

Semester: V Biochemical Engineering

S.No.	Course Code	Subject	Periods			Evaluation Scheme			Subject Total	Credit	
			L	T	P	Sessional Exam		ESE			
						CT	TA				Total
Theory											
1	HME-506	Mechanical Engineering	3	1	0	30	20	50	100	150	4
2	HCH-506	Heat Transfer Operations	3	1	0	30	20	50	100	150	4
3	HCH-507	Mass Transfer Operations	3	1	0	30	20	50	100	150	4
4	HBE-501	Concepts in Biochemical Engineering	3	1	0	30	20	50	100	150	4
5	HBE-502	Molecular Biology and Genetic Engineering	3	1	0	30	20	50	100	150	4
Practical/Training/Project											
6	HBE-551	Biochemical Engineering Lab	0	0	6	30	20	50	50	100	
7	HBE-552	Molecular Biology Lab	0	0	3	15	10	25	25	50	
8	HCH-553	Chemical Engineering Unit Operation Lab	0	0	3	15	10	25	25	50	
9	GP-501	G.P.						50		50	

Semester: VI Biochemical Engineering

S.No.	Course Code	Subject	Periods			Evaluation Scheme			Subject Total	Credit	
			L	T	P	Sessional Exam		ESE			
						CT	TA				Total
Theory											
1	HME-605	Machine Design	3	1	0	30	20	50	100	150	4
2	HCH-605	Chemical Reaction Engineering	3	1	0	30	20	50	100	150	4
3	HBE-601	Fermentation Technology	3	1	0	30	20	50	100	150	4
4	HBE-602	Waste Treatment	3	1	0	30	20	50	100	150	4
5	HBE-603	Bioprocess Engineering	3	1	0	30	20	50	100	150	4
Practical/Training/Project											
6	HBE-651	Fermentation Lab	0	0	6	30	20	50	50	100	
7	HBE-652	Waste Treatment Lab	0	0	3	15	10	25	25	50	
8	HBE-653	Seminar	0	0	3			50		50	
9	GP-601	G.P.						50		50	

Semester: V Civil Engineering

S. No.	Course Code	Subject	Periods			Evaluation Scheme			Subject Total	Credit
						Sessional Exam				
			L	T	P	CT	TA	Total		
Theory										
1.	HCE 501	Hydrology & Irrigation Engineering	3	1	0	30	20	50	100	150
2.	HCE 502	Structural Analysis II	3	1	0	30	20	50	100	150
3.	HCE 503	Design of Concrete Structure I	3	1	0	30	20	50	100	150
4.	HCE 504	Transportation Engineering I	3	1	0	30	20	50	100	150
5.	HCE 505	Geotech. Engineering I	3	1	0	30	20	50	100	150
Practical/ Training/ Project										
1.	HCE 551	Structural Analysis Lab	0	0	3	-	-	25	25	50
2.	HCE 552	Concrete Lab	0	0	3	-	-	25	25	50
3.	HCE 553	Transportation Engineering Lab	0	0	3	-	-	25	25	50
4.	HCE 554	Geotech. Engineering Lab	0	0	3	-	-	25	25	50
5.	GP501	G.P.	-	-	-	-	-	50	-	50

Semester: VI Civil Engineering

S. No.	Course Code	Subject	Periods			Evaluation Scheme			Subject Total	Credit
						Sessional Exam				
			L	T	P	CT	TA	Total		
Theory										
1.	HCE 601	Environmental Engineering I	3	1	0	30	20	50	100	150
2.	HCE 602	Design of Concrete Structure II	3	1	0	30	20	50	100	150
3.	HCE 603	Geotech. Engineering II	3	1	0	30	20	50	100	150
4.	HCE 604	Transportation Engineering II	3	1	0	30	20	50	100	150
5.	HCE 605	Design of Steel Structure	3	1	0	30	20	50	100	150
Practical/ Training/ Project										
1.	HCE 651	Environmental Engineering I Lab	0	0	3	-	-	25	25	50
2.	HCE 652	Structural Detailing Lab	0	0	3	-	-	25	25	50
3.	HCE 653	CAD Lab	0	0	3	-	-	25	25	50
4.	HCE 654	Colloquium	0	0	3	-	-	50	-	50
5.	GP601	G.P.	-	-	-	-	-	50	-	50
									1000	

