

# GUJARAT TECHNOLOGICAL UNIVERSITY

(Revised on 12thJan 2015)

## Aeronautical Engineering (01)

### Semester IV

w.e.f Jan'15

Subject code	Subject name	Teaching Scheme (Hours)			Credits	Theory Marks		Tutorial/ Practical Marks		Total Marks	Branch Code
		Theory	Tutorial	Practical		ESE(E)	PA (M)	Viva (V)	PA(I)		
<a href="#">2140003</a>	Engineering Economics and Management	3	0	0	3	70	30	0	0	100	1
<a href="#">2140101</a>	Aircraft Structures I	3	1	0	4	70	30	30	20	150	1
<a href="#">2140103</a>	Aircraft Systems, Instruments and Maintenance	4	2	0	6	70	30	30	20	150	1
<a href="#">2140105</a>	Numerical Methods	3	2	0	5	70	30	30	20	150	1
<a href="#">2140106</a>	Basic Engineering Thermodynamics	4	1	0	5	70	30	30	20	150	1
<a href="#">2140107</a>	Computational fluid dynamics I	3	0	2	5	70	30	30	20	150	1
<a href="#">2140108</a>	Solid and Surface Modelling	0	0	2	2	0	0	80	20	100	1
<a href="#">2140002</a>	Design Engineering - I B	0	0	3	3	0	0	80	20	100	1
	<b>Total</b>	20	6	4	33						

## Automobile Engineering (02)

### Semester IV

w.e.f Jan'15

Subject code	Subject name	Teaching Scheme (Hours)			Credits	Theory Marks		Tutorial/ Practical Marks		Total Marks	Branch Code
		Theory	Tutorial	Practical		ESE(E)	PA (M)	Viva (V)	PA(I)		
<a href="#">2140003</a>	Engineering Economics and Management	3	0	0	3	70	30	0	0	100	2
<a href="#">2140203</a>	Automobile Engines	3	0	2	5	70	30	30	20	150	2
<a href="#">2141901</a>	Mechanical Measurement & Metrology	3	0	2	5	70	30	30	20	150	2
<a href="#">2141905</a>	Complex Variables and Numerical Methods	3	2	0	5	70	30	30	20	150	2
<a href="#">2141906</a>	Fluid Mechanics	4	0	2	6	70	30	30	20	150	2
<a href="#">2141907</a>	Machine Design & Industrial Drafting	4	0	2	6	70	30	30	20	150	2
<a href="#">2140002</a>	Design Engineering - I B	0	0	3	3	0	0	80	20	100	2
	<b>Total</b>	20	2	8	33						

### Biomedical Engineering (03)

**Semester IV**

w.e.f Jan'15

Subject code	Subject name	Teaching Scheme (Hours)			Credits	Theory Marks		Tutorial/ Practical Marks		Total Marks	Branch Code
		Theory	Tutorial	Practical		ESE(E)	PA (M)	Viva (V)	PA(I)		
<a href="#">2141703</a>	Numerical Techniques & Statistical Methods	3	2	0	5	70	30	30	20	150	3
<a href="#">2140304</a>	Microprocessor & its Interfacing	4	0	2	6	70	30	30	20	150	3
<a href="#">2140305</a>	Analog Circuits-II	4	0	2	6	70	30	30	20	150	3
<a href="#">2140306</a>	Biosensors & Transducers	4	0	2	6	70	30	30	20	150	3
<a href="#">2140307</a>	Control System and Analysis	3	0	2	5	70	30	30	20	150	3
<a href="#">2140308</a>	Mini Project 1/Internship/RA/TA	0	0	2	2	0	0	80	20	100	3
<a href="#">2140002</a>	Design Engineering - I B	0	0	3	3	0	0	80	20	100	3
	<b>Total</b>	18	2	10	33						

