

GUJARAT TECHNOLOGICAL UNIVERSITY

Computer Engineering (Software Engineering) (02)

w.e.f Jul 2015

Semester III						Theory Marks		Tutorial/ Practical Marks				Total Marks
Subject Code	Subject Name	Theory	Tutorial/ Presentation	Practical	Credits	ESE(E)	PA (M)	ESE (V)		PA(I)		
								ESE	OEP	PA	RP	
	Major Elective - IV	3	2#	2	5	70	30	20	10	10	10	150
2730004	Seminar (Presentation + Attendance@ + Preparation of learning material*)#	0	4	0	2	0	0	0	0	100	0	100
2730002	Internal Review\$	0	2	0	1	0	0	0	0	100	0	100
2730003	Dissertation Phase - I (Literature Review, Problem Formulation, Progress and Work Plan)	0	0	20	10	0	0	100	0	0	0	100
Total Credits					18							

Major Elective IV

2730206	Ubiquitous Computing
2730207	Pattern Recognition
2730208	Cloud Computing

Instrumentation and Control (Applied Instrumentation) (03)

w.e.f Jul 2015

Semester III						Theory Marks		Tutorial/ Practical Marks				Total Marks
Subject Code	Subject Name	Theory	Tutorial/ Presentation	Practical	Credits	ESE(E)	PA (M)	ESE (V)		PA(I)		
								ESE	OEP	PA	RP	
	Major Elective - IV	3	2#	2	5	70	30	20	10	10	10	150
2730004	Seminar (Presentation + Attendance@ + Preparation of learning material*)#	0	4	0	2	0	0	0	0	100	0	100
2730002	Internal Review\$	0	2	0	1	0	0	0	0	100	0	100
2730003	Dissertation Phase - I (Literature Review, Problem Formulation, Progress and Work Plan)	0	0	20	10	0	0	100	0	0	0	100
Total Credits					18							

Major Elective IV

2730303	Image processing for Instrumentation
2730304	Real Time Operating System
2730305	Virtual Instrumentation
2730306	Sensor Data Fusion

Electronics & Communication (Communication Systems Engg) (05)

w.e.f Jul 2015

Semester III						Theory Marks		Tutorial/ Practical Marks				Total Marks
Subject Code	Subject Name	Theory	Tutorial/ Presentation	Practical	Credits	ESE(E)	PA (M)	ESE (V)		PA(I)		
								ESE	OEP	PA	RP	
	Major Elective - IV	4	0	2#	5	70	30	20	10	10	10	150
2730004	Seminar (Presentation + Attendance@ + Preparation of learning material*)#	0	4	0	2	0	0	0	0	100	0	100
2730002	Internal Review\$	0	2	0	1	0	0	0	0	100	0	100
2730003	Dissertation Phase - I (Literature Review, Problem Formulation, Progress and Work Plan)	0	0	20	10	0	0	100	0	0	0	100
Total Credits					18							

Major Elective IV

2730501	Introduction to Stochastic Control
2730502	Advanced Digital Communication
2730503	Artificial Neural Networks
2730504	Introduction to Optimization techniques

Electrical Engineering (07)

w.e.f Jul 2015

Semester III						Theory Marks		Tutorial/ Practical Marks				Total Marks
Subject Code	Subject Name	Theory	Tutorial/ Presentation	Practical	Credits	ESE(E)	PA (M)	ESE (V)		PA(I)		
								ESE	OEP	PA	RP	
	Major Elective - IV	3	2#	2	5	70	30	20	10	10	10	150
2730004	Seminar (Presentation + Attendance@ + Preparation of learning material*)#	0	4	0	2	0	0	0	0	100	0	100
2730002	Internal Review\$	0	2	0	1	0	0	0	0	100	0	100

2730003	Dissertation Phase - I (Literature Review, Problem Formulation, Progress and Work Plan)	0	0	20	10	0	0	100	0	0	0	100
Total Credits					18							

Major Elective IV		Group
2730706	Power System Dynamics and Control	Power System Group
2730707	Power Quality issues and their mitigation Techniques	Power System Group
2730708	Advanced Control Techniques for Electrical Machines	Power Electronics Group
2730709	Modeling and Analysis of Power Converters	Power Electronics Group
2730703	Intelligent Control	Automation and Control Group
2730711	Advanced microcontroller	Power System Group, Automation and Control Group, Power Electronics Group

Mechanical (CAD/CAM) (08)

w.e.f Jul 2015

Semester III						Theory Marks		Tutorial/ Practical Marks				Total Marks
Subject Code	Subject Name	Theory	Tutorial/ Presentation	Practical	Credits	ESE(E)	PA (M)	ESE (V)		PA(I)		
								ESE	OEP	PA	RP	
	Major Elective - IV	3	2#	2	5	70	30	20	10	10	10	150
2730004	Seminar (Presentation + Attendance@ + Preparation of learning material*)#	0	4	0	2	0	0	0	0	100	0	100
2730002	Internal Review\$	0	2	0	1	0	0	0	0	100	0	100
2730003	Dissertation Phase - I (Literature Review, Problem Formulation, Progress and Work Plan)	0	0	20	10	0	0	100	0	0	0	100
Total Credits					18							