SEMESTER – V Computer Science & Engineering										
S.No.	Course Code	SUBJECT	PERIODS			Evaluation Scheme				
						SESSIONAL EXAM.			ESE	SUBJECT TOTAL
L	T	P	CT	TA	Total					
1	HHU501	Engineering Economics and Management	3	1	0	30	20	50	100	150
2	HCS501	Computer Graphics	3	1	0	30	20	50	100	150
3	HCS502	Operating Systems	3	1	0	30	20	50	100	150
4	HCS503	Design & Analysis of Algorithm	3	1	0	30	20	50	100	150
5	HCS504	Theory of Automata & Formal Languages	3	1	0	30	20	50	100	150
PRACTICALS										
6	HCS551	Computer Graphics Lab	0	0	2	10	10	20	30	50
7	HCS552	Operating Systems Lab	0	0	3	10	15	25	50	75
8	HCS553	Design & Analysis of Algorithm Lab	0	0	3	10	15	25	50	75
9	GP501	General Proficiency						50		50
		Total	15	5	8	-	-	-	-	1000

SEMESTER – VI Computer Science & Engineering										
S.No.	Course Code	SUBJECT	PERIODS			Evaluation Scheme				
						SESSIONAL EXAM.			ESE	SUBJECT TOTAL
L	T	P	CT	TA	Total					
1	HCS601	Operational Research	3	1	0	30	20	50	100	150
2	HHU601	Organizational Behaviour	3	1	0	30	20	50	100	150
3	HCS603	Compiler Design	3	1	0	30	20	50	100	150
4	HCS604	Computer Networks	3	1	0	30	20	50	100	150
5	HCS605	Web Technology	3	1	0	30	20	50	100	150
PRACTICALS										
6	HCS653	Compiler Design Lab	0	0	2	10	10	20	30	50
7	HCS654	Computer Networks Lab	0	0	3	10	15	25	50	75
8	HCS655	Web Technology Lab	0	0	3	10	15	25	50	75
9	GP601	General Proficiency						50		50
		Total	15	5	8	-	-	-	-	1000

SEMESTER – V Information Technology										
S.No.	Course Code	SUBJECT	PERIODS			Evaluation Scheme				
						SESSIONAL EXAM.			ESE	SUBJECT TOTAL
L	T	P	CT	TA	Total					
1	HHU501	Engineering Economics and Management	3	1	0	30	20	50	100	150
2	HIT501	E-Commerce	3	1	0	30	20	50	100	150
3	HCS502	Operating Systems	3	1	0	30	20	50	100	150
4	HIT502	Web Technology	3	1	0	30	20	50	100	150
5	HCS503	Design & Analysis of Algorithm	3	1	0	30	20	50	100	150
PRACTICALS										
6	HCS552	Operating Systems Lab	0	0	2	10	10	20	30	50
7	HIT552	Web Technology Lab	0	0	3	10	15	25	50	75
8	HCS553	Design & Analysis of Algorithm Lab	0	0	3	10	15	25	50	75
9	GP501	General Proficiency						50		50
		Total	15	5	8	-	-	-	-	1000

SEMESTER – VI Information Technology										
S.No.	Course Code	SUBJECT	PERIODS			Evaluation Scheme				
						SESSIONAL EXAM.			ESE	SUBJECT TOTAL
L	T	P	CT	TA	Total					
1	HCS601	Operational Research	3	1	0	30	20	50	100	150
2	HCS602	Organizational Behaviour	3	1	0	30	20	50	100	150
3	HIT601	Information Systems	3	1	0	30	20	50	100	150
4	HCS604	Computer Networks	3	1	0	30	20	50	100	150
5	HIT602	Software Project Management	3	1	0	30	20	50	100	150
PRACTICALS										
6	HIT651	Information Systems Lab	0	0	2	10	10	20	30	50
7	HCS654	Computer Networks Lab	0	0	3	10	15	25	50	75
8	HIT652	Software Project Management Lab	0	0	3	10	15	25	50	75
9	GP601	General Proficiency						50		50
		Total	15	5	8	-	-	-	-	1000

