

INDIRA GANDHI INSTITUTE OF TECHNOLOGY, SARANG
Course Structure of 3rd Year B.Tech CHEMICAL ENGINEERING
(Admission Batch: 2018-19 Onwards)

Fifth Semester				Sixth Semester			
Theory				Theory			
Course Code	Course Name	L-T-P (Periods/Week)	Credits	Course Code	Course Name	L-T-P (Periods/Week)	Credits
	<i>Programme Core Subject</i>			HSHM3306M/ HSHM3306	Enhancing Soft Skills and Personality	2-0-0	2
PCCH4306	Mass Transfer- II	3-0-0	3	PCCH4309	Chemical Reaction Engineering -II	3-0-0	3
PCCH4307	Chemical Reaction Engineering-I	3-0-0	3	PCCH4310	Process Dynamics and Control	3-0-0	3
PCCH4308	Chemical Process Technology	3-0-0	3	(Any One)	<i>Programme Elective II</i>	3-0-0	3
(Any One)	<i>Programme Elective I</i>	3-0-0	3	PECH5303/	Chemical Engineering Mathematics and MATLAB/		
PECH5301/	Fuel and Energy Technology /			PECH5304	Waste to Energy Conversion		
PECH5302	Bio-Chemical Engineering			(Any One)	<i>Open Elective III</i>	3-0-0	3
(Any One)	<i>Open Elective II</i>	3-0-0	3		Refer List of Open Electives		
	Refer List of Open Electives			(Any One)	<i>Open Elective III</i>	3-0-0	3
	Refer List of Open Electives				Refer List of Open Electives		
	<i>Mandatory Course V</i>	2-0-0	0		<i>Mandatory Course VI</i>	2-0-0	0
MCGN9305/ MCHM9306	Environmental Science/ Universal Human Values			MCHM9306 /MCGN9305	Universal Human Values/ Environmental Science		
	Total (Theory)	17	15		Total (Theory)	16	14
	Honours/ Minor	3-1-0	4		Honours/ Minor	3-1-0	4
HNCH0303	Advanced Mass Transfer			HNCH0304	Advanced Process Control		
MNCH0303	Fuel Cell Technology			MNCH0304	Membrane Science and Engineering		
	Practical/ Sessional				Practical/ Sessional		
PCCH7306	Fuel Technology Laboratory	0-0-3	2	PCCH7309	CAD Laboratory	0-0-3	2
PCCH7307	Chemical Reaction Engineering Laboratory	0-0-3	2	PCCH7310	Process Control Laboratory	0-0-3	2
PCCH7308	Chemical Technology Laboratory	0-0-3	2	HSHM3305	Business Communication & Interview Skills	0-0-3	1
	Total (Practical/ Sessional)	9	6	PJCH8301	Skill Project	0-0-3	2
	TOTAL	26	21		Total (Practical/ Sessional)	12	7
					TOTAL	28	21
TOTAL SEMESTER CREDITS: 21				TOTAL SEMESTER CREDITS: 21			
TOTAL CUMULATIVE CREDITS: 104				TOTAL CUMULATIVE CREDITS: 125			

INDIRA GANDHI INSTITUTE OF TECHNOLOGY, SARANG
Course Structure for 3rd Year B.Tech COMPUTER SCIENCE & ENGINEERING
(Admission Batch: 2018-19 Onwards)

