information Systems For Resources Management	3	1	0	3.5
8	UME –464	Renewable Energy Sources	3	1	0	3.5
9	UME – 466	Automation & Robotics	3	1	0	3.5
Open Elective – III						
1	UMG-475	Total Quality Management	3	1	0	3.5
2	UEC-466	Optical Communication	3	1	0	3.5
3	UEC-467	Principles of Digital Communication	3	1	0	3.5
4	UCE-476	Disaster Management	3	1	0	3.5
5	UCE-412	Building Project and Estimates	3	1	0	3.5
6	UEE-456	Hydro Power Station Design	3	1	0	3.5
7	UEE-408	Illumination Engineering	3	1	0	3.5
8	UME – 459	Engineering In Industry & Entrepreneurship	3	1	0	3.5
9	UME – 458	Emerging Automotive Technologies	3	1	0	3.5

NOTE: For final semester, students may be allowed for industry internship with prior permission of HOD/DEAN. Their Curriculum will be covered through online mode/internship performance. However, it is mandatory to appear in MSTs and End Term exams.

Programme: B.Tech

Computer Science & Engineering (Data Science)

Scheme

W.e.f. Academic Session 2026-2027



BUEST

SCHOOL OF ENGINEERING & EMERGING TECHNOLOGIES

(Common Curriculum for B. Tech I year – All Branches)

Semester - I (Group-A)

Sr.No	Code	Course Title	L	T	P	Credit
1	UMA-101	Engineering Mathematics I	3	1	0	3.5
2	UPY-101	Engineering Physics	3	1	2	4.5
3	XXX-XXX	Department Elective-1	-	-	-	-
4	UHU-101	Communication and Professional Skills in English	3	0	2	4.0
5	UEC-105	Principles of Electronics Engineering	3	1	2	4.5
6	UME-105	Principles of Mechanical Engineering	3	1	2	4.5
7	UPD-101	Personality Development Programme	2	0	0	2.0
Department Elective – 1						
1	UCS-103	Fundamentals of Computers & C Programming	3	1	2	4.5
2	UCS-104	Programming in C	3	1	2	4.5
		Total	20	5	10	27.5

Total Hours: 35

(Group-B)

Sr.No	Code	Course Title	L	T	P	Credit
1	UMA-101	Engineering Mathematics I	3	1	0	3.5
2	UCH-101	Engineering Chemistry	3	1	2	4.5
3	XXX-XXX	Department Elective-1	-	-	-	-
4	UEE-105	Principles of Electrical Engineering	3	1	2	4.5
5	UEG-101	Engineering Graphics Drawing	0	0	6	3
6	UEN-101	Environmental Science	3	0	0	3
7	UWP-110	Workshop Practice	0	0	3	1.5
Department Elective – 1						
1	UCS-103	Fundamentals of Computers & C Programming	3	1	2	4.5
2	UCS-104	Programming in C	3	1	2	4.5
		Total	15	4	15	24.5

Total Hours: 34

(Common Curriculum for B. Tech I year – All Branches)

Semester – II (Group-A)

Sr.No	Code	Course Title	L	T	P	Credit
1	UMA-102	Engineering Mathematics II	3	1	0	3.5
2	UCH-101	Engineering Chemistry	3	1	2	4.5
3	UEE-105	Principles of Electrical Engineering	3	1	2	4.5
4	UEG-101	Engineering Graphics Drawing	0	0	6	3
5	UEN-101	Environmental Science	3	0	0	3
6	UWP-110	Workshop Practice	0	0	3	1.5
7	XXX-XXX	Department Elective-2	-	-	-	-
Department Elective – 2						
1	UCS-105	Introduction to PHP using IDE	3	1	2	4.5
2	UCS-102	Advanced C Programming	3	1	2	4.5
		Total	15	4	15	24.5

Total Hours: 34

(Group-B)

Sr.No	Code	Course Title	L	T	P	Credit
1	UMA-102	Engineering Mathematics II	3	1	0	3.5
2	UPY-101	Engineering Physics	3	1	2	4.5
3	UHU-101	Communication & Professional skills in English	3	0	2	4
4	UEC-105	Principles of Electronics Engineering	3	1	2	4.5
5	UME-105	Principles of Mechanical Engineering	3	1	2	4.5
6	UPD-101	Personality Development Programme	2	0	0	2.0
7	XXX-XXX	Department Elective-2	-	-	-	-
Department Elective – 2						
1	UCS-105	Introduction to PHP using IDE	3	1	2	4.5
2	UCS-102	Advanced C Programming	3	1	2	4.5
		Total	20	5	10	27.5