### Bio-Technology(04)

**Semester IV**

w.e.f Jan'15

Subject code	Subject name	Teaching Scheme (Hours)			Credits	Theory Marks		Marks		Total Marks	Branch Code
		Theory	Tutorial	Practical		ESE(E)	PA (M)	Viva (V)	PA(I)		
<a href="#">2140003</a>	Engineering Economics and Management	3	0	0	3	70	30	0	0	100	4
<a href="#">2140401</a>	Molecular Biology and Genetics	3	0	2	5	70	30	30	20	150	4
<a href="#">2140402</a>	Basic Taxonomy and Techniques	2	0	2	4	70	30	30	20	150	4
<a href="#">2140403</a>	Principles of Process Engineering-I	3	0	3	6	70	30	30	20	150	4
<a href="#">2140405</a>	Cell Biology and Industrial Biotechnology	4	0	3	7	70	30	30	20	150	4
<a href="#">2140406</a>	Stoichiometry	3	2	0	5	70	30	30	20	150	4
<a href="#">2140002</a>	Design Engineering - I B	0	0	3	3	0	0	80	20	100	4
	<b>Total</b>	18	2	10	33						

### Chemical Engineering (05)

Semester IV

w.e.f Jan'15

Subject code	Subject name	Teaching Scheme (Hours)			Credits	Theory Marks		Marks		Total Marks	Branch Code
		Theory	Tutorial	Practical		ESE(E)	PA (M)	Viva (V)	PA(I)		
<a href="#">2140003</a>	Engineering Economics and Management	3	0	0	3	70	30	0	0	100	5
<a href="#">2140501</a>	Physical And Inorganic Chemistry	3	0	4	7	70	30	30	20	150	5
<a href="#">2140502</a>	Chemical Engineering Thermodynamics - I	3	1	0	4	70	30	30	20	150	5
<a href="#">2140503</a>	Process Heat Transfer	3	0	3	6	70	30	30	20	150	5
<a href="#">2140505</a>	Chemical Engineering Maths	3	2	0	5	70	30	30	20	150	5
<a href="#">2140506</a>	Chemical Process Industries -II	3	0	2	5	70	30	30	20	150	5
<a href="#">2140002</a>	Design Engineering - I B	0	0	3	3	0	0	80	20	100	5
	<b>Total</b>	18	3	9	33						

### Civil Engineering (06)

Semester IV

w.e.f Jan'15

Subject code	Subject name	Teaching Scheme (Hours)			Credits	Theory Marks		Marks		Total Marks	Branch Code
		Theory	Tutorial	Practical		ESE(E)	PA (M)	Viva (V)	PA(I)		
<a href="#">2140003</a>	Engineering Economics and Management	3	0	0	3	70	30	0	0	100	6
<a href="#">2140601</a>	Advanced Surveying	3	0	2	5	70	30	30	20	150	6
<a href="#">2140603</a>	Structural Analysis-I	4	2	0	6	70	30	30	20	150	6
<a href="#">2140606</a>	Numerical and Statistical Methods for Civil Engineering	3	2	0	5	70	30	30	20	150	6
<a href="#">2140607</a>	Buliding & Town Planning	4	0	2	6	70	30	30	20	150	6
<a href="#">2140608</a>	Concrete Technology	3	0	2	5	70	30	30	20	150	6
<a href="#">2140002</a>	Design Engineering - I B	0	0	3	3	0	0	80	20	100	19
	<b>Total</b>	20	4	6	33						

**Computer Engineering (07), Computer Sceince & Engineering (31)**

**Semester IV**

w.e.f Jan'15

Subject code	Subject name	Teaching Scheme (Hours)			Credits	Theory Marks		Marks		Total Marks	Branch Code
		Theory	Tutorial	Practical		ESE(E)	PA (M)	Viva (V)	PA(I)		
<a href="#">2140702</a>	Operating System	4	0	2	6	70	30	30	20	150	7, 31
<a href="#">2140705</a>	Object Oriented Programming With C++	4	0	4	8	70	30	30	20	150	7, 31
<a href="#">2140706</a>	Numerical and Statistical Methods for Computer Engineering	3	0	2	5	70	30	30	20	150	7, 31
<a href="#">2140707</a>	Computer Organization	4	1	0	5	70	30	30	20	150	7, 31
<a href="#">2140709</a>	Computer Networks	4	0	2	6	70	30	30	20	150	7, 31
<a href="#">2140002</a>	Design Engineering - I B	0	0	3	3	0	0	80	20	100	7, 31
	<b>Total</b>	19	1	13	33						