Fifth Semester				Sixth Semester			
Theory				Theory			
Course Code	Course Name	L-T-P (Periods/Week)	Credits	Course Code	Course Name	L-T-P (Periods/Week)	Credits
				HSHM3306M/ HSHM3306	Enhancing Soft Skills and Personality	2-0-0	2
	<i>Programme Core Subject</i>				<i>Programme Core Subject</i>		
PCCS4306	Design and Analysis of Algorithm	3-0-0	3	PCCS4309	Operating System	3-0-0	3
PCCS4307	Computer Networks	3-0-0	3	PCCS4310	Compiler Design	3-0-0	3
PCCS4308	Microprocessor and Micro Controller	3-0-0	3	(Any One)	<i>Programme Elective II</i>	3-0-0	3
				PECS5304/ PECS5305/ PECS5306/	Machine Learning Techniques/ Soft Computing/ Cryptography and Network Security		
(Any One)	<i>Programme Elective I</i>	3-0-0	3				
PECS5301/	Computer System Architecture/						
PECS5302/ PECS5303/	Embedded System Design/ Graph Theory						
(Any One)	<i>Open Elective II</i>	3-0-0	3	(Any One)	<i>Open Elective III</i>	3-0-0	3
	Refer List of Open Electives				Refer List of Open Electives		
	<i>Mandatory Course V</i>	2-0-0	0		<i>Mandatory Course VI</i>	2-0-0	0
MCGN9305/ MCHM9306	Environmental Science/ Universal Human Values			MCHM9306/ MCGN9305	Universal Human Values/ Environmental Science		
	Total (Theory)	17	15		Total (Theory)	16	14
	Honours/ Minor	3-1-0	4		Honours/ Minor	3-1-0	4
HNCS0303 MNCS0303	Software Architecture Database Management System			HNCS0304 MNCS0304	Software Quality Management Computer Networks		
	Practical/ Sessional				Practical/ Sessional		
PCCS7305	Design & Analysis of Algorithm Lab	0-0-3	2	PCCS7308	Operating System Lab	0-0-3	2
PCCS7306	Computer Networks Lab	0-0-3	2	PCCS7309	Compiler Design Lab	0-0-3	2
PCCS7307	Microprocessor and Micro Controller Lab	0-0-3	2	HSHM3305	Business Communication & Interview Skills	0-0-3	1
				PJCS8301	Skill Project	0-0-3	2
	Total (Practical/ Sessional)	9	6		Total (Practical/ Sessional)	12	7
	TOTAL	26	21		TOTAL	28	21
TOTAL SEMESTER CREDITS: 21				TOTAL SEMESTER CREDITS: 21			
TOTAL CUMULATIVE CREDITS: 104				TOTAL CUMULATIVE CREDITS: 125			

INDIRA GANDHI INSTITUTE OF TECHNOLOGY, SARANG
Course Structure for 3rdYear B.Tech ELECTRICAL ENGINEERING
(Admission Batch: 2018-19 Onwards)

Fifth Semester				Sixth Semester			
Theory				Theory			
Course Code	Course Name	L-T-P (Periods/Week)	Credits	Course Code	Course Name	L-T-P (Periods/Week)	Credits
	<i>Programme Core Subject</i>			HSHM3306M/	Enhancing Soft Skills and Personality	2-0-0	2
PCEE4306	Power Electronics	3-0-0	3	HSHM3306	<i>Programme Core Subject</i>		
PCEE4307	Microprocessor & Microcontroller	3-0-0	3	PCEE4309	Electrical Drives	3-0-0	3
PCEE4308	Electrical Power Transmission and Distribution	3-0-0	3	PCEE4310	Power System Operation & Control	3-0-0	3
(Any One)	<i>Programme Elective I</i>	3-0-0	3	(Any One)	<i>Programme Elective II</i>	3-0-0	3
PEEE5301/	Electromagnetic Field Theory			PEEE5304/	Power Quality/ FACTS		
PEEE5302/	Special Electrical Machines			PEEE5305			
PEEE5303	Digital Signal Processing						
(Any One)	Open Elective II Refer List of Open Electives	3-0-0	3	(Any One)	Open Elective III Refer List of Open Electives	3-0-0	3
	<i>Mandatory Course V</i>	2-0-0	0		<i>Mandatory Course VI</i>	2-0-0	0
MCGN9305/	Environmental Science/			MCHM9306/	Universal Human Values/		
MCHM9306	Universal Human Values			MCGN9305	Environmental Science		
	Total (Theory)	17	15		Total (Theory)	16	14
	Honours/ Minor	3-1-0	4		Honours/ Minor	3-1-0	4
HNEE0303	Electrical Machine Design			HNEE0304	Control System Engineering-II		
MNEE0303	Electrical Power Transmission and Distribution			MNEE0304	Sensors and Transducers		
	Practical/ Sessional				Practical/ Sessional		
PCEE7306	Power Electronics Laboratory	0-0-3	2	PCEE7309	Electrical Drives Laboratory	0-0-3	2
PCEE7307	Microprocessor & Microcontroller Laboratory	0-0-3	2	PCEE7310	Power System Laboratory-II	0-0-3	2
PCEE7308	Power System Laboratory-I	0-0-3	2	HSHM3305	Business Communication & Interview Skills	0-0-3	1
	Total (Practical/ Sessional)	9	6	PJEE8301	Skill Project	0-0-3	2
	TOTAL	26	21		Total (Practical/ Sessional)	12	7
					TOTAL	28	21
TOTAL SEMESTER CREDITS: 21				TOTAL SEMESTER CREDITS: 21			
TOTAL CUMULATIVE CREDITS: 104				TOTAL CUMULATIVE CREDITS: 125			