Total Hours:35

SUMMER BREAK

Sr.No.	Code	Subject	L	T	P	Credit
1.	UTR- 201	Industrial Training	0	0	0	4

SEMESTER –III

Sr.No	Code	Course Title	L	T	P	Credit
1	UCS-222	Relational Database Management Systems	3	1	2	4.5
2	UEC-201	Digital Electronics	3	1	2	4.5
3	UCS-200	Data Structures	3	1	2	4.5
4	UCS-201	Computer Architecture and Organization	3	1	0	3.5
5	UCS-230	Python Programming	3	1	2	4.5
6	UTR-201	Industrial Training (Undertaken during Summer Vacations)	0	0	0	4.0
7	UPD-201	Personality Development Programme	2	0	0	2.0
8	XXX-XXX	Department Elective-3	-	-	-	-
Department Elective – 3						
1	UCS-232	Data Science	3	1	0	3.5
2	UCS-234	Business Intelligence & Analytics	3	1	0	3.5

SEMESTER –IV

Sr.No	Code	Course Title	L	T	P	Credit
1	UCS-250	Object Oriented Programming	3	1	2	4.5
2	UCS-255	Analysis and Design of Algorithms	3	1	0	3.5
3	UCS-281	Operating Systems	3	1	2	4.5
4	UCS-252	Software Engineering	3	1	0	3.5
5	UCS-253	Computer Networks	3	1	2	4.5
6	UPD-251	Personality Development Programme	2	0	0	2
7	XXX-XXX	Department Elective-4	-	-	-	-
8	XXX-XXX	Department Elective-5	-	-	-	-
Department Elective – 4						
1	UCS-224	Latest Trends in Computing-1	0	0	0	1
2	UGP-251	General Proficiency	0	0	0	1

1	UCS-373	Cloud Computing	3	1	0	3.5
2	UCS-380	Programming in Data Science	3	1	0	3.5
Department Elective – 10						
1	UCS-377	Text Mining	3	1	0	3.5
2	UCS-378	Distributed Database management system	3	1	2	4.5
3	UCS-379	Fundamentals of Blockchain	3	1	0	3.5

SUMMER BREAK

Sr. No.	Code	Subject	L	T	P	Credit
1.	UTR- 401	Industrial Training	0	0	0	4

SEMESTER –VII

Sr.No	Code	Course Title	L	T	P	Credit
1	UCS-414	Cyber Security	3	1	0	3.5
2.	UCS-432	Software Testing and Quality Assurance	3	1	0	3.5
2	UCS-413	Minor Project	0	0	6	3
3	UTR-401	Industrial Training (Undertaken during Summer Vacations)	0	0	0	4
4	UPD-401	Personality Development Programme	2	0	0	2
5	XXX-XXX	Department Elective-11	-	-	-	-
6	XXX-XXX	Department Elective-12	-	-	-	-
7	XXX-XXX	Open Elective-1	3	1	0	3.5
Department Elective – 11						
1.	UCS-441	Predictive Modeling with R	3	1	2	4.5
2.	UCS-436	Parallel and distributed computing	3	1	0	3.5
Department Elective – 12						
1	UCS-442	Advanced Data Visualization Techniques	3	1	2	4.5
2	UCS-440	Large scale data processing	3	1	0	3.5
Open Elective – 1						
1	UMG-476	Human Ethics & values	3	1	0	3.5
2	UEC-462	Biomedical Instrumentation	3	1	0	3.5
3	UEC-463	Television Engineering	3	1	0	3.5
4	UEE-403	Energy Management	3	1	0	3.5
5	UEE-452	Non-Conventional Electrical Power Generation	3	1	0	3.5
6	UCE-312	Advance Construction Techniques and Project Management	3	1	0	3.5
7	UCE-365	Advanced Environmental Engineering	3	1	0	3.5
8	UME-410	Basic Manufacturing Technology	3	1	0	3.5
9	UME-411	Measurement Techniques	3	1	0	3.5

SEMESTER –VIII

Sr.No	Code	Course Title	L	T	P	Credit
1	XXX-XXX	Department Elective-13	-	-	-	-
2	XXX-XXX	Department Elective-14	-	-	-	-
3	XXX-XXX	Department Elective-15	-	-	-	-
4	UCS-472	Major Project	0	0	16	8