**Electrical & Electronics Engineering (08)**

**Semester IV**

w.e.f Jan'15

Subject code	Subject name	Teaching Scheme (Hours)			Credits	Theory Marks		Marks		Total Marks	Branch Code
		Theory	Tutorial	Practical		ESE(E)	PA (M)	Viva (V)	PA(I)		
<a href="#">2141002</a>	Analog Circuit Design	4	0	2	6	70	30	30	20	150	8
<a href="#">2141006</a>	Simulation and Design Tools	0	0	2	2	0	0	80	20	100	8
<a href="#">2140910</a>	Digital Electronics	3	0	2	5	70	30	30	20	150	8
<a href="#">2140906</a>	AC Machines	4	0	2	6	70	30	0	0	100	8
<a href="#">2140908</a>	Electrical Power Generation	4	0	2	6	70	30	30	20	150	8
<a href="#">2140909</a>	Field Theory	3	2	0	5	70	30	30	20	150	8
<a href="#">2140002</a>	Design Engineering - I B	0	0	3	3	0	0	80	20	100	8
	<b>Total</b>	18	2	10	33						

### Electrical Engineering (09)

Semester IV

w.e.f Jan'15

Subject code	Subject name	Teaching Scheme (Hours)			Credits	Theory Marks		Tutorial/ Practical		Total Marks	Branch Code
		Theory	Tutorial	Practical		ESE(E)	PA (M)	Viva (V)	PA(I)		
<a href="#">2140910</a>	Digital Electronics	3	0	2	5	70	30	30	20	150	9
<a href="#">2140906</a>	AC Machines	4	0	2	6	70	30	30	20	150	9
<a href="#">2140907</a>	Applied Thermal and Hydraulic Engineering	3	0	0	3	70	30	0	0	100	9
<a href="#">2140908</a>	Electrical Power Generation	4	0	2	6	70	30	30	20	150	9
<a href="#">2140909</a>	Field Theory	3	2	0	5	70	30	30	20	150	9
<a href="#">2141005</a>	Signals and Systems	3	0	2	5	70	30	30	20	150	9
<a href="#">2140002</a>	Design Engineering - I B	0	0	3	3	0	0	80	20	100	9
	<b>Total</b>	20	2	8	33						

### Electronics Engineering (10)

Semester IV

w.e.f Jan'15

Subject code	Subject name	Teaching Scheme (Hours)			Credits	Theory Marks		Marks		Total Marks	Branch Code
		Theory	Tutorial	Practical		ESE(E)	PA (M)	Viva (V)	PA(I)		
<a href="#">2141001</a>	Microprocessor and Interfacing	3	0	2	5	70	30	30	20	150	10
<a href="#">2141002</a>	Analog Circuit Design	4	0	2	6	70	30	30	20	150	10
<a href="#">2141003</a>	Electronics Measurement and Instruments	3	0	2	5	70	30	30	20	150	10
<a href="#">2141004</a>	Control System Engineering	4	0	2	6	70	30	30	20	150	10
<a href="#">2141005</a>	Signals and Systems	3	0	2	5	70	30	30	20	150	10
<a href="#">2141006</a>	Simulation and Design Tools	0	0	2	2	0	0	80	20	100	10
<a href="#">2140002</a>	Design Engineering - I B	0	0	3	3	0	0	80	20	100	10
	<b>Total</b>	17	0	12	32						

**Electronics & Communication Engineering (11), Electronics & Telecommunication Engineering (12)**

**Semester IV**

w.e.f Jan'15

Subject code	Subject name	Teaching Scheme (Hours)			Credits	Theory Marks		Marks		Total Marks	Branch Code
		Theory	Tutorial	Practical		ESE(E)	PA (M)	Viva (V)	PA(I)		
<a href="#">2141001</a>	Microprocessor and Interfacing	3	0	2	5	70	30	30	20	150	11, 12
<a href="#">2141002</a>	Analog Circuit Design	4	0	2	6	70	30	30	20	150	11, 12
<a href="#">2141003</a>	Electronics Measurement and Instrumentation	3	0	2	5	70	30	30	20	150	11, 12
<a href="#">2141004</a>	Control System Engineering	4	0	2	6	70	30	30	20	150	11, 12
<a href="#">2141005</a>	Signals and Systems	3	0	2	5	70	30	30	20	150	11, 12
<a href="#">2141006</a>	Simulation and Design Tools	0	0	2	2	0	0	80	20	100	11, 12
<a href="#">2140002</a>	Design Engineering - I B	0	0	3	3	0	0	80	20	100	11, 12
	<b>Total</b>	17	0	12	32						