PJEE8301	Skill Project	0-0-3	Credit-2
<p>List of Experiments:</p> <ol style="list-style-type: none">1. To prepare married joint of stranded aluminium or copper wire.2. To prepare shackle insulator joint.3. To prepare pin insulator joint.4. To prepare Britannia joint.5. To prepare an electrical switch board.6. To make the connection and testing of Sodium vapour lamp.7. To make the connection and testing of Mercury vapour lamp.8. To prepare a pipe earthing for a residential building and to measure the earth resistance.			

Course Structure for 3rdYear B.Tech
ELECTRONICS AND TELECOMMUNICATION ENGINEERING
(Admission Batch: 2018-19 Onwards)

Fifth Semester				Sixth Semester			
Theory				Theory			
Course Code	Course Name	L-T-P (Periods/Week)	Credits	Course Code	Course Name	L-T-P (Periods/Week)	Credits
	Programme Core Subject						
PCEC4306	Communication Engineering	3-0-0	3	HSHM3306M/ HSHM3306	Enhancing Soft Skills and Personality	2-0-0	2
PCEC4307	Digital Signal Processing	3-0-0	3		Programme Core Subject		
PCEC4308	VLSI Design	3-0-0	3	PCEC4309	Control System	3-0-0	3
(Any One)	Programme Elective I Refer the list of programme elective I	3-0-0	3	(Any One)	Programme Elective II Refer the list of programme elective II	3-0-0	3
(Any One)	Open Elective II Refer List of Open Electives	3-0-0	3	(Any One)	Open Elective III Refer List of Open Electives	3-0-0	3
	Mandatory Course V	2-0-0	0		Mandatory Course VI	2-0-0	0
MCGN9305/ MCHM9306	Environmental Science/ Universal Human Values			MCHM9306/ MCGN9305	Universal Human Values/ Environmental Science		
	Total (Theory)	17	15		Total (Theory)	16	14
	Honours/ Minor	3-1-0	4		Honours/ Minor	3-1-0	4
HNEC0303	Machine Learning			HNEC0304	Cognitive Radio		
MNEC0303	Principles of Communication Engineering			MNEC0304	Computer Network and Data Communication		
	Practical/ Sessional				Practical/ Sessional		
PCEC7306	Communication Engineering Lab	0-0-3	2	PCEC7309	Control and Instrumentation Lab	0-0-3	2
PCEC7307	Digital Signal Processing Lab	0-0-3	2	PCEC7310	Microwave Engineering Lab	0-0-3	2
PCEC7308	VLSI Design Lab	0-0-3	2	HSHM3305	Business Communication & Interview Skills	0-0-3	1
	Total (Practical/ Sessional)	9	6	PJEC8301	Skill Project	0-0-3	2
	TOTAL	26	21		Total (Practical/ Sessional)	12	7
					TOTAL	28	21
TOTAL SEMESTER CREDITS: 21				TOTAL SEMESTER CREDITS: 21			
TOTAL CUMULATIVE CREDITS: 104				TOTAL CUMULATIVE CREDITS: 125			

PJEC8301	Skill Project	0-0-3	Credits 2
<p>LIST OF EXPERIMENTS:</p> <p style="text-align: center;">(Any three)</p> <ol style="list-style-type: none"> 1. Build a smart IoT device to control all the home appliances using an Android App. 2. Build a Robot that can follow a line, follow/avoid an obstacle autonomously. 3. Finding out the price of a house based on different available features using linear regression. 4. Grouping of customers by a telephone company using various classification techniques. 5. Build a smart irrigation system using Raspberry Pi. 6. Understand Android development concepts and develop different Apps. 7. Develop ladder logic to develop MUX and De- MUX. 8. Implementation of counter in PLC programming. 			