Major Elective IV	
2730808	Robotics Engineering
2730806	Mechanics and Manufacturing of Composites
2730807	Oil Hydraulics and Pneumatics

Mechanical (Machine Design) (09)

w.e.f Jul 2015

Semester III						Theory Marks		Tutorial/ Practical Marks				Total Marks
Subject Code	Subject Name	Theory	Tutorial/ Presentation	Practical	Credits	ESE(E)	PA (M)	ESE (V)		PA(I)		
								ESE	OEP	PA	RP	
	Major Elective - IV	3	2#	2	5	70	30	20	10	10	10	150
2730004	Seminar (Presentation + Attendance@ + Preparation of learning material*)#	0	4	0	2	0	0	0	0	100	0	100
2730002	Internal Review\$	0	2	0	1	0	0	0	0	100	0	100
2730003	Dissertation Phase - I (Literature Review, Problem Formulation, Progress and Work Plan)	0	0	20	10	0	0	100	0	0	0	100
	Total Credits				18							

Major Elective IV

2730808	Robotics Engineering
2730806	Mechanics and Manufacturing of Composites
2730807	Oil Hydraulics and Pneumatics

Mechanical (Cryogenic Engineering) (10)

w.e.f Jul 2015

Semester III						Theory Marks		Tutorial/ Practical Marks				Total Marks
Subject Code	Subject Name	Theory	Tutorial/ Presentation	Practical	Credits	ESE(E)	PA (M)	ESE (V)		PA(I)		
								ESE	OEP	PA	RP	
	Major Elective - IV	3	2#	2	5	70	30	20	10	10	10	150
2730004	Seminar (Presentation + Attendance@ + Preparation of learning material*)#	0	4	0	2	0	0	0	0	100	0	100
2730002	Internal Review\$	0	2	0	1	0	0	0	0	100	0	100
2730003	Dissertation Phase - I (Literature Review, Problem Formulation, Progress and Work Plan)	0	0	20	10	0	0	100	0	0	0	100
	Total Credits				18							

Major Elective IV

2731002	Advanced Cryocoolers
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Mechanical (I.C. Engine & Automobile Engineering) (11)

w.e.f Jul 2015

Semester III						Theory Marks		Tutorial/ Practical Marks				Total Marks
Subject Code	Subject Name	Theory	Tutorial/ Presentation	Practical	Credits	ESE(E)	PA (M)	ESE (V)		PA(I)		
								ESE	OEP	PA	RP	
	Major Elective - IV	3	2#	2	5	70	30	20	10	10	10	150
2730004	Seminar (Presentation + Attendance@ + Preparation of learning material*)#	0	4	0	2	0	0	0	0	100	0	100
2730002	Internal Review\$	0	2	0	1	0	0	0	0	100	0	100
2730003	Dissertation Phase - I (Literature Review, Problem Formulation, Progress and Work Plan)	0	0	20	10	0	0	100	0	0	0	100
	Total Credits				18							

Major Elective IV

2731104	Automotive Aerodynamics & Safety
2731101	I.C.Engine modeling and Simulation
2731105	Design of Heat Exchanger

Civil (Transportation Engineering) (13)

w.e.f Jul 2015

Semester III						Theory Marks		Tutorial/ Practical Marks				Total Marks
Subject Code	Subject Name	Theory	Tutorial/ Presentation	Practical	Credits	ESE(E)	PA (M)	ESE (V)		PA(I)		
								ESE	OEP	PA	RP	
	Major Elective - IV	3	2#	2	5	70	30	20	10	10	10	150
2730004	Seminar (Presentation + Attendance@ + Preparation of learning material*)#	0	4	0	2	0	0	0	0	100	0	100
2730002	Internal Review\$	0	2	0	1	0	0	0	0	100	0	100
2730003	Dissertation Phase - I (Literature Review, Problem Formulation, Progress and Work Plan)	0	0	20	10	0	0	100	0	0	0	100
	Total Credits				18							

Major Elective IV

2731306	Traffic Flow Theory and Simulation
2731302	Soft Computing Techniques
2731307	Road Safety Audit
2731308	Pavement Management System

Civil (Construction Engineering and Management) (14)

w.e.f Jul 2015

Semester III						Theory Marks		Tutorial/ Practical Marks				Total Marks
Subject Code	Subject Name	Theory	Tutorial/ Presentation	Practical	Credits	ESE(E)	PA (M)	ESE (V)		PA(I)		
								ESE	OEP	PA	RP	
	Major Elective - IV	4	2#	0	5	70	30	30	0	10	10	150
2730004	Seminar (Presentation + Attendance@ + Preparation of learning material*)#	0	4	0	2	0	0	0	0	100	0	100
2730002	Internal Review\$	0	2	0	1	0	0	0	0	100	0	100
2730003	Dissertation Phase - I (Literature Review, Problem Formulation, Progress and Work Plan)	0	0	20	10	0	0	100	0	0	0	100
Total Credits					18							