SEMESTER – V Electrical Engineering

Sl.No.	COURSE NO	SUBJECT	PERIOD			EVALUATION SCHEME				SUBJECT TOTAL	CREDIT
						SESSIONAL EVALUATION			EXAM ESE		
			L	T	P	CT	TA	TOTAL			
THEORY SUBJECTS											
1	HHU-501	Industrial Economics & Principle of Management	3	0	0	30	20	50	100	150	3
2	HET504	Communication Engineering	3	1	0	30	20	50	100	150	4
3	HEE-501	Electromechanical Energy Conversion-II	3	1	0	30	20	50	100	150	4
4	HEE-502	Control System	3	1	0	30	20	50	100	150	4
5	HEE-503	Elements of Power System	3	1	0	30	20	50	100	150	4
PRACTICALS											
8	HEE-551	Electromechanical Energy Conversion-II Lab	0	0	3	10	10	40	60	100	1
9	HEE-552	Control System Lab	0	0	2	10	10	20	30	50	1
10	HET554	Communication Engineering Lab	0	0	2	10	10	20	30	50	1
11	GP-501	General Proficiency	-	-	-	-	-	50	1	50	1
		Total								1000	26

Semester-V

Electronics Engineering

S. No.	Course No.	Subject	Periods			Evaluation Scheme				Subject Total
						sessional			Examination	
		Theory	L	T	P	CT	TA	Total	ESE	
1.	HHU 501	Engineering Economics & Management	3	1	0	30	20	50	100	150
2.	HEE 504	Control System	3	1	0	30	20	50	100	150
3.	HET 503	Microprocessors	3	1	0	30	20	50	100	150
4.	HET502	Antenna and Microwaves	3	1	0	30	20	50	100	150
5.	HET501	Analog Communication	3	1	0	30	20	50	100	150
		Practical/Training/Project								
6.	HET551	Analog Communication Lab	0	0	2X2	30	20	50	50	100
7.	HET553	Microprocessor Lab	0	0	2X2	30	20	50	50	100
8.	GP 501	General Proficiency	-	-	-	-	-	50	-	50
		Total	15	5	8	-	-	-	-	1000

Semester-VI

Electronics Engineering

S. No.	Course No.	Subject	Periods			Evaluation Scheme				Subject Total
						Sessional			Examination	
		Theory	L	T	P	CT	TA	Total	ESE	
1.	HEE 605	Fundamentals of Power Electronics	3	1	0	30	20	50	100	150
2.	HET604	Analog Integrated Circuits	3	1	0	30	20	50	100	150
3.	HET601	Digital Communication	3	1	0	30	20	50	100	150
4.	HET602	Advanced Instrumentation	3	1	0	30	20	50	100	150
5.	HET603	VLSI Design	3	1	0	30	20	50	100	150
		Practical/Training/Project								
6.	HEE655	Power Electronics and Control Lab	0	0	2	10	10	20	30	50
7.	HET652	Analog Integrated Circuits Lab	0	0	2X2	30	20	50	50	100
8.	HET653	VLSI Design Lab	0	0	2	10	10	20	30	50
9.	GP 601	General Proficiency	-	-	-	-	-	50	-	50
		Total	15	5	10	-	-	-	-	1000

Note- 4 to 6 Weeks Industrial Interaction after VI semester exam to be evaluated in VII semester

Semester V

Food Technology

S.No.	Course Code	Subject	Periods			Evaluation Scheme			Subject Total	Credit	
			L	T	P	Sessional Exam		ESE			
						CT	TA				Total
Theory											
1	HME-506	Mechanical Engineering	3	1	0	30	20	50	100	150	4
2	HCH-506	Heat Transfer Operations	3	1	0	30	20	50	100	150	4
3	HCH-507	Mass Transfer Operations	3	1	0	30	20	50	100	150	4
4	HFT-501	Food Chemistry	3	1	0	30	20	50	100	150	4
5	HFT-502	Food Biochemistry	3	1	0	30	20	50	100	150	4
Practical/Training/Project											
6	HFT-551	Food Chemistry Lab	0	0	6	30	20	50	50	100	
7	HFT-552	Food Biochemistry Lab	0	0	3	15	10	25	25	50	
8	HCH-553	Chemical Engineering Unit Operation Lab	0	0	3	15	10	25	25	50	
9	GP-501	G.P.						50		50	