5	UPD-451	Personality Development Programme	2	0	0	2
6	XXX-XXX	Open Elective-II	3	1	0	3.5
7	XXX-XXX	Open Elective-III	3	1	0	3.5
Department Elective – 13						
1.	UCS-465	Ethical Hacking	3	1	0	3.5
2.	UCS-460	Social and Web Analytics	3	1	0	4.5
Department Elective – 14						
1	UCS-470	ANN and Deep Learning	3	1	0	3.5
2	UCS-471	Data Science Applications of NLP	3	1	0	3.5
Department Elective – 15						
1	UGP-451	General Proficiency	0	0	0	1
2	UCS-480	Latest Trends in Computing-III	0	0	0	1
Open Elective – II						
1	UMG-450	Entrepreneurship Development & Enterprise Management	3	1	0	3.5
2	UEC-464	Satellite Communication	3	1	0	3.5
3	UEC-465	Digital Signal Processing & Applications	3	1	0	3.5
4	UEE-457	Transformer Engineering	3	1	0	3.5
5	UEE-411	Direct Energy Conversion	3	1	0	3.5
6	UCE-311	Advance Concrete Technology	3	1	0	3.5
7	UCE-409	Geographic Information Systems For Resources Management	3	1	0	3.5
8	UME-464	Renewable Energy Sources	3	1	0	3.5
9	UME -466	Automation & Robotics	3	1	0	3.5
Open Elective – III						
1	UMG-475	Total Quality Management	3	1	0	3.5
2	UEC-466	Optical Communication	3	1	0	3.5
3	UEC-467	Principles of Digital Communication	3	1	0	3.5
4	UCE-476	Disaster Management	3	1	0	3.5
5	UCE-412	Building Project and Estimates	3	1	0	3.5
6	UEE-456	Hydro Power Station Design	3	1	0	3.5
7	UEE-408	Illumination Engineering	3	1	0	3.5
8	UME-459	Engineering In Industry & Entrepreneurship	3	1	0	3.5
9	UME-458	Emerging Automotive Technologies	3	1	0	3.5

NOTE: For final semester, students may be allowed for industry internship with prior permission of HOD/DEAN. Their Curriculum will be covered through online mode/internship performance. However, it is mandatory to appear in MSTs and End Term exams.

Programme: B.Tech

Computer Science & Engineering (Software Engineering)

Scheme

W.e.f. Academic Session 2026-2027



BUEST

SCHOOL OF ENGINEERING & EMERGING TECHNOLOGIES

(Common Curriculum for B. Tech I year – All Branches)

Semester - I (Group-A)

Sr.No	Code	Course Title	L	T	P	Credit
1	UMA-101	Engineering Mathematics I	3	1	0	3.5
2	UPY-101	Engineering Physics	3	1	2	4.5
3	XXX-XXX	Department Elective-1	-	-	-	-
4	UHU-101	Communication and Professional Skills in English	3	0	2	4.0
5	UEC-105	Principles of Electronics Engineering	3	1	2	4.5
6	UME-105	Principles of Mechanical Engineering	3	1	2	4.5
7	UPD-101	Personality Development Programme	2	0	0	2.0
Department Elective – 1						
1	UCS-103	Fundamentals of Computers & C Programming	3	1	2	4.5
2	UCS-104	Programming in C	3	1	2	4.5
		Total	20	5	10	27.5

Total Hours: 35

(Group-B)

Sr.No	Code	Course Title	L	T	P	Credit
1	UMA-101	Engineering Mathematics I	3	1	0	3.5
2	UCH-101	Engineering Chemistry	3	1	2	4.5
3	XXX-XXX	Department Elective-1	-	-	-	-
4	UEE-105	Principles of Electrical Engineering	3	1	2	4.5
5	UEG-101	Engineering Graphics Drawing	0	0	6	3
6	UEN-101	Environmental Science	3	0	0	3
7	UWP-110	Workshop Practice	0	0	3	1.5
Department Elective – 1						
1	UCS-103	Fundamentals of Computers & C Programming	3	1	2	4.5
2	UCS-104	Programming in C	3	1	2	4.5
		Total	15	4	15	24.5

Total Hours: 34

(Common Curriculum for B. Tech I year – All Branches)

Semester – II (Group-A)