Major Elective IV

2731404	Human Resource Management
2731405	Geo informatics in Construction Management
2731406	Maintenance and repair projects
2731402	Operation research in construction Projects

Chemical Engineering (Computer Aided Process Design) (16)

w.e.f Jul 2015

Semester III						Theory Marks		Tutorial/ Practical Marks				Total Marks
Subject Code	Subject Name	Theory	Tutorial/ Presentation	Practical	Credits	ESE(E)	PA (M)	ESE (V)		PA(I)		
								ESE	OEP	PA	RP	
	Major Elective - IV	3	2#	2	5	70	30	20	10	10	10	150
2730004	Seminar (Presentation + Attendance@ + Preparation of learning material*)#	0	4	0	2	0	0	0	0	100	0	100

2730002	Internal Review\$	0	2	0	1	0	0	0	0	100	0	100
2730003	Dissertation Phase - I (Literature Review, Problem Formulation, Progress and Work Plan)	0	0	20	10	0	0	100	0	0	0	100
Total Credits					18							

Major Elective IV

2731602	Computer Aided Product & Process Design(CAPPD)
2731603	Polymer Structure & Property Prediction (PSPP)

Environmental Engineering (17)

w.e.f Jul 2015

Semester III						Theory Marks		Tutorial/ Practical Marks				Total Marks
Subject Code	Subject Name	Theory	Tutorial/ Presentation	Practical	Credits	ESE(E)	PA (M)	ESE (V)		PA(I)		
								ESE	OEP	PA	RP	
	Major Elective - IV	3	2#	2	5	70	30	20	10	10	10	150
2730004	Seminar (Presentation + Attendance@ + Preparation of learning material*)#	0	4	0	2	0	0	0	0	100	0	100
2730002	Internal Review\$	0	2	0	1	0	0	0	0	100	0	100
2730003	Dissertation Phase - I (Literature Review, Problem Formulation, Progress and Work Plan)	0	0	20	10	0	0	100	0	0	0	100
Total Credits					18							

Major Elective IV

2731703	Treatment Process Design and Drawing
2731704	Air Pollution Control Equipment

Environmental Management (18)

w.e.f Jul 2015

Semester III						Theory Marks		Tutorial/ Practical Marks				Total Marks
Subject Code	Subject Name	Theory	Tutorial/ Presentation	Practical	Credits	ESE(E)	PA (M)	ESE (V)		PA(I)		
								ESE	OEP	PA	RP	
	Major Elective - IV	3	2#	2	5	70	30	20	10	10	10	150

2730004	Seminar (Presentation + Attendance@ + Preparation of learning material*)#	0	4	0	2	0	0	0	0	100	0	100
2730002	Internal Review\$	0	2	0	1	0	0	0	0	100	0	100
2730003	Dissertation Phase - I (Literature Review, Problem Formulation, Progress and Work Plan)	0	0	20	10	0	0	100	0	0	0	100
Total Credits					18							

Major Elective IV

2731806	Industrial Wastewater Management
2731801	Advanced Wastewater Treatment Technologies

Civil (Structural Engineering) (20)

w.e.f Jul 2015

Semester III						Theory Marks		Tutorial/ Practical Marks				Total Marks
Subject Code	Subject Name	Theory	Tutorial/ Presentation	Practical	Credits	ESE(E)	PA (M)	ESE (V)		PA(I)		
								ESE	OEP	PA	RP	
	Major Elective - IV	3	2#	2	5	70	30	20	10	10	10	150
2730004	Seminar (Presentation + Attendance@ + Preparation of learning material*)#	0	4	0	2	0	0	0	0	100	0	100
2730002	Internal Review\$	0	2	0	1	0	0	0	0	100	0	100
2730003	Dissertation Phase - I (Literature Review, Problem Formulation, Progress and Work Plan)	0	0	20	10	0	0	100	0	0	0	100
Total Credits					18							

Major Elective IV

2732004	Rehabilitation and Retrofitting of Structures
2732005	Design of Tall Structures

Mechanical (Thermal Engineering) (21)

w.e.f Jul 2015

Semester III						Theory Marks		Tutorial/ Practical Marks				Total Marks
Subject Code	Subject Name	Theory	Tutorial/ Presentation	Practical	Credits	ESE(E)	PA (M)	ESE (V)		PA(I)		
								ESE	OEP	PA	RP	
	Major Elective - IV	3	2#	2	5	70	30	20	10	10	10	150
2730004	Seminar (Presentation + Attendance@ + Preparation of learning material*)#	0	4	0	2	0	0	0	0	100	0	100
2730002	Internal Review\$	0	2	0	1	0	0	0	0	100	0	100
2730003	Dissertation Phase - I (Literature Review, Problem Formulation, Progress and Work Plan)	0	0	20	10	0	0	100	0	0	0	100
	Total Credits				18							

