



ALAKH PRKASH GOYAL SHIMLA UNIVERSITY

Course Schema
B. Tech | Computer Science & Engineering
(Batch 2020-ONWARDS)

FIRST SEMESTER

Sr. No	Course Code	Course Name	L	T	P	Total Credit
1.	AGU MAT 101	Mathematics-I (Common for Group- I & II)	3	1	0	4
2.	AGU PHY 101/ AGU CHE 101	Engineering Physics (Group-II)/ Engineering Chemistry (Group-I)	3	1	2	5
3.	AGU EVS 101 /AGU ECS 101	Environment & Ecology (Group-II) / Introduction to Computers & C Programming (Group-I)	2/3	0/1	0/2	2/5
4.	AGU EE 101	Basic Electrical and Electronics Engineering (Group-I)	3	1	2	5
5.	ENG 104	Communication skills & personality Development-I(Common for Group-I &II)	3	1	2	5
6.	AGU ME 102	Basic Mechanical Engineering (Group-II)	3	1	0	4
7.	AGU ME 103 /AGU ME 101	Engineering Drawing (Group-II) / Workshop Practice (Group-I)	1	0	4	3
8.	<ul style="list-style-type: none"> • OEYOG 01 • OEFL01 • OENSS 01 	<ul style="list-style-type: none"> • Meditation & Yoga • French Language • National Service Scheme (Group –II) 	2	0	2	3
		Total Credit (Group-I)				27
		Total Credit (Group-II)				26

Group-I isB.Tech ME/EE

Group-II isB.Tech CE/CSE

SECOND SEMESTER

Sr. No	Course Code	Course Name	L	T	P	Total Credit
1.	AGU MAT 102	Mathematics-II (Common for Group- I & II)	3	1	0	4
2.	AGU PHY 101/ AGU CHE 101	Engineering Physics (Group-I)/ Engineering Chemistry (Group-II)	3	1	2	5
3.	AGU EVS 101 /AGU ECS 101	Environment & Ecology (Group-I) / Introduction to Computers & C Programming (Group-II)	2/3	0/1	0/2	2/5
4.	AGU EE 101	Basic Electrical and Electronics Engineering (Group-II)	3	1	2	5
5.	ENG 204	Communication Skills & personality Development-II(Common for Group-I & II)	3	1	2	5
6.	AGU ME 102	Basic Mechanical Engineering (Group-I)	3	1	0	4
7.	AGU ME 103 /AGU ME 101	Engineering Drawing (Group-I) / Workshop Practice (Group-II)	1	0	4	3
8.	<ul style="list-style-type: none"> • OEYOG 01 • OEFL01 • OENSS 01 	<ul style="list-style-type: none"> • Meditation & Yoga • French Language • National Service Scheme (Group –II) 	2	0	2	3
		Total Credit (Group-II)				27
		Total Credit (Group-I)				26

Group-I isB.Tech ME/EE

Group-II isB.Tech CE/CSE

THIRD SEMESTER

A. THEORY/ PRACTICAL						
S.No	CODE	SUBJECT NAME	PERIODS/WEEK			CREDITS
			L	T	P	
CORE						
1.	MAT241	Mathematics- III	3	1	0	4
2.	CSE211	Operating System	3	1	0	4
3.	CSE212	Computer Architecture & Digital Electronics	3	1	0	4
4.	CSE213	Internet Technology & Web Designing	3	1	0	4
5.	CSE214	Object Oriented Programming System	3	1	0	4
6.	CSE211L	Computer Architecture & Digital Electronics	0	0	2	1
7.	CSE213L	Internet Technology & Web Designing	0	0	2	1
8.	CSE214L	Object Oriented Programming System	0	0	2	1
DEPARTMENTAL ELECTIVE (3 CREDITS)						
1	CSE 215	System Analysis and Design	3	0	0	3
2	CSE 216	System Software	3	0	0	3
10.	CSE 217	Technical Writing	3	0	0	3
Total of Theory						23
Total of Practical						3
Total of Semester						26

FOURTH SEMESTER

A. THEORY/ PRACTICAL						
S.No	CODE	SUBJECT NAME	PERIODS/WEEK			CREDITS
			L	T	P	
CORE						
1.	CSE221	Computer Network	3	1	0	4
2.	CSE222	Data Structure	3	1	0	4
3.	CSE223	Database Management System	3	1	0	4
4.	CSE224	Discrete Mathematics	3	1	0	4
5.	CSE222L	Data Structure	0	0	2	1
6.	CSE223L	Database Management System	0	0	2	1
DEPARTMENTAL ELECTIVE (3 CREDITS)						
1.	EE305	Communication System	3	0	0	3
2.	CSE225	Software Engineering	3	0	0	3
3.	CSE226	Principal of Programming Language	3	0	0	3
OPEN ELECTIVE (3 CREDITS)						
Total of Theory						22
Total of Practical						2
Total of Semester						24