Sr.No	Code	Course Title	L	T	P	Credit
1	UMA-102	Engineering Mathematics II	3	1	0	3.5
2	UCH-101	Engineering Chemistry	3	1	2	4.5
3	UEE-105	Principles of Electrical Engineering	3	1	2	4.5
4	UEG-101	Engineering Graphics Drawing	0	0	6	3
5	UEN-101	Environmental Science	3	0	0	3
6	UWP-110	Workshop Practice	0	0	3	1.5
7	XXX-XXX	Department Elective-2	-	-	-	-
Department Elective – 2						
1	UCS-105	Introduction to PHP using IDE	3	1	2	4.5
2	UCS-102	Advanced C Programming	3	1	2	4.5
		Total	15	4	15	24.5

Total Hours: 34

(Group-B)

Sr.No	Code	Course Title	L	T	P	Credit
1	UMA-102	Engineering Mathematics II	3	1	0	3.5
2	UPY-101	Engineering Physics	3	1	2	4.5
3	UHU-101	Communication & Professional skills in English	3	0	2	4
4	UEC-105	Principles of Electronics Engineering	3	1	2	4.5
5	UME-105	Principles of Mechanical Engineering	3	1	2	4.5
6	UPD-101	Personality Development Programme	2	0	0	2.0
7	XXX-XXX	Department Elective-2	-	-	-	-
Department Elective – 2						
1	UCS-105	Introduction to PHP using IDE	3	1	2	4.5
2	UCS-102	Advanced C Programming	3	1	2	4.5
		Total	20	5	10	27.5

Total Hours:35

SUMMER BREAK

Sr.No.	Code	Subject	L	T	P	Credit
1.	UTR- 201	Industrial Training	0	0	0	4

SEMESTER –III

Sr.No	Code	Course Title	L	T	P	Credit
1	UCS-222	Relational Database Management Systems	3	1	2	4.5
2	UEC-201	Digital Electronics	3	1	2	4.5
3	UCS-200	Data Structures	3	1	2	4.5
4	UCS-201	Computer Architecture and Organization	3	1	0	3.5
5	UCS-230	Python Programming	3	1	2	4.5
6	UTR-201	Industrial Training (Undertaken during Summer Vacations)	0	0	0	4.0
7	UPD-201	Personality Development Programme	2	0	0	2.0
8	XXX-XXX	Department Elective-3	-	-	-	-
Department Elective – 3						
1	UCS-205	Introduction to Virtualization Technology	3	1	0	3.5
2	UCS-209	Human Aspects of Information Technology	3	1	0	3.5
3	UCS-210	Ecommerce and ERP	3	1	0	3.5

SEMESTER –IV

Sr.No	Code	Course Title	L	T	P	Credit
1	UCS-250	Object Oriented Programming	3	1	2	4.5
2	UCS-255	Analysis and Design of Algorithms	3	1	0	3.5
3	UCS-281	Operating Systems	3	1	2	4.5
4	UCS-252	Software Engineering	3	1	0	3.5
5	UCS-253	Computer Networks	3	1	2	4.5
6	UPD-251	Personality Development Programme	2	0	0	2
7	XXX-XXX	Department Elective-4	-	-	-	-
8	XXX-XXX	Department Elective-5	-	-	-	-

Department Elective – 4						
1	UCS-224	Latest Trends in Computing - I	0	0	0	1
2	UGP-251	General Proficiency	0	0	0	1
Department Elective – 5						
1	UCS-258	Software Engineering Process, Tools & Methods	3	1	0	3.5
2	UCS-257	Requirements Engineering	3	1	0	3.5

SUMMER BREAK

Sr.No.	Code	Subject	L	T	P	Credit
1.	UTR- 301	Industrial Training	0	0	0	4

SEMESTER –V

Sr.No	Code	Course Title	L	T	P	Credit
1	UMA-310	Discrete Mathematics	3	1	0	3.5
2	UCS-301	Web Technologies	3	1	2	4.5
3	UCS-321	Artificial Intelligence	3	1	2	4.5
4	UCS-306	Programming in Java	3	1	2	4.5
5	UTR-301	Industrial Training (Undertaken during Summer Vacations)	0	0	0	4
6	UPD-301	Personality Development Programme	2	0	0	2
7	XXX-XXX	Department Elective-6	-	-	-	-
8	XXX-XXX	Department Elective-7	-	-	-	-
Department Elective – 6						
1	UCS-323	Software Project Management	3	1	0	3.5
2	UCS-324	Software Configuration Management	3	1	0	3.5
Department Elective – 7						
1	UCS-305	Computer Graphics	3	1	2	4.5
2	UCS-316	Information Storage & Management	3	1	0	3.5