Major Elective IV

2732104	Combustion Engineering
2732105	Advanced Air Conditioning Technology
2731105	Design of Heat Exchangers

Information Technology (23)

w.e.f Jul 2015

Semester III						Theory Marks		Tutorial/ Practical Marks				Total Marks
Subject Code	Subject Name	Theory	Tutorial/ Presentation	Practical	Credits	ESE(E)	PA (M)	ESE (V)		PA(I)		
								ESE	OEP	PA	RP	
	Major Elective - IV	3	2#	2	5	70	30	20	10	10	10	150
2730004	Seminar (Presentation + Attendance@ + Preparation of learning material*)#	0	4	0	2	0	0	0	0	100	0	100
2730002	Internal Review\$	0	2	0	1	0	0	0	0	100	0	100
2730003	Dissertation Phase - I (Literature Review, Problem Formulation, Progress and Work Plan)	0	0	20	10	0	0	100	0	0	0	100
	Total Credits				18							

Major Elective IV

2730206	Ubiquitous Computing
2732305	Advance Operating System
2732302	Internetworking and Applications

Plastic Technology (24)

w.e.f Jul 2015

Semester III						Theory Marks		Tutorial/ Practical Marks				Total Marks
Subject Code	Subject Name	Theory	Tutorial/ Presentation	Practical	Credits	ESE(E)	PA (M)	ESE (V)		PA(I)		
								ESE	OEP	PA	RP	
	Major Elective - IV	3	2#	2	5	70	30	20	10	10	10	150
2730004	Seminar (Presentation + Attendance@ + Preparation of learning material*)#	0	4	0	2	0	0	0	0	100	0	100
2730002	Internal Review\$	0	2	0	1	0	0	0	0	100	0	100
2730003	Dissertation Phase - I (Literature Review, Problem Formulation, Progress and Work Plan)	0	0	20	10	0	0	100	0	0	0	100
	Total Credits				18							

Major Elective IV

2732404	Plastics Testing Technology
2732405	Advanced Plastics Processing

Textile Engineering (25)

w.e.f Jul 2015

Semester III						Theory Marks		Tutorial/ Practical Marks				Total Marks
Subject Code	Subject Name	Theory	Tutorial/ Presentation	Practical	Credits	ESE(E)	PA (M)	ESE(V)		PA(I)		
								ESE	OEP	PA	RP	
	Major Elective - IV	3	2#	2	5	70	30	20	10	10	10	150
2730004	Seminar (Presentation + Attendance@ + Preparation of learning material*)#	0	4	0	2	0	0	0	0	100	0	100
2730002	Internal Review\$	0	2	0	1	0	0	0	0	100	0	100
2730003	Dissertation Phase - I (Literature Review, Problem Formulation, Progress and Work Plan)	0	0	20	10	0	0	100	0	0	0	100
	Total Credits				18							

Major Elective IV

2732502	Technical Textile
2732504	Advanced Fiber Properties
2732505	Advanced Processing: Process & Machinery

Electronics & Communication (Signal Processing And VLSI Technology) (26)

w.e.f Jul 2015

Semester III						Theory Marks		Tutorial/ Practical Marks				Total Marks
Subject Code	Subject Name	Theory	Tutorial/ Presentation	Practical	Credits	ESE(E)	PA (M)	ESE(V)		PA(I)		
								ESE	OEP	PA	RP	
	Major Elective - IV	4	0	2#	5	70	30	20	10	10	10	150
2730004	Seminar (Presentation + Attendance@ + Preparation of learning material*)#	0	4	0	2	0	0	0	0	100	0	100
2730002	Internal Review\$	0	2	0	1	0	0	0	0	100	0	100
2730003	Dissertation Phase - I (Literature Review, Problem Formulation, Progress and Work Plan)	0	0	20	10	0	0	100	0	0	0	100
	Total Credits				18							

Major Elective IV

2732604	Low Power CMOS VLSI Circuit Design
2732605	VLSI Test Principals and Architectures

Electronics & Communication (Wireless Communication Systems & Networks) (27)

w.e.f Jul 2015

Semester III						Theory Marks		Tutorial/ Practical Marks				Total Marks
Subject Code	Subject Name	Theory	Tutorial/ Presentation	Practical	Credits	ESE(E)	PA (M)	ESE(V)		PA(I)		
								ESE	OEP	PA	RP	
	Major Elective - IV	4	0	2#	5	70	30	20	10	10	10	150
2730004	Seminar (Presentation + Attendance@ + Preparation of learning material*)#	0	4	0	2	0	0	0	0	100	0	100
2730002	Internal Review\$	0	2	0	1	0	0	0	0	100	0	100
2730003	Dissertation Phase - I (Literature Review, Problem Formulation, Progress and Work Plan)	0	0	20	10	0	0	100	0	0	0	100
	Total Credits				18							