Semester VI

Food Technology

S.No.	Course Code	Subject	Periods			Evaluation Scheme			Subject Total	Credit	
			L	T	P	Sessional Exam		ESE			
						CT	TA				Total
Theory											
1	HME-605	Machine Design	3	1	0	30	20	50	100	150	4
2	HCH-605	Chemical Reaction Engineering	3	1	0	30	20	50	100	150	4
3	HFT-601	Principles of Food Preservation	3	1	0	30	20	50	100	150	4
4	HFT-602	Traditional & Fermented Foods	3	1	0	30	20	50	100	150	4
5	HFT-603	Technology of Cereals,Pulses & Oilseeds	3	1	0	30	20	50	100	150	4
Practical/Training/Project											
6	HFT-651	Food Preservation & Processing Lab	0	0	6	30	20	50	50	100	
7	HFT-652	Traditional & Fermented Food Lab	0	0	3	15	10	25	25	50	
8	HFT-653	Seminar	0	0	3			50		50	
9	GP-601	G.P.						50		50	

Semester V Leather Technology

S. No.	Course Code	Subject	Periods			Evaluation Scheme			Subject Total	Credit
						Sessional Exam		ESE		
			L	T	P	CT	TA			

Theory

1	HME-506	Mechanical Engineering	3	1	0	30	20	50	100	150	4
2	HCH-506	Heat Transfer Operations	3	1	0	30	20	50	100	150	4
3	HCH-507	Mass Transfer Operation	3	1	0	30	20	50	100	150	4
4	HLT-501	Inorganic Tannages	3	1	0	30	20	50	100	150	4
5	HLT-502	Organic Tannages	3	1	0	30	20	50	100	150	4
Practical / Training / Project											
7	HLT-551	Analysis of Materials of leather manufacture lab	0	0	3	15	10	25	25	50	
8	HLT-552	Leather Processing Lab - I	0	0	6	30	20	50	50	100	
9	HCH-553	Chemical Engineering Unit Operations Lab	0	0	3	15	10	25	25	50	
	GP 501							50		50	

Semester VI Leather Technology

S. No.	Course Code	Subject	Periods			Evaluation Scheme			Subject Total	Credit
						Sessional Exam		ESE		
			L	T	P	CT	TA			

Theory

1	HME-605	Machine Design	3	1	0	30	20	50	100	150	4
2	HCH-605	Chemical Reaction Engineering	3	1	0	30	20	50	100	150	4
3	HLT-601	Analysis of Materials of Leather Manufacture	3	1	0	30	20	50	100	150	4
4	HLT-602	Leather Biotechnology	3	1	0	30	20	50	100	150	4
5	HLT-603	Post Tanning & Finishing Operations	3	1	0	30	20	50	100	150	4
Practical / Training / Project											
7	HLT-651	Leather Analysis & Quality Control Lab	0	0	6	30	20	50	50	100	
8	HLT-652	Leather Processing Lab - II	0	0	3	15	10	25	25	50	
9	HLT-653	Seminar	0	0	3			50		50	
	GP 601							50		50	

SEMESTER-V Mechanical Engineering

S. No.	Course Code	SUBJECT	PERIODS			Evaluation Scheme				Subject Total	Credits
						SESSIONAL EXAM.			ESE		
			L	T	P	CT	TA	Total			
THEORY											
1.	HME 501	Manufacturing Science and Engineering-II	3	1	0	30	20	50	100	150	4
2.	HME 502	Fluid Machinery	3	1	0	30	20	50	100	150	4
3.	HME 503	Dynamics of Machines	3	1	0	30	20	50	100	150	4
4.	HME 504	Elements of Mechanical Design	3	1	0	30	20	50	100	150	4
5.	HME 505	Measurement Systems	3	1	0	30	20	50	100	150	4
PRACTICAL/TRAINING/PROJECT											
6	HME 551	Manufacturing Science and Engineering- II Lab	0	0	2	10	10	20	30	50	1
7	HME 552	Fluid Machinery Lab	0	0	2	10	10	20	30	50	1
8	HME 553	Theory of Machines Lab	0	0	2	10	10	20	30	50	1
9	HME 554	Machine design-I Lab	0	0	2	10	10	20	30	50	1
10	GP 501	General Proficiency	-	-	-	-	-	50	-	50	1
		Total	15	5	8	-	-	-	-	1000	25