SEMESTER-VI

Sr.No	Code	Course Title	L	T	P	Credit
1	UCS-350	Theory of Computation	3	1	0	3.5
2	UCS-351	Introduction to Internet of Things	3	1	0	3.5
3	UCS-356	Mobile application development	3	1	2	4.5
4	UCS-358	Machine Learning	3	1	2	4.5
5	UPD-351	Personality Development Programme	2	0	0	2
6	XXX-XXX	Department Elective-8	-	-	-	-
7	XXX-XXX	Department Elective-9	-	-	-	-
8	XXX-XXX	Department Elective-10	-	-	-	-
Department Elective – 8						
1	UCS-354	Latest Trends in Computing-II	0	0	0	1
2	UGP-351	General Proficiency	0	0	0	1

Department Elective – 9						
1	UCS-367	Software Architecture	3	1	0	3.5
2	UCS-368	Object Oriented Analysis and Design	3	1	0	3.5
Department Elective—10						
1	UCS-360	Agile software development	3	1	0	3.5
2	UCS-362	Linux Operating System	3	1	2	4.5

SUMMER BREAK

Sr. No.	Code	Subject	L	T	P	Credit
1.	UTR-401	Industrial Training	0	0	0	4

SEMESTER –VII

Sr.No	Code	Course Title	L	T	P	Credit
1	UCS-414	Cyber Security	3	1	2	4.5
2.	UCS-432	Software Testing	3	1	2	3.5
2	UCS-413	Minor Project	0	0	6	3
3	UTR-401	Industrial Training (Undertaken during Summer Vacations)	0	0	0	4
4	UPD-401	Personality Development Programme	2	0	0	2
5	XXX-XXX	Department Elective-11	-	-	-	-
6	XXX-XXX	Department Elective-12	-	-	-	-
7	XXX-XXX	Open Elective-1	3	1	0	3.5
Department Elective – 11						
1.	UCS-415	Software Quality And Reliability	3	1	0	3.5
2.	UCS-418	Software Security	3	1	0	3.5
Department Elective – 12						
1	UCS-421	Data science	3	1	0	3.5
2	UCS-419	Fundamentals of Blockchain	3	1	0	4.5
Open Elective – 1						
1	UMG-476	Human Ethics & values	3	1	0	3.5
2	UEC-462	Biomedical Instrumentation	3	1	0	3.5
3	UEC-463	Television Engineering	3	1	0	3.5
4	UEE-403	Energy Management	3	1	0	3.5
5	UEE-452	Non-Conventional Electrical Power Generation	3	1	0	3.5
6	UCE-312	Advance Construction Techniques and Project Management	3	1	0	3.5
7	UCE-365	Advanced Environmental Engineering	3	1	0	3.5
8	UME – 410	Basic Manufacturing Technology	3	1	0	3.5
9	UME – 411	Measurement Techniques	3	1	0	3.5

SEMESTER –VIII

Sr.No	Code	Course Title	L	T	P	Credit
1	XXX-XXX	Department Elective-13	-	-	-	-
2	XXX-XXX	Department Elective-14	-	-	-	-
3	XXX-XXX	Department Elective-15	-	-	-	-

4	UCS-472	Major Project	0	0	16	8
5	UPD-451	Personality Development Programme	2	0	0	2
6	XXX-XXX	Open Elective-II	3	1	0	3.5
7	XXX-XXX	Open Elective-III	3	1	0	3.5
Department Elective – 13						
1.	UCS-453	Software Construction and Maintenance	3	1	0	3.5
2.	UCS-454	Software Metrics	3	1	0	3.5
Department Elective – 14						
1	UCS-455	Business Intelligence	3	1	0	3.5
2	UCS-456	Distributed Systems	3	1	0	3.5
Department Elective – 15						
1	UGP-451	General Proficiency	0	0	0	1
2	UCS-480	Latest Trends in Computing-III	0	0	0	1
Open Elective – II						
1	UMG-450	Entrepreneurship Development & Enterprise Management	3	1	0	3.5
2	UEC-464	Satellite Communication	3	1	0	3.5
3	UEC-465	Digital Signal Processing & Applications	3	1	0	3.5
4	UEE-457	Transformer Engineering	3	1	0	3.5
5	UEE-411	Direct Energy Conversion	3	1	0	3.5
6	UCE-311	Advance Concrete Technology	3	1	0	3.5
7	UCE-409	Geographic Information Systems For Resources Management	3	1	0	3.5
8	UME –464	Renewable Energy Sources	3	1	0	3.5
9	UME – 466	Automation & Robotics	3	1	0	3.5
Open Elective – III						
1	UMG-475	Total Quality Management	3	1	0	3.5
2	UEC-466	Optical Communication	3	1	0	3.5
3	UEC-467	Principles of Digital Communication	3	1	0	3.5
4	UCE-476	Disaster Management	3	1	0	3.5
5	UCE-412	Building Project and Estimates	3	1	0	3.5
6	UEE-456	Hydro Power Station Design	3	1	0	3.5
7	UEE-408	Illumination Engineering	3	1	0	3.5
8	UME – 459	Engineering In Industry & Entrepreneurship	3	1	0	3.5
9	UME – 458	Emerging Automotive Technologies	3	1	0	3.5