Course Structure for 3rd Year B.Tech MECHANICAL ENGINEERING
(Admission Batch: 2018-19 Onwards)

Fifth Semester				Sixth Semester			
Theory				Theory			
Course Code	Course Name	L-T-P (Periods/ Week)	Credits	Course Code	Course Name	L-T-P (Periods/ Week)	Credits
	<i>Programme Core Subject</i>			HSHM3306M/ HSHM3306	Enhancing Soft skills and Personality	2-0-0	2
PCME4306	Theory of Machine-II	3-0-0	3	PCME4309	Machine Design-I	3-0-0	3
PCME4307	Power Engineering	3-0-0	3	PCME4310	Product Design and Production Tooling	3-0-0	3
PCME4308	Manufacturing Technology- II	3-0-0	3				
(Any One)	<i>Programme Elective I</i>	3-0-0	3	(Any One)	<i>Programme Elective II</i>	3-0-0	3
PEME5301/	Micro-Electro Mechanical system/			PEME5304/	Advanced Mechanics of Material		
PEME5302/	Simulation, Modelling and Control/			PEME5305/	Mechanical Measurement and Control		
PEME5303/	Non- Conventional Energy Sources			PEME5306/	Machine Conditioning Monitoring		
(Any One)	<i>Open Elective II</i>	3-0-0	3	(Any One)	<i>Open Elective III</i>	3-0-0	3
	Refer list of Open Electives				Refer list of Open Electives		
	Mandatory Course V	2-0-0	0		Mandatory Course VI	2-0-0	0
MCGN9305/ MCHM9306	Environmental Science/ Universal Human Values			MCHM9306 /MCGN9305	Universal Human Values/ Environmental Science		
	Total (Theory)	17	15		Total (Theory)	16	14
	Honours/ Minor	3-1-0	4		Honours/ Minor	3-1-0	4
HNME0304	Advanced Mechanics of Solids/			HNME0307	Advanced Fluid Mechanics		
HNME0305	Design of Machine Components/			HNME0308	Fluid Power and Turbo Machinery		
HNME0306	Experimental Stress Analysis			HNME0309	Power Plant Engineering		
MNME0303	Manufacturing Processes			MNME0304	Mechanics of Solid		
	Practical/ Sessional				Practical/ Sessional		
PCME7306	Machine Dynamics Lab - II	0-0-3	2	PCME7309	Machine Design Lab	0-0-3	2
PCME7307	Mechanical Engineering Lab - III	0-0-3	2	PCME7310	Advanced Manufacturing Lab	0-0-3	2
PCME7308	Manufacturing Technology-II Lab	0-0-3	2	HSHM3305	Business Communication & Interview Skills	0-0-3	1
	Total (Practical/ Sessional)	9	6	PJME8301	Skill Project	0-0-3	2
	TOTAL	26	21		Total (Practical/ Sessional)	12	7
					TOTAL	28	21
TOTAL SEMESTER CREDITS: 21				TOTAL SEMESTER CREDITS: 21			
TOTAL CUMULATIVE CREDITS: 104				TOTAL CUMULATIVE CREDITS: 125			

INDIRA GANDHI INSTITUTE OF TECHNOLOGY, SARANG
Course Structure for 3rd Year B.Tech METALLURGICAL AND MATERIALS ENGINEERING
(Admission Batch: 2018-19 Onwards)