SEMESTER-VI Mechanical Engineering

S. No.	Course Code	SUBJECT	PERIODS			Evaluation Scheme				Subject Total	Credits
						SESSIONAL EXAM.			ESE		
			L	T	P	CT	TA	Total			
THEORY											
1.	HME 601	I C Engines	3	1	0	30	20	50	100	150	4
2.	HME 602	Design of Mechanical Components	3	1	0	30	20	50	100	150	4
3.	HME 603	Computer Aided Design	3	1	0	30	20	50	100	100	4
4.	HME 604	Management of Production Systems	3	1	0	30	20	50	100	150	4
5.	HME611-617	ELECTIVE I	3	1	0	30	20	50	100	150	4
PRACTICAL/TRAINING/PROJECT											
6	HME 651	I C Engine Lab	0	0	2	10	10	20	30	50	1
7	HME 652	Machine Design-II Lab	0	0	2	10	10	20	30	50	1
8	HME 653	Measurement and Metrology Lab	0	0	2	10	10	20	30	50	1

9	HME 654	Seminar	0	0	3	-	-	50	-	50	1
10	GP-601	General Proficiency	-	-	-	-	-	50	-	50	1
		Total	15	5	9	-	-	-	-	1000	25
Industrial Training of 4 – 6 weeks after VI semester will be evaluated in VII semester											

ELECTIVE I

- HME 611: Product Design and Development
- HME 612: Engineering Materials
- HME 613: Mechatronics
- HME 614: Advanced Fluid Mechanics
- HME 615: Introduction to Nuclear Engineering
- HME 616: Production Planning and Control
- HME 617: Industrial Automation

Semester V Oil Technology

S.No.	Course Code	Subject	Periods			Evaluation Scheme			Subject Total	Credit	
			L	T	P	Sessional Exam		ESE			
						CT	TA				Total
Theory											
1	HME-506	Mechanical Engineering	3	1	0	30	20	50	100	150	4
2	HCH-506	Heat Transfer Operations	3	1	0	30	20	50	100	150	4
3	HCH-507	Mass Transfer Operations	3	1	0	30	20	50	100	150	4
4	HOT-501	Technology of Soaps and fat Splitting	3	1	0	30	20	50	100	150	4
5	HOT-502	Expression and Extraction Techniques Of Oil Bearing Materials	3	1	0	30	20	50	100	150	4
Practical/Training/Project											
6	HOT-551	Analysis of Soap Products	0	0	6	30	20	50	50	100	
7	HOT-552	Oil and Allied Products Formulation Lab	0	0	3	15	10	25	25	50	
8	HCH-553	Chemical Engineering Unit Operation Lab	0	0	3	15	10	25	25	50	
9	GP-501	G.P.						50		50	

Semester VI Oil Technology

S.No.	Course Code	Subject	Periods			Evaluation Scheme			Subject Total	Credit	
			L	T	P	Sessional Exam		ESE			
						CT	TA				Total
Theory											
1	HME-605	Machine Design	3	1	0	30	20	50	100	150	4
2	HCH-605	Chemical Reaction Engineering	3	1	0	30	20	50	100	150	4
3	HOT-601	Commerce and Process Economics; Utilities And By Products of Oil Industry	3	1	0	30	20	50	100	150	4
4	HOT-602	Refining of Oils	3	1	0	30	20	50	100	150	4
5	HOT-603	Essential Oils and Cosmetics	3	1	0	30	20	50	100	150	4
Practical/Training/Project											
6	HOT-651	Detergent Product Preparation And Analysis Lab	0	0	6	30	20	50	50	100	
7	HOT-652	Oil Processing Lab- 1	0	0	3	15	10	25	25	50	
8	HOT-653	Seminar	0	0	3			50		50	
9	GP-601	G.P.						50		50	