NOTE: For final semester, students may be allowed for industry internship with prior permission of HOD/DEAN. Their Curriculum will be covered through online mode/internship performance. However, it is mandatory to appear in MSTs and End Term exams.

Programme: B.Tech

Computer Science & Engineering (Cloud Computing)

Scheme

W.e.f.Academic Session2026-2027



BUEST

SCHOOL OF ENGINEERING & EMERGING TECHNOLOGIES

(Common Curriculum for B. Tech I year – All Branches)
Semester - I (Group-A)

Sr.No	Code	Course Title	L	T	P	Credit
1	UMA-101	Engineering Mathematics I	3	1	0	3.5
2	UPY-101	Engineering Physics	3	1	2	4.5
3	XXX-XXX	Department Elective-1	-	-	-	-
4	UHU-101	Communication and Professional Skills in English	3	0	2	4.0
5	UEC-105	Principles of Electronics Engineering	3	1	2	4.5
6	UME-105	Principles of Mechanical Engineering	3	1	2	4.5
7	UPD-101	Personality Development Programme	2	0	0	2.0
Department Elective – 1						
1	UCS-103	Fundamentals of Computers & C Programming	3	1	2	4.5
2	UCS-104	Programming in C	3	1	2	4.5
		Total	20	5	10	27.5

Total Hours: 35

(Group-B)

Sr.No	Code	Course Title	L	T	P	Credit
1	UMA-101	Engineering Mathematics I	3	1	0	3.5
2	UCH-101	Engineering Chemistry	3	1	2	4.5
3	XXX-XXX	Department Elective-1	-	-	-	-
4	UEE-105	Principles of Electrical Engineering	3	1	2	4.5
5	UEG-101	Engineering Graphics Drawing	0	0	6	3
6	UEN-101	Environmental Science	3	0	0	3
7	UWP-110	Workshop Practice	0	0	3	1.5
Department Elective – 1						
1	UCS-103	Fundamentals of Computers & C Programming	3	1	2	4.5
2	UCS-104	Programming in C	3	1	2	4.5
		Total	15	4	15	24.5

Total Hours: 34

(Common Curriculum for B. Tech I year – All Branches)
Semester – II (Group-A)

Sr.No	Code	Course Title	L	T	P	Credit
1	UMA-102	Engineering Mathematics II	3	1	0	3.5
2	UCH-101	Engineering Chemistry	3	1	2	4.5
3	UEE-105	Principles of Electrical Engineering	3	1	2	4.5
4	UEG-101	Engineering Graphics Drawing	0	0	6	3
5	UEN-101	Environmental Science	3	0	0	3
6	UWP-110	Workshop Practice	0	0	3	1.5
7	XXX-XXX	Department Elective-2	-	-	-	-
Department Elective – 2						
1	UCS-105	Introduction to PHP using IDE	3	1	2	4.5
2	UCS-102	Advanced C Programming	3	1	2	4.5
		Total	15	4	15	24.5

Total Hours: 34

(Group-B)

Sr.No	Code	Course Title	L	T	P	Credit
1	UMA-102	Engineering Mathematics II	3	1	0	3.5
2	UPY-101	Engineering Physics	3	1	2	4.5
3	UHU-101	Communication & Professional skills in English	3	0	2	4
4	UEC-105	Principles of Electronics Engineering	3	1	2	4.5
5	UME-105	Principles of Mechanical Engineering	3	1	2	4.5
6	UPD-101	Personality Development Programme	2	0	0	2.0
7	XXX-XXX	Department Elective-2	-	-	-	-
Department Elective – 2						
1	UCS-105	Introduction to PHP using IDE	3	1	2	4.5
2	UCS-102	Advanced C Programming	3	1	2	4.5
		Total	20	5	10	27.5