Fifth Semester				Sixth Semester			
Theory				Theory			
Course Code	Course Name	L-T-P (Periods/Week)	Credits	Course Code	Course Name	L-T-P (Periods/Week)	Credits
	Programme Core Subject			HSHM3306M/	Enhancing Soft Skills and	2-0-0	2
PCMT4306	Physical Metallurgy	3-0-0	3	HSHM3306	Personality		
PCMT4307	Iron Making	3-0-0	3		Programme Core Subject		
PCMT4308	Non-Ferrous Extractive Metallurgy	3-0-0	3	PCMT4309	Steel Making	3-0-0	3
(Any One)	Programme Elective I	3-0-0	3	PCMT4310	Mechanical Working & Testing of Materials	3-0-0	3
PEMT5301/	Mineral Processing/			(Any One)	Programme Elective II	3-0-0	3
PEMT5302/	Fuel Technology/			PEMT5304/	Instrumental Methods of Analysis/		
PEMT5303/	Refractories and Furnaces			PEMT5305/	Non Destructive Testing of Materials/		
				PEMT5306	Polymer Technology		
(Any One)	Open Elective II	3-0-0	3	(Any One)	Open Elective III	3-0-0	3
	Refer List of Open Electives				Refer List of Open Electives		
	Mandatory Course V	2-0-0	0		Mandatory Course VI	2-0-0	0
MCGN9305/	Environmental Science/			MCHM9306	Universal Human Values/		
MCHM9306	Universal Human Values			/MCGN9305	Environmental Science		
	Total (Theory)	17	15		Total (Theory)	16	14
	Honours/ Minor	3-1-0	4		Honours/ Minor	3-1-0	4
HNMT0303	Material Failure and Analysis			HNMT0304	Secondary Steel Making		
MNMT0303	Mechanical Metallurgy			MNMT0304	Iron Making & Steel Making		
	Practical/ Sessional				Practical/ Sessional		
PCMT7306	Heat Treatment Laboratory	0-0-3	2	PCMT7309	Advanced Materials Processing Laboratory	0-0-3	2
PCMT7307	Process Metallurgy Laboratory	0-0-3	2	PCMT7310	Computer Application in Metallurgy	0-0-3	2
PCMT7308	Mineral Processing & Fuel Testing Laboratory	0-0-3	2	HSHM3305	Business Communication & Interview Skills	0-0-3	1
	Total (Practical/ Sessional)	9	6	PJMT8301	Skill Project	0-0-3	2
	TOTAL	26	21		Total (Practical/ Sessional)	12	7
	TOTAL	26	21		TOTAL	28	21
TOTAL SEMESTER CREDITS: 21				TOTAL SEMESTER CREDITS: 21			
TOTAL CUMULATIVE CREDITS: 104				TOTAL CUMULATIVE CREDITS: 125			

INDIRA GANDHI INSTITUTE OF TECHNOLOGY, SARANG
Course Structure for 3rd Year B.Tech PRODUCTION ENGINEERING
(Admission Batch: 2018-19 Onwards)

Fifth Semester				Sixth Semester			
Theory				Theory			
Course Code	Course Name	L-T-P (Periods/Week)	Credits	Course Code	Course Name	L-T-P (Periods/Week)	Credits
	Programme Core Subject						
PCPD4306	Metal Forming Technology	3-0-0	3	HSHM3306M/ HSHM3306	Enhancing Soft skills and Personality	2-0-0	2
PCPD4307	Tool Design	3-0-0	3		Programme Core Subject		
PCPD4308	Metrology & Inspection	3-0-0	3	PCPD4309	CAD/CAM	3-0-0	3
(Any One)	Programme Elective I	3-0-0	3	PCPD4310	Advanced Machining Technology	3-0-0	3
PEPD5301/	Fluid Mechanics & Hydraulic Machine /			(Any One)	Programme Elective II	3-0-0	3
PEPD5302/	Hydraulics & Pneumatics/			PEPD5304/	Statistical Quality Control & Reliability/		
PEPD5303/	Tribology in Design and Manufacturing			PEPD5305/	Quality Assurance and Reliability/		
(Any One)	Open Elective II			PEPD5306/	Total Quality Management		
	Refer List of Open Electives	3-0-0	3	(Any One)	Open Elective III	3-0-0	3
	Mandatory Course V	2-0-0	0		Refer List of Open Electives		
MCGN9305/ MCHM9306	Environmental Science/ Universal Human Values			MCHM9306/ MCGN9305	Universal Human Values/ Environmental Science	2-0-0	0
	Total (Theory)	17	15		Total (Theory)	16	14
	Honours/ Minor	3-1-0	4		Honours/ Minor	3-1-0	4
HNPDP0303	Advanced Casting & Welding			HNPDP0304	Theory of Plastic Deformation		
MNPDP0303	CAD/CAM			MNPDP0304	Robotics & Robot Application		
	Practical/ Sessional				Practical/ Sessional		
PCPD7306	Metal Forming Lab	0-0-3	2	PCPD7309	CAD/CAM Lab	0-0-3	2
PCPD7307	Tool Design Sessional	0-0-3	2	PCPD7310	Advanced Machining Lab	0-0-3	2
PCPD7308	Metrology & Inspection Lab	0-0-3	2	HSHM3305	Business Communication & Interview Skills	0-0-3	1
	Total (Practical/ Sessional)	9	6	PJPD8301	Skill Project	0-0-3	2
	TOTAL	26	21		Total (Practical/ Sessional)	12	7
	TOTAL	26	21		TOTAL	28	21
TOTAL SEMESTER CREDITS: 21				TOTAL SEMESTER CREDITS: 21			
TOTAL CUMULATIVE CREDITS: 104				TOTAL CUMULATIVE CREDITS: 125			