Semester-V Paint Technology

S.No.	Course Code	Subject	Periods			Evaluation Scheme				Subject Total	Credit
						Sessional Exam			ESE		
			L	T	P	CT	TA	Total			
Theory											
1	HME-506	Mechanical Engineering	3	1	0	30	20	50	100	150	4
2	HCH-506	Heat Transfer Operations	3	1	0	30	20	50	100	150	4
3	HCH-507	Mass Transfer Operations	3	1	0	30	20	50	100	150	4
4	HPT-501	Inorganic pigments & Extenders	3	1	0	30	20	50	100	150	4
5	HPT-502	Organic Pigments & Dyestuffs	3	1	0	30	20	50	100	150	4
Practical/Training/Project											
6	HPT-551	Pigments & Extenders Lab	0	0	6	30	20	50	50	100	2
7	HPT-552	Emulsion Lab	0	0	3	15	10	25	25	50	1
8	HCH-553	Chemical Engineering Unit Operation Lab	0	0	3	15	10	25	25	50	1
9	GP-501	G.P.						50		50	--

Semester-VI Paint Technology

S.No.	Course Code	Subject	Periods			Evaluation Scheme				Subject Total	Credit
						Sessional Exam			ESE		
			L	T	P	CT	TA	Total			
Theory											
1	HME-605	Machine Design	3	1	0	30	20	50	100	150	4
2	HCH-605	Chemical reaction Engg.	3	1	0	30	20	50	100	150	4
3	HPT-601	Synthetic Resins & Polymers	3	1	0	30	20	50	100	150	4
4	HPT-602	Principles of formulation and manufacture of coatings	3	1	0	30	20	50	100	150	4
5	HPT-603	Coating properties and evaluation	3	1	0	30	20	50	100	150	4
Practical/Training/Project											
6	HPT-651	Coating testing Lab	0	0	6	30	20	50	50	100	2
7	HPT-652	Resins Lab	0	0	3	15	10	25	25	50	1
8	HPT-653	Seminar	0	0	3			50		50	1
9	GP-601	G.P.						50		50	--

Semester V Plastic Technology

S.No.	Course Code	Subject	Periods			Evaluation Scheme				Subject Total	Credit
						Sessional Exam			ESE		
			L	T	P	CT	TA	Total			
Theory											
1	HME-506	Mechanical Engineering	3	1	0	30	20	50	100	150	4
2	HCH-506	Heat Transfer Operations	3	1	0	30	20	50	100	150	4
3	HCH-507	Mass Transfer Operations	3	1	0	30	20	50	100	150	4
4	HPL - 501	Rheology & Testing of Polymers	3	1	0	30	20	50	100	150	4
5	HPL - 502	Polymer Processing I	3	1	0	30	20	50	100	150	4
Practical/Training/Project											
6	HPL - 551	Polymer Testing Lab - I	0	0	3	15	10	25	25	50	
7	HPL-552	Synthesis and Modification of Polymers and Resins Lab	0	0	6	30	20	50	50	100	
8	HCH-553	Chemical Engg Unit Operation Lab	0	0	6	30	20	50	50	100	
9	GP-501	General Proficiency						50		50	

Semester VI Plastic Technology

S.No.	Course Code	Subject	Periods			Evaluation Scheme				Subject Total	Credit
						Sessional Exam			ESE		
			L	T	P	CT	TA	Total			
Theory											
1	HME-605	Machine Design	3	1	0	30	20	50	100	150	4
2	HCH-605	Chemical Reaction Engineering	3	1	0	30	20	50	100	150	4
3	HPL-601	Structure & Property of Polymers	3	1	0	30	20	50	100	150	4
4	HPL-602	Polymer Processing - II	3	1	0	30	20	50	100	150	4
5	HPL-603	Polymerization Engg - II	3	1	0	30	20	50	100	150	4
Practical/Training/Project											
6	HPL-651	Polymer Processing Lab	0	0	6	30	20	50	50	100	
7	HPL-652	Polymer Testing - II	0	0	3	15	10	25	25	50	
8	HPL-653	Seminar	0	0	3			50		50	
9	GP-601	General Proficiency						50		50	