Total Hours:35

SUMMER BREAK

Sr.No.	Code	Subject	L	T	P	Credit
1.	UTR- 201	Industrial Training	0	0	0	4

SEMESTER –III

Sr.No	Code	Course Title	L	T	P	Credit
1	UCS-222	Computer Organization and Architecture	3	1	0	3.5
2	UEC-201	Digital Electronics	3	1	2	4.5
3	UCS-200	Data Structures	3	1	2	4.5
4	UCS-206	Computer Networks	3	1	2	4.5
5	UCS-230	Python Programming	3	1	2	4.5
6	UTR-201	Industrial Training (Undertaken during Summer Vacations)	0	0	0	4.0
7	UPD-201	Personality Development Programme	2	0	0	2.0
8	XXX-XXX	Department Elective-3	-	-	-	-
Department Elective – 3						
1	UCS-203	Distributed System	3	1	0	3.5
2	UCS-204	Business Process Management	3	1	0	3.5

SEMESTER –IV

Sr.No	Code	Course Title	L	T	P	Credit
1	UCS-250	Object Oriented Programming	3	1	2	4.5
2	UCS-255	Analysis and Design of Algorithms	3	1	0	3.5
3	UCS-281	Operating Systems	3	1	2	4.5
4	UCS-252	Software Engineering	3	1	0	3.5
5	UCS-259	Relational Database Management Systems	3	1	2	4.5
6	UPD-251	Personality Development Programme	2	0	0	2
7	XXX-XXX	Department Elective-4	-	-	-	-

8	XXX-XXX	Department Elective-5	-	-	-	-
Department Elective – 4						
1	UCS-224	Latest Trends in Computing-I	0	0	0	1
2	UGP-251	General Proficiency	0	0	0	1
Department Elective – 5						
1	UCS-260	High Performance Computing	3	1	0	3.5
2	UCS-261	Big Data Analytics	3	1	2	4.5

SUMMER BREAK

Sr.No.	Code	Subject	L	T	P	Credit
1.	UTR- 301	Industrial Training	0	0	0	4

SEMESTER –V

Sr.No	Code	Course Title	L	T	P	Credit
1	UMA-310	Discrete Mathematics	3	1	0	3.5
2	UCS-301	Web Technologies	3	1	2	4.5
3	UCS-321	Artificial Intelligence	3	1	2	4.5
4	UCS-306	Advanced Programming	3	1	2	4.5
5	UTR-301	Industrial Training (Undertaken during Summer Vacations)	0	0	0	4
6	UPD-301	Personality Development Programme	2	0	0	2
7	XXX-XXX	Department Elective-6	-	-	-	-
8	XXX-XXX	Department Elective-7	-	-	-	-
Department Elective – 6						
1	UCS-315	Information Storage Management	3	1	0	3.5
2	UCS-342	Cloud Storage Infrastructures	3	1	0	3.5
Department Elective – 7						
1	UCS-345	Cloud Computing	3	1	0	3.5
2	UCS-339	Data Science	3	1	0	3.5
3	UCS-341	Modeling and Simulation	3	1	0	3.5
4	UCS-305	Computer Graphics	3	1	2	4.5

SEMESTER-VI

Sr.No	Code	Course Title	L	T	P	Credit
1	UCS-350	Theory of Computation	3	1	0	3.5
2	UCS-351	Internet of Things	3	1	0	3.5
3	UCS-356	Mobile Application Development	3	1	2	4.5
4	UCS-358	Machine Learning	3	1	2	4.5
5	UPD-351	Personality Development Programme	2	0	0	2
6	XXX-XXX	Department Elective-8	-	-	-	-
7	XXX-XXX	Department Elective-9	-	-	-	-

8	XXX-XXX	Department Elective-10	-	-	-	-
		Department Elective – 8				
1	UCS-354	Latest Trends in Computing-II	0	0	0	1
2	UGP-351	General Proficiency	0	0	0	1
		Department Elective--- 9				
1	UCS-383	Data Center Networking	3	1	0	3.5
2	UCS-384	Interfacing with virtualization	3	1	2	4.5
		Department Elective – 10				
1	UCS-385	Cloud Computing Architecture	3	1	0	3.5
2	UCS-379	Fundamentals of Blockchain	3	1	0	3.5