INDIRA GANDHI INSTITUTE OF TECHNOLOGY, SARANG
Course Structure for 3rdYear B.Tech CIVIL ENGINEERING
(Admission Batch: 2018-19 Onwards)

Fifth Semester				Sixth Semester			
Theory				Theory			
Course Code	Course Name	L-T-P (Periods/Week)	Credits	Course Code	Course Name	L-T-P (Periods/Week)	Credits
				HSHM3306M/ HSHM3306	Enhancing Soft Skills and Personality	2-0-0	2
PCCE4306	<i>Programme Core Subject</i> Design of Steel Structures	3-0-0	3	PCCE4309	<i>Programme Core Subject</i> Design of Concrete Structures - II	3-0-0	3
PCCE4307	Environmental Engineering	3-0-0	3	PCCE4310	Structural Analysis - II	3-0-0	3
PCCE4308	Geo Technical Engineering	3-0-0	3	(Any One) PECE5303/	<i>Programme Elective II</i> Irrigation Engineering and Irrigation Structures	3-0-0	3
(Any One) PECE5301/ PECE5302	<i>Programme Elective I</i> Open Channel Flow/ Water Resources Engineering	3-0-0	3				
(Any One)	<i>Open Elective II</i> Refer List of Open Electives	3-0-0	3	(Any One)	<i>Open Elective III</i> Refer List of Open Electives	3-0-0	3
MCGN9305/ MCHM9306	Mandatory Course V Environmental Science/ Universal Human Values	2-0-0	0	MCHM9306/ MCGN9305	Mandatory Course VI Universal Human Values/ Environmental Science	2-0-0	0
	Total (Theory)	17	15		Total (Theory)	16	14
	Honours/ Minor	3-1-0	4		Honours/ Minor	3-1-0	4
HNCE0303	Design of Structural Systems			HNCE0304	Ground Improvement Engineering		
	Practical/ Sessional				Practical/ Sessional		
PCCE7306	Detailing of Steel Structures	0-0-3	2	PCCE7309	Detailing of Advanced Concrete Structures	0-0-3	2
PCCE7307	Environmental Engineering Laboratory	0-0-3	2	PCCE7310	Transportation Engineering Laboratory	0-0-3	2
PCCE7308	Geo Technical Engineering Laboratory	0-0-3	2	HSHM3305	Business Communication & Interview Skills	0-0-3	1
	Total (Practical/ Sessional)	9	6	PJCE8301	Skill Project	0-0-3	2
	TOTAL	26	21		Total (Practical/ Sessional)	12	7
					TOTAL	28	21
TOTAL SEMESTER CREDITS: 21				TOTAL SEMESTER CREDITS: 21			
TOTAL CUMULATIVE CREDITS: 104				TOTAL CUMULATIVE CREDITS: 125			

INDIRA GANDHI INSTITUTE OF TECHNOLOGY, SARANG

**Course Structure for 3rdYear B.Tech
ELECTRONICS AND TELECOMMUNICATION ENGINEERING**

(Admission Batch: 2018-19 Onwards)