**Environmental Engineering (13), Environmental Science & Engineering(37)**

**Semester IV**

w.e.f Jan'15

Subject code	Subject name	Teaching Scheme (Hours)			Credits	Theory Marks		Marks		Total Marks	Branch Code
		Theory	Tutorial	Practical		ESE(E)	PA (M)	Viva (V)	PA(I)		
<a href="#">2140003</a>	Engineering Economics and Management	3	0	0	3	70	30	0	0	100	13, 37
<a href="#">2141302</a>	Environmental Sciences II	3	0	4	7	70	30	30	20	150	13, 37
<a href="#">2141305</a>	Ecology and Remote Sensing	3	2	0	5	70	30	30	20	150	13, 37
<a href="#">2141306</a>	Elements of Chemical Engg	3	2	0	5	70	30	30	20	150	13, 37
<a href="#">2141307</a>	Basics of Environmental Hydraulics	3	2	0	5	70	30	30	20	150	13, 37
<a href="#">2141308</a>	Environmental Resources	3	2	0	5	70	30	30	20	150	13, 37
<a href="#">2140002</a>	Design Engineering - I B	0	0	3	3	0	0	80	20	100	13, 37
	<b>Total</b>	18	8	4	33						

### Food Processing & Technology (14)

Semester IV

w.e.f Jan'15

Subject code	Subject name	Teaching Scheme (Hours)			Credits	Theory Marks		Marks		Total Marks	Branch Code
		Theory	Tutorial	Practical		ESE(E)	PA (M)	Viva (V)	PA(I)		
<a href="#">2140003</a>	Engineering Economics & Management	3	0	0	3	70	30	0	0	100	14
<a href="#">2141401</a>	Food Nutrition & Biochemistry	3	0	2	5	70	30	30	20	150	14
<a href="#">2141402</a>	Food & Industrial Microbiology	3	0	2	5	70	30	30	20	150	14
<a href="#">2141403</a>	Materials & Manufacture of Food Equipment	4	0	2	6	70	30	30	20	150	14
<a href="#">2141406</a>	Food Engineering Transport Phenomenon	4	0	2	6	70	30	30	20	150	14
<a href="#">2141407</a>	Food Drying & Dehydration	3	0	2	5	70	30	30	20	150	14
<a href="#">2140002</a>	Design Engineering - I B	0	0	3	3	0	0	80	20	100	14
	<b>Total</b>	20	0	10	33						

### Industrial Engineering (15)

Semester IV

w.e.f Jan'15

Subject code	Subject name	Teaching Scheme (Hours)			Credits	Theory Marks		Marks		Total Marks	Branch Code
		Theory	Tutorial	Practical		ESE(E)	PA (M)	Viva (V)	PA(I)		
<a href="#">2140003</a>	Engineering Economics and Management	3	0	0	3	70	30	0	0	100	15
<a href="#">2141901</a>	Mechanical Measurement & Metrology	3	0	2	5	70	30	30	20	150	15
<a href="#">2141905</a>	Complex Variables and Numerical Methods	3	2	0	5	70	30	30	20	150	15
<a href="#">2141906</a>	Fluid Mechanics	4	0	2	6	70	30	30	20	150	15
<a href="#">2141907</a>	Machine Design & Industrial Drafting	4	0	2	6	70	30	30	20	150	15
<a href="#">2141908</a>	Manufacturing Processes -II	3	0	2	5	70	30	30	20	150	15
<a href="#">2140002</a>	Design Engineering - I B	0	0	3	3	0	0	80	20	100	15
	<b>Total</b>	20	2	11	33						

### Information Technology (16)

Semester IV

w.e.f Jan'15

Subject code	Subject name	Teaching Scheme (Hours)			Credits	Theory Marks		Marks		Total Marks	Branch Code
		Theory	Tutorial	Practical		ESE(E)	PA (M)	Viva (V)	PA(I)		
<a href="#">2140702</a>	Operating System	4	0	2	6	70	30	30	20	150	16
<a href="#">2140705</a>	Object Oriented Programming With C++	4	0	4	8	70	30	30	20	150	16
<a href="#">2140706</a>	Numerical and Statistical Methods for Computer Engineering	3	0	2	5	70	30	30	20	150	16
<a href="#">2140707</a>	Computer Organization	4	1	0	5	70	30	30	20	150	16
<a href="#">2140709</a>	Computer Networks	4	0	2	6	70	30	30	20	150	16
<a href="#">2140002</a>	Design Engineering - I B	0	0	3	3	0	0	80	20	100	16
	<b>Total</b>	19	1	13	33						