Major Elective IV

2732701	Smart Antennas for wireless communication
2732702	Adaptive signal Processing

Mechanical (Production Engineering) (28)

w.e.f Jul 2015

Semester III						Theory Marks		Tutorial/ Practical Marks				Total Marks
Subject Code	Subject Name	Theory	Tutorial/ Presentation	Practical	Credits	ESE(E)	PA (M)	ESE(V)		PA(I)		
								ESE	OEP	PA	RP	
	Major Elective - IV	3	2#	2	5	70	30	20	10	10	10	150
2730004	Seminar (Presentation + Attendance@ + Preparation of learning material*)#	0	4	0	2	0	0	0	0	100	0	100
2730002	Internal Review\$	0	2	0	1	0	0	0	0	100	0	100
2730003	Dissertation Phase - I (Literature Review, Problem Formulation, Progress and Work Plan)	0	0	20	10	0	0	100	0	0	0	100
	Total Credits				18							

Major Elective IV

2732805	Decision Modelling
2732806	Design of Experiment
2734604	Logistics and Supply Chain Management
2732808	Finite Element Analysis

Power Electronics (29)

w.e.f Jul 2015

Semester III						Theory Marks		Tutorial/ Practical Marks				Total Marks
Subject Code	Subject Name	Theory	Tutorial/ Presentation	Practical	Credits	ESE(E)	PA (M)	ESE(V)		PA(I)		
								ESE	OEP	PA	RP	
	Major Elective - IV	3	2#	2	5	70	30	20	10	10	10	150
2730004	Seminar (Presentation + Attendance@ + Preparation of learning material*)#	0	4	0	2	0	0	0	0	100	0	100
2730002	Internal Review\$	0	2	0	1	0	0	0	0	100	0	100

2730003	Dissertation Phase - I (Literature Review, Problem Formulation, Progress and Work Plan)	0	0	20	10	0	0	100	0	0	0	100
Total Credits					18							

Major Elective IV

2732903	Power Electronics for Power System
2732904	Computer Application in Power System
2732905	Advanced Control Systems

Chemical Engineering (30)

w.e.f Jul 2015

Semester III						Theory Marks		Tutorial/ Practical Marks				Total Marks
Subject Code	Subject Name	Theory	Tutorial/ Presentation	Practical	Credits	ESE(E)	PA (M)	ESE(V)		PA(I)		
								ESE	OEP	PA	RP	
	Major Elective - IV	3	2#	2	5	70	30	20	10	10	10	150
2730004	Seminar (Presentation + Attendance@ + Preparation of learning material*)#	0	4	0	2	0	0	0	0	100	0	100
2730002	Internal Review\$	0	2	0	1	0	0	0	0	100	0	100
2730003	Dissertation Phase - I (Literature Review, Problem Formulation, Progress and Work Plan)	0	0	20	10	0	0	100	0	0	0	100
Total Credits					18							

Major Elective IV

2733004	Advanced Separation Processes
2733005	Advanced Heat Transfer
2733006	Advanced Analytical Techniques
2733007	CFD Applications in Chemical Engineering

Bio Medical Engineering (31)

w.e.f Jul 2015

Semester III						Theory Marks		Tutorial/ Practical Marks				Total Marks
Subject Code	Subject Name	Theory	Tutorial/ Presentation	Practical	Credits	ESE(E)	PA (M)	ESE(V)		PA(I)		
								ESE	OEP	PA	RP	
	Major Elective - IV	3	2#	2	5	70	30	20	10	10	10	150

2730004	Seminar (Presentation + Attendance@ + Preparation of learning material*)#	0	4	0	2	0	0	0	0	100	0	100
2730002	Internal Review\$	0	2	0	1	0	0	0	0	100	0	100
2730003	Dissertation Phase - I (Literature Review, Problem Formulation, Progress and Work Plan)	0	0	20	10	0	0	100	0	0	0	100
Total Credits					24							

Major Elective IV

2733103	Electronic System Design
2733104	Biodynamics
2733105	Artificial Intelligence & Expert Systems

Civil (Water Resources Engineering) (33)

w.e.f Jul 2015

Semester III						Theory Marks		Tutorial/ Practical Marks				Total Marks
Subject Code	Subject Name	Theory	Tutorial/ Presentation	Practical	Credits	ESE(E)	PA (M)	ESE(V)		PA(I)		
								ESE	OEP	PA	RP	
	Major Elective - IV	3	2#	2	5	70	30	20	10	10	10	150
2730004	Seminar (Presentation + Attendance@ + Preparation of learning material*)#	0	4	0	2	0	0	0	0	100	0	100
2730002	Internal Review\$	0	2	0	1	0	0	0	0	100	0	100
2730003	Dissertation Phase - I (Literature Review, Problem Formulation, Progress and Work Plan)	0	0	20	10	0	0	100	0	0	0	100
Total Credits					18							