Fifth Semester				Sixth Semester			
Theory				Theory			
Course Code	Course Name	L-T-P (Periods/ Week)	Credits	Course Code	Course Name	L-T-P (Periods/ Week)	Credits
	Programme Core Subject			HSHM3306M/ HSHM3306	Enhancing Soft Skills and Personality	2-0-0	2
PCEC4306	Communication Engineering	3-0-0	3		Programme Core Subject		
PCEC4307	Digital Signal Processing	3-0-0	3	PCEC4309	Control System	3-0-0	3
PCEC4308	VLSI Design	3-0-0	3	PCEC4310	Microwave Engineering	3-0-0	3
(Any One)	Programme Elective I Refer the list of programme elective I	3-0-0	3	(Any One)	Programme Elective II Refer the list of programme elective II	3-0-0	3
(Any One)	Open Elective II Refer List of Open Electives	3-0-0	3	(Any One)	Open Elective III Refer List of Open Electives	3-0-0	3
	Mandatory Course V	2-0-0	0		Mandatory Course VI	2-0-0	0
MCGN9305/ MCHM9306	Environmental Science/ Universal Human Values			MCHM9306/ MCGN9305	Universal Human Values/ Environmental Science		
	Total (Theory)	17	15		Total (Theory)	16	14
	Honours/ Minor	3-1-0	4		Honours/ Minor	3-1-0	4
HNEC0303	Machine Learning			HNEC0304	Cognitive Radio		
MNEC0303	Principles of Communication Engineering			MNEC0304	Computer Network and Data Communication		
	Practical/ Sessional				Practical/ Sessional		
PCEC7306	Communication Engineering Lab	0-0-3	2	PCEC7309	Control and Instrumentation Lab	0-0-3	2
PCEC7307	Digital Signal Processing Lab	0-0-3	2	PCEC7310	Microwave Engineering Lab	0-0-3	2
PCEC7308	VLSI Design Lab	0-0-3	2	HSHM3305	Business Communication & Interview Skills	0-0-3	1
	Total (Practical/ Sessional)	9	6	PJEC8301	Skill Project	0-0-3	2
	TOTAL	26	21		Total (Practical/ Sessional)	12	7
					TOTAL	28	21
TOTAL SEMESTER CREDITS: 21				TOTAL SEMESTER CREDITS: 21			
TOTAL CUMULATIVE CREDITS: 104				TOTAL CUMULATIVE CREDITS: 125			

INDIRA GANDHI INSTITUTE OF TECHNOLOGY, SARANG
B.TECH SYLLABUS for ELECTRONICS AND TELECOMMUNICATION ENGINEERING
 (Admission Batch: 2018-19 Onwards)
 6th Semester

HSHM3306	Enhancing Soft Skills and Personality	2-0-0	Credit-2
<p>Course Objective</p> <p>The course aims to cause an enhanced awareness about the significance of soft skills in professional and inter-personal communications and facilitate an all-round development of personality. Hard or technical skills help securing a basic position in one's life and career. But only soft skills can ensure a person retain it, climb further, reach a pinnacle, achieve excellence, and derive fulfillment and supreme joy. Soft skills comprise pleasant and appealing personality traits as self-confidence, positive attitude, emotional intelligence, social grace, flexibility, friendliness and effective communication skills. The focus of this course is on interpersonal and management skills.</p>			
<p>Module I</p> <ul style="list-style-type: none"> •Highlights of Developing Soft Skills and Personality Course-1-24 •Highlights of Developing Soft Skills and Personality Course-25-48 •Definitions and Types of Mindset •Learning Mindsets •Secrets of Developing Growth Mindsets •Importance of Time and Understanding Perceptions of Time •Using Time Efficiently •Understanding Procrastination •Overcoming Procrastination •Don't Say "Yes" to Make Others Happy! 		<p>10 Hours</p>	
<p>Module II:</p> <ul style="list-style-type: none"> • Types of People • How to Say "No" • Controlling Anger • Gaining Power from Positive Thinking-1 • Gaining Power from Positive Thinking-2 • What Makes Others Dislike You? • What Makes Others Like You?-1 • What Makes Others Like You?-2 • Being Attractive-1 • Being Attractive-2 		<p>10 Hours</p>	

Module III**10 Hours**

- Common Errors-1
- Common Errors-2
- Common Errors-3
- Common Errors-4
- Common Errors-5
- Humour in Communication
- Humour in the Workplace
- Function of Humour in the Workplace
- Money and Personality
- Managing Money