FIFTH SEMESTER

A. THEORY/ PRACTICAL						
S.No	CODE	SUBJECT NAME	PERIODS/WEEK			CREDITS
			L	T	P	
CORE						
1.	CSE311	JAVA	3	1	0	4
2.	CSE312	Theory of Computation	3	1	0	4
3.	CSE313	Computer Graphics	3	1	0	4
4.	MAT221	Numerical Analysis & Computational Programming	3	1	0	4
5.	CSE311L	JAVA	0	0	2	1
6.	CSE313L	Computer Graphics	0	0	2	1
7.	CSE314	Industrial Viva	0	0	4	2
DEPARTMENTAL ELECTIVE (3 CREDITS)						
1	EE502	Microprocessor and its Interface	3	0	0	3
2	CSE315	Information Storage Management	3	0	0	3
3	CSE 316	Software Testing	3	0	0	3
4	EE502L	Microprocessor and its Interface	0	0	2	1
Total of Theory						19
Total of Practical						5
Total of Semester						24

SIXTH SEMESTER

A. THEORY/ PRACTICAL						
S.No	CODE	SUBJECT NAME	PERIODS/WEEK			CREDITS
			L	T	P	
CORE						
1.	CSE321	Software Engineering	3	1	0	4
2.	CSE322	Design and Analysis of Algorithm	3	1	0	4
3.	CSE323	Compiler Design	3	1	0	4
4.	CSE324	Digital Image Processing	3	1	0	4
5.	CSE322L	Design and Analysis of Algorithm	0	0	2	1
6.	CSE324L	Digital Image Processing	0	0	2	1
7.	CSE325	Aptitude and Personality Development	2	0	0	2
DEPARTMENTAL ELECTIVE (3 CREDITS)						
1.	CSE326	Modeling and Simulation	3	0	0	3
2.	CSE327	Natural Language Processing	3	0	0	3
3.	MBA	Principal of Management	3	0	0	3
OPEN ELECTIVE (3 CREDITS)						
Total of Theory						24
Total of Practical						2
Total of Semester						26

SEVENTH SEMESTER

A. THEORY/ PRACTICAL						
S.No	CODE	SUBJECT NAME	PERIODS/WEEK			CREDITS
			L	T	P	
CORE						
1.	CSE411	Computer Oriented Optimization Methods	3	1	0	4
2.	CSE412	Linux and Shell Scripting	3	1	0	4
3.	CSE413	Artificial Intelligence	3	1	0	4
4.	CSE414	Aptitude & PDP	2	0	0	2
5.	CSE415	Minor Project	0	0	8	4
6.	CSE416	Industrial Training	0	0	4	2
6.	CSE412L	Linux and Shell Scripting	0	0	2	1
DEPARTMENTAL ELECTIVE (3 CREDITS)						
1	MBA207	Entrepreneurship Development	3	0	0	3
2	CSE 417	UML	3	0	0	3
3	CSE 418	Soft Computing	3	0	0	3
Total of Theory						17
Total of Practical						7
Total of Semester						24

DEPARTMENTAL ELECTIVE-I FOR SEVENTH SEMESTER

S.No.	CODE	SUBJECT NAME	PERIODS/WEEK			CREDITS
			L	T	P	
1.	CSE419	Distributed Systems	3	0	0	3
2.	CSE420	Parallel Computing	3	0	0	3
3.	CSE421	Information Storage Management	3	0	0	3
4.	CSE422	Cognitive Computing	3	0	0	3
5.	CSE423	Big Data	3	0	0	3
6.	CSE424	SPM and Software testing	3	0	0	3

EIGHTH SEMESTER

A. THEORY/ PRACTICAL						
S.No	CODE	SUBJECT NAME	PERIODS/WEEK			CREDITS
			L	T	P	
CORE						
1.	CSE421	Network Security and Cryptography	3	1	0	4
2.	CSE422	Data Warehouse and Mining	3	1	0	4
3.	CSE423	Major Project	0	0	16	8
4.	CSE424	Seminar	0	0	4	2
DEPARTMENTAL ELECTIVE (3 CREDITS)						
1.	CSE 425	Cloud Computing	3	0	0	3
2.	ME	Total Quality Management	3	0	0	3
3.	CSE 426	Distributed System	3	0	0	3
OPEN ELECTIVE (3 CREDITS)						
Total of Theory						14
Total of Practical						10
Total of Semester						24

DEPARTMENTAL ELECTIVE- II FOR EIGHTH SEMESTER

S.No.	CODE	SUBJECT NAME	PERIODS/WEEK			CREDITS
			L	T	P	
1.	CSE428	Modeling & Simulation	3	0	0	3
2.	CSE429	Wireless Networking	3	0	0	3
3.	CSE430	Distributed Operating System	3	0	0	3
4.	CSE431	Distributed Database Management System	3	0	0	3
5.	CSE432	Mobile Computing	3	0	0	3
6.	CSE433	Android programming	3	0	0	3
7.	CSE434	UML	3	0	0	3
8.	CSE435	Open Source software	3	0	0	3
9.	CSE436	Cloud Computing	3	0	0	3