Major Elective IV

2733301	Design of hydraulic structures
2733302	Stochastic model in Water resources

Energy Engineering (39)

w.e.f Jul 2015

Semester III						Theory Marks		Tutorial/ Practical Marks				Total Marks
Subject Code	Subject Name	Theory	Tutorial/ Presentation	Practical	Credits	ESE(E)	PA (M)	ESE(V)		PA(I)		
								ESE	OEP	PA	RP	
	Major Elective - IV	3	2#	2	5	70	30	20	10	10	10	150
2730004	Seminar (Presentation + Attendance@ + Preparation of learning material*)#	0	4	0	2	0	0	0	0	100	0	100
2730002	Internal Review\$	0	2	0	1	0	0	0	0	100	0	100
2730003	Dissertation Phase - I (Literature Review, Problem Formulation, Progress and Work Plan)	0	0	20	10	0	0	100	0	0	0	100
Total Credits					18							

Major Elective IV

2732104	Combustion
2731105	Design of Heat Exchanger
2733905	Solar Refrigeration and Air Conditioning

Rubber Technology (40)

w.e.f Jul 2015

Semester III						Theory Marks		Tutorial/ Practical Marks				Total Marks
Subject Code	Subject Name	Theory	Tutorial/ Presentation	Practical	Credits	ESE(E)	PA (M)	ESE(V)		PA(I)		
								ESE	OEP	PA	RP	
	Major Elective - IV	3	2#	2	5	70	30	20	10	10	10	150
2730004	Seminar (Presentation + Attendance@ + Preparation of learning material*)#	0	4	0	2	0	0	0	0	100	0	100
2730002	Internal Review\$	0	2	0	1	0	0	0	0	100	0	100
2730003	Dissertation Phase - I (Literature Review, Problem Formulation, Progress and Work Plan)	0	0	20	10	0	0	100	0	0	0	100
Total Credits					18							

Major Elective IV

2734004	Thermosetting Resins & Silane Technology(TRST)
2734002	Elastomeric Gel & Polymer Clay (EGPC)

Electronics & Communication (Signal Processing & Communication) (41)

w.e.f Jul 2015

Semester III						Theory Marks		Tutorial/ Practical Marks				Total Marks
Subject Code	Subject Name	Theory	Tutorial/ Presentation	Practical	Credits	ESE(E)	PA (M)	ESE(V)		PA(I)		
								ESE	OEP	PA	RP	
	Major Elective - IV	0	2#	8	5	0	0	50	30	10	10	100
2730004	Seminar (Presentation + Attendance@ + Preparation of learning material*)#	0	4	0	2	0	0	0	0	100	0	100
2730002	Internal Review\$	0	2	0	1	0	0	0	0	100	0	100
2730003	Dissertation Phase - I (Literature Review, Problem Formulation, Progress and Work Plan)	0	0	20	10	0	0	100	0	0	0	100
	Total Credits				18							

Major Elective IV

[2734101](#) Signal Processing and Communication Laboratory

[2734105](#) Design of Communication Circuits

Electronics & Communication (VLSI System Design) (42)

w.e.f Jul 2015

Semester III						Theory Marks		Tutorial/ Practical Marks				Total Marks
Subject Code	Subject Name	Theory	Tutorial/ Presentation	Practical	Credits	ESE(E)	PA (M)	ESE(V)		PA(I)		
								ESE	OEP	PA	RP	
	Major Elective - IV	3	2#	2	5	70	30	20	10	10	10	150
2730004	Seminar (Presentation + Attendance@ + Preparation of learning material*)#	0	4	0	2	0	0	0	0	100	0	100
2730002	Internal Review\$	0	2	0	1	0	0	0	0	100	0	100
2730003	Dissertation Phase - I (Literature Review, Problem Formulation, Progress and Work Plan)	0	0	20	10	0	0	100	0	0	0	100
	Total Credits				18							

Major Elective IV

[2734202](#) IC Fabrication Technology

[2734203](#) High Speed CMOS VLSI Circuit

Civil (Geotechnical Engineering) (43)

w.e.f Jul 2015

Semester III						Theory Marks		Tutorial/ Practical Marks				Total Marks
Subject Code	Subject Name	Theory	Tutorial/ Presentation	Practical	Credits	ESE(E)	PA (M)	ESE(V)		PA(I)		
								ESE	OEP	PA	RP	
	Major Elective - IV	3	2#	2	5	70	30	20	10	10	10	150
2730004	Seminar (Presentation + Attendance@ + Preparation of learning material*)#	0	4	0	2	0	0	0	0	100	0	100
2730002	Internal Review\$	0	2	0	1	0	0	0	0	100	0	100
2730003	Dissertation Phase - I (Literature Review, Problem Formulation, Progress and Work Plan)	0	0	20	10	0	0	100	0	0	0	100
	Total Credits				18							