SUMMER BREAK

Sr. No.	Code	Subject	L	T	P	Credit
1.	UTR- 401	Industrial Training	0	0	0	4

SEMESTER –VII

Sr.No	Code	Course Title	L	T	P	Credit
1	UCS-414	Cyber Security	3	1	0	3.5
2.	UCS-432	Software Testing and Quality Assurance	3	1	0	3.5
2	UCS-413	Minor Project	0	0	6	3
3	UTR-401	Industrial Training (Undertaken during Summer Vacations)	0	0	0	4
4	UPD-401	Personality Development Programme	2	0	0	2
5	XXX-XXX	Department Elective-11	-	-	-	-
6	XXX-XXX	Department Elective-12	-	-	-	-
7	XXX-XXX	Open Elective-1	3	1	0	3.5
		Department Elective – 11				
1	UCS-422	Cloud Computing Tools and Techniques	3	1	0	3.5
2	UCS-430	Business Intelligence	3	1	0	3.5
		Department Elective – 12				
1	UCS-416	Wireless and AD-Hoc Network	3	1	0	3.5
2	UCS-443	Cloud Deployment Model				
3	UCS-444	Converged Networks	3	1	0	3.5
		Open Elective – 1				
1	UMG-476	Human Ethics & values	3	1	0	3.5
2	UEC-462	Biomedical Instrumentation	3	1	0	3.5
3	UEC-463	Television Engineering	3	1	0	3.5
4	UEE-403	Energy Management	3	1	0	3.5
5	UEE-452	Non-Conventional Electrical Power Generation	3	1	0	3.5
6	UCE-312	Advance Construction Techniques and Project Management	3	1	0	3.5
7	UCE-365	Advanced Environmental Engineering	3	1	0	3.5
8	UME-410	Basic Manufacturing Technology	3	1	0	3.5
9	UME-411	Measurement Techniques	3	1	0	3.5

SEMESTER –VIII

Sr.No	Code	Course Title	L	T	P	Credit
1	XXX-XXX	Department Elective-13	-	-	-	-
2	XXX-XXX	Department Elective-14	-	-	-	-
3	XXX-XXX	Department Elective-15	-	-	-	-
4	UCS-472	Major Project	0	0	16	8
5	UPD-451	Personality Development Programme	2	0	0	2
6	XXX-XXX	Open Elective-II	3	1	0	3.5
7	XXX-XXX	Open Elective-III	3	1	0	3.5
Department Elective – 13						
1.	UCS-459	Server Oriented Architecture	3	1	0	3.5
2.	UCS-463	Backup & Disaster Recovery	3	1	0	3.5
Department Elective – 14						
	UCS-482	Cloud Performance Tuning	3	1	0	3.5
2	UCS-478	Managing the cloud	3	1	0	3.5
3	UCS-479	Cloud Application Development	3	1	0	3.5
Department Elective – 15						
1	UGP-451	General Proficiency	0	0	0	1
2	UCS-480	Latest Trends in Computing-III	0	0	0	1
		Open Elective – II				
1	UMG-450	Entrepreneurship Development & Enterprise Management	3	1	0	3.5
2	UEC-464	Satellite Communication	3	1	0	3.5
3	UEC-465	Digital Signal Processing & Applications	3	1	0	3.5
4	UEE-457	Transformer Engineering	3	1	0	3.5
5	UEE-411	Direct Energy Conversion	3	1	0	3.5
6	UCE-311	Advance Concrete Technology	3	1	0	3.5
7	UCE-409	Geographic Information Systems For Resources Management	3	1	0	3.5
8	UME –464	Renewable Energy Sources	3	1	0	3.5
9	UME – 466	Automation & Robotics	3	1	0	3.5
		Open Elective – III				
1	UMG-475	Total Quality Management	3	1	0	3.5
2	UEC-466	Optical Communication	3	1	0	3.5
3	UEC-467	Principles of Digital Communication	3	1	0	3.5
4	UCE-476	Disaster Management	3	1	0	3.5
5	UCE-412	Building Project and Estimates	3	1	0	3.5
6	UEE-456	Hydro Power Station Design	3	1	0	3.5
7	UEE-408	Illumination Engineering	3	1	0	3.5
8	UME – 459	Engineering In Industry & Entrepreneurship	3	1	0	3.5
9	UME – 458	Emerging Automotive Technologies	3	1	0	3.5

NOTE: For final semester, students may be allowed for industry internship with prior permission of HOD/DEAN. Their Curriculum will be covered through online mode/internship performance. However, it is mandatory to appear in MSTs and End Term exams.