Module IV**10 Hours**

- Health and Personality
- Managing Health-1: Importance of Exercise
- Managing Health-2: Diet and Sleep
- Love and Personality
- Managing Love
- Ethics and Etiquette
- Business Etiquette
- Managing Mind and Memory
- Improving Memory
- Care for Environment
- Highlights of the Course

Books for Reference:

1. Dorch, Patricia. What Are Soft Skills? New York: Execu Dress Publisher, 2013.
2. Kamin, Maxine. Soft Skills Revolution: A Guide for Connecting with Compassion for Trainers, Teams, and Leaders. Washington, DC: Pfeiffer & Company, 2013.
3. Klaus, Peggy, Jane Rohman & Molly Hamaker. The Hard Truth about Soft Skills. London: Harper Collins E-books, 2007.
4. Petes S. J., Francis. Soft Skills and Professional Communication. New Delhi: Tata McGraw-Hill Education, 2011.
5. Stein, Steven J. & Howard E. Book. The EQ Edge: Emotional Intelligence and Your Success. Canada: Wiley & Sons, 2006.

HSHM3305	Business Communication & Interview Skills	0-0-3	Credit-1
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COURSE OBJECTIVES

1. To develop communicative competence in prospective engineers.
2. To train them to participate in Group Discussion, presentation & face interview
3. To understand team dynamic & effectiveness.
4. To learn leadership qualities and practice them.
5. To develop basic personality traits.

Detailed Syllabus

Emphasis will have to be given to practice sessions in the class room by the learners

Module –I

(08 Hours)

1. Soft Skills: An introduction-Definition and Significance of Soft Skills; Importance and Measurement of Soft Skill Development, Role of effective communication in professional life.
2. Self-Discovery: Discovering the Self; Beliefs, Values, Attitude, Virtue,
3. Being Creative: Out of the box thinking, Lateral Thinking and its use.

Module-II

(12 hours)

1. Public Speaking: Skills, Methods, Strategies and Essential tips for effective public speaking.
2. Teamwork and Leadership Skills: Concept of Teams; Building effective teams; being a team player, Concept of Leadership and developing Leadership skills
3. Group Discussion: Importance, Planning, Elements and Skills. GD as part of a selection process: Evaluation and Analysis

Module-III

(12 hours)

1. Interview Skills: Interviewee-in-depth perspectives, Types of Interview- In Campus / Onsite/ Telephonic, Before, During and After the Interview. Tips for Success.
2. Presentation Skills: Types, Content, Audience Analysis, Essential Tips-Before, During and After, Overcoming Nervousness/ reducing stage fright, visualization strategies, on camera techniques.
3. Preparing Curriculum Vitae, Resume, Bio-data, Job Application

Module-IV

(08 hours)

1. Stress/ Time Management: Definition, Nature, types, Symptoms and Causes; Stress Analysis Models and Impact of Stress; Measurement and Management of Stress. Effective utilization of Time as a resource, Managing Time
2. Leadership and Assertiveness Skills: A Good Leader; Leaders and Managers; Types of Leadership behavior; Assertiveness Skills.
3. Emotional Intelligence: Meaning, Features, Intrapersonal and Management Excellence; Strategies to enhance Emotional Intelligence.

Reference Books:

1. Managing Soft Skills for Personality Development-edited by B.N. Ghosh, McGraw Hill India, 2012.
2. English and Soft Skills-S.P. Dhanavel, Orient Blackswan India, 2012.
3. Personality Development and Soft Skills by Barun Mitra OUP
4. Communication Skills second edition Kumar Lata OUP
5. Crash Course in Personal Development- Brian Clegg Kogan Page Publication
6. Lateral Thinking by Edward De Bono Penguin Books

COURSE OUTCOMES

By the end of course, students shall be able to:

1. Understand the significance and essence of a wide range of soft skills. Learn how to apply soft skills in a wide range of routine social and professional settings.
2. Learn how to employ soft skills to improve interpersonal relationships. Learn how to use soft skills to enhance employability and ensure workplace and career success.
3. Participate in different types of Group Discussions/ Activities effectively, presenting a topic and face interviews with confidence.