Major Elective IV

2734303	Earth and Rockfill dams
2734304	Rock Opening and Tunnels

Electronics & Communication (Wireless Communication Technology) (44)

w.e.f Jul 2015

Semester III						Theory Marks		Tutorial/ Practical Marks				Total Marks
Subject Code	Subject Name	Theory	Tutorial/ Presentation	Practical	Credits	ESE(E)	PA (M)	ESE(V)		PA(I)		
								ESE	OEP	PA	RP	
	Major Elective - IV	3	2#	2	5	70	30	20	10	10	10	150
2730004	Seminar (Presentation + Attendance@ + Preparation of learning material*)#	0	4	0	2	0	0	0	0	100	0	100
2730002	Internal Review\$	0	2	0	1	0	0	0	0	100	0	100
2730003	Dissertation Phase - I (Literature Review, Problem Formulation, Progress and Work Plan)	0	0	20	10	0	0	100	0	0	0	100
	Total Credits				18							

Major Elective IV

2734401	Software Radio Design
2734403	Wireless MIMO Communication
2734404	Ultra Wideband Communication

Power Electronics & Electrical Drives (45)

w.e.f Jul 2015

Semester III						Theory Marks		Tutorial/ Practical Marks				Total Marks
Subject Code	Subject Name	Theory	Tutorial/ Presentation	Practical	Credits	ESE(E)	PA (M)	ESE(V)		PA(I)		
								ESE	OEP	PA	RP	
	Major Elective - IV	3	2#	2	5	70	30	20	10	10	10	150
2730004	Seminar (Presentation + Attendance@ + Preparation of learning material*)#	0	4	0	2	0	0	0	0	100	0	100
2730002	Internal Review\$	0	2	0	1	0	0	0	0	100	0	100
2730003	Dissertation Phase - I (Literature Review, Problem Formulation, Progress and Work Plan)	0	0	20	10	0	0	100	0	0	0	100
	Total Credits				18							

Major Elective IV

2734501	Application of Power Electronics to Power System
2734503	Embedded Control of Electric Drives

Mechanical (Industrial Engineering) (46)

w.e.f Jul 2015

Semester III						Theory Marks		Tutorial/ Practical Marks				Total Marks
Subject Code	Subject Name	Theory	Tutorial/ Presentation	Practical	Credits	ESE(E)	PA (M)	ESE(V)		PA(I)		
								ESE	OEP	PA	RP	
	Major Elective - IV	3	2#	2	5	70	30	20	10	10	10	150
2730004	Seminar (Presentation + Attendance@ + Preparation of learning material*)#	0	4	0	2	0	0	0	0	100	0	100
2730002	Internal Review\$	0	2	0	1	0	0	0	0	100	0	100
2730003	Dissertation Phase - I (Literature Review, Problem Formulation, Progress and Work Plan)	0	0	20	10	0	0	100	0	0	0	100
	Total Credits				18							

Major Elective IV

2734604	Logistics and Supply Chain Management
2734605	Strategic Technology Management
2734606	Enterprise Resource Planning

Mechatronics (47)

w.e.f Jul 2015

Semester III						Theory Marks		Tutorial/ Practical Marks				Total Marks
Subject Code	Subject Name	Theory	Tutorial/ Presentation	Practical	Credits	ESE(E)	PA (M)	ESE(V)		PA(I)		
								ESE	OEP	PA	RP	
	Major Elective - IV	3	2#	2	5	70	30	20	10	10	10	150
2730004	Seminar (Presentation + Attendance@ + Preparation of learning material*)#	0	4	0	2	0	0	0	0	100	0	100
2730002	Internal Review\$	0	2	0	1	0	0	0	0	100	0	100
2730003	Dissertation Phase - I (Literature Review, Problem Formulation, Progress and Work Plan)	0	0	20	10	0	0	100	0	0	0	100
	Total Credits				18							

Major Elective IV

2734702	Robotic engineering (Mechatronics)
2734703	Dynamics of Machines

Civil (Town & Country Planning) (48)

w.e.f Jul 2015

Semester III						Theory Marks		Tutorial/ Practical Marks				Total Marks
Subject Code	Subject Name	Theory	Tutorial/ Presentation	Practical	Credits	ESE(E)	PA (M)	ESE(V)		PA(I)		
								ESE	OEP	PA	RP	
	Major Elective - IV	3	2#	2	5	70	30	20	10	10	10	150
2730004	Seminar (Presentation + Attendance@ + Preparation of learning material*)#	0	4	0	2	0	0	0	0	100	0	100
2730002	Internal Review\$	0	2	0	1	0	0	0	0	100	0	100
2730003	Dissertation Phase - I (Literature Review, Problem Formulation, Progress and Work Plan)	0	0	20	10	0	0	100	0	0	0	100
2734805	Training/Internship***	0	0	0	0	0	0	0	0	100	0	100
	Total Credits				18							

Major Elective IV[2734804](#) Politics and Public Policy Planning[2734803](#) Poverty and Development Planning**Mechanical (Advance Manufacturing System) (50)**

w.e.f Jul 2015

Semester III						Theory Marks		Tutorial/ Practical Marks				Total Marks
Subject Code	Subject Name	Theory	Tutorial/ Presentation	Practical	Credits	ESE(E)	PA (M)	ESE(V)		PA(I)		
								ESE	OEP	PA	RP	
	Major Elective - IV	3	2#	2	5	70	30	20	10	10	10	150
2730004	Seminar (Presentation + Attendance@ + Preparation of learning material*)#	0	4	0	2	0	0	0	0	100	0	100
2730002	Internal Review\$	0	2	0	1	0	0	0	0	100	0	100
2730003	Dissertation Phase - I (Literature Review, Problem Formulation, Progress and Work Plan)	0	0	20	10	0	0	100	0	0	0	100
	Total Credits				18							

Major Elective IV[2735005](#) Design and Analysis of experiments[2732805](#) Decision Modelling[2735003](#) Micro and Nano Manufacturing System[2735004](#) Metrology and Computer aided Inspection**Electronics & Communication (Embedded System) (54)**

w.e.f Jul 2015

Semester III						Theory Marks		Tutorial/ Practical Marks				Total Marks
Subject Code	Subject Name	Theory	Tutorial/ Presentation	Practical	Credits	ESE(E)	PA (M)	ESE(V)		PA(I)		
								ESE	OEP	PA	RP	
	Major Elective - IV	3	2#	2	5	70	30	20	10	10	10	150
2730004	Seminar (Presentation + Attendance@ + Preparation of learning material*)#	0	4	0	2	0	0	0	0	100	0	100

2730002	Internal Review\$	0	2	0	1	0	0	0	0	100	0	100
2730003	Dissertation Phase - I (Literature Review, Problem Formulation, Progress and Work Plan)	0	0	20	10	0	0	100	0	0	0	100
	Total Credits				18							

Major Elective IV

2735404	Embedded Wireless Technologies
2735405	Mobile Phone Application Development

ME Computer Engineering (Systems & Network Security)(56)

w.e.f Jul 2015

Semester III						Theory Marks		Tutorial/ Practical Marks				Total Marks
Subject Code	Subject Name	Theory	Tutorial/ Presentation	Practical	Credits	ESE(E)	PA (M)	ESE(V)		PA(I)		
								ESE	OEP	PA	RP	
	Major Elective - IV	3	2#	2	5	70	30	20	10	10	10	150
2730004	Seminar (Presentation + Attendance@ + Preparation of learning material*)#	0	4	0	2	0	0	0	0	100	0	100
2730002	Internal Review\$	0	2	0	1	0	0	0	0	100	0	100
2730003	Dissertation Phase - I (Literature Review, Problem Formulation, Progress and Work Plan)	0	0	20	10	0	0	100	0	0	0	100
	Total Credits				18							

Major Elective IV

2735601	Wireless Security
2735602	Network Defence
2735603	Cloud Security

The concerned faculty member shall provide the list of peer reviewed Journals and Tier-I & Tier-II Conferences relating to the subject (or relating to the area of thesis for seminar) of the students in the beginning of the semester i.e. within 10 days. The same list will be uploaded on GTU website within the first two weeks of the start of the semester. Every student or a group of students shall critically study 2 research papers, integrate the details and make presentation in the last two weeks of the semester. The GTU marks entry portal will allow entry of marks to institutes only after uploading of the best 3 presentations of the students. A unique id number will be generated only after uploading the presentations. Thereafter the entry of marks will be allowed. The best 3 presentations of each college will be uploaded on GTU website.

@ Every student is required to remain present during presentations made by all other students without fail.

* Students are required to prepare teaching material alongwith associated labwork which can bring excitement to learning as a part of the seminar component, in topic of interest relating to any subject including Bachelor's work, as approved by the faculty.

\$ In case thesis is on a patentable idea, the student should study patents relating to his/her field and prepare a patent study and analysis report for 5 such patents. For one of the patents, he should do a complete technical analysis and prepare a presentation explaining the technical part to other students of the class. The PSAR and presentations should be uploaded on GTU website and submitted as a part of the thesis report.

Note: Major Elective – IV, Major Elective – V and Seminar may be conducted on weekends as a special case for the students permitted by the University.

*** The Training / Internship shall be attended by each student for a duration not less than 6-weeks. The same shall be performed at Government/ Semi-government organization only. The institute shall provide all supporting documents for the purpose and application. There shall be institute level examination on the performance of students after the training is accomplished. All the students shall submit report on their learning and presentation of the same to GTU online portal. There shall be no-credit for the same but the exercise is compulsory towards fulfilment of the requirements of award of degree