### Instrumentation & Control Engineering (17)

Semester IV

w.e.f Jan'15

Subject code	Subject name	Teaching Scheme (Hours)			Credits	Theory Marks		Marks		Total Marks	Branch Code
		Theory	Tutorial	Practical		ESE(E)	PA (M)	Viva (V)	PA(I)		
<a href="#">2141703</a>	Numerical Techniques & Statistical Methods	3	2	0	5	70	30	30	20	150	17
<a href="#">2141708</a>	Control System	4	0	2	6	70	30	30	20	150	17
<a href="#">2141704</a>	Measurement & Instruments	4	0	2	6	70	30	0	0	100	17
<a href="#">2141705</a>	Industrial Measurement I	3	0	2	5	70	30	30	20	150	17
<a href="#">2141706</a>	Analog Signal Processing	4	0	2	6	70	30	30	20	150	17
<a href="#">2141006</a>	Simulation and Design Tools	0	0	2	2	0	0	80	20	100	17
<a href="#">2140002</a>	Design Engineering - I B	0	0	3	3	0	0	80	20	100	17
	<b>Total</b>	18	2	10	33						



### Mechanical Engineering (19)

Semester IV

w.e.f Jan'15

Subject code	Subject name	Teaching Scheme (Hours)			Credits	Theory Marks		Marks		Total Marks	Branch Code
		Theory	Tutorial	Practical		ESE(E)	PA (M)	Viva (V)	PA(I)		
<a href="#">2140003</a>	Engineering Economics and Management	3	0	0	3	70	30	0	0	100	19
<a href="#">2141901</a>	Mechanical Measurement & Metrology	3	0	2	5	70	30	30	20	150	19
<a href="#">2141905</a>	Complex Variables and Numerical Methods	3	2	0	5	70	30	30	20	150	19
<a href="#">2141906</a>	Fluid Mechanics	4	0	2	6	70	30	30	20	150	19
<a href="#">2141907</a>	Machine Design & Industrial Drafting	4	0	2	6	70	30	30	20	150	19
<a href="#">2141908</a>	Manufacturing Processes -II	3	0	2	5	70	30	30	20	150	19
<a href="#">2140002</a>	Design Engineering - I B	0	0	3	3	0	0	80	20	100	19
	<b>Total</b>	20	2	11	33						

### Mechatronics Engineering (20)

Semester IV

w.e.f Jan'15

Subject code	Subject name	Teaching Scheme (Hours)			Credits	Theory Marks		Marks		Total Marks	Branch Code
		Theory	Tutorial	Practical		ESE(E)	PA (M)	Viva (V)	PA(I)		
<a href="#">2140003</a>	Engineering Economics and Management	3	0	0	3	70	30	0	0	100	20
<a href="#">2141905</a>	Complex Variable and Numerical Methods	3	2	0	5	70	30	30	20	150	20
<a href="#">2142001</a>	Kinematics & Dynamics of Machines	4	0	2	6	70	30	30	20	150	20
<a href="#">2142003</a>	Control Theory	4	0	2	6	70	30	30	20	150	20
<a href="#">2142004</a>	Engineering Thermodynamics	4	1	0	5	70	30	30	20	150	20
<a href="#">2142005</a>	Programming Methodology using C++	3	0	2	5	70	30	30	20	150	20
<a href="#">2140002</a>	Design Engineering - I B	0	0	3	3	0	0	80	20	100	20
	<b>Total</b>	21	3	6	33						

### Metallurgy Engineering (21)

Semester IV

w.e.f Jan'15

Subject code	Subject name	Teaching Scheme (Hours)			Credits	Theory Marks		Marks		Total Marks	Branch Code
		Theory	Tutorial	Practical		ESE(E)	PA (M)	Viva (V)	PA(I)		
<a href="#">2140003</a>	Engineering Economics and Management	3	0	0	3	70	30	0	0	100	21
<a href="#">2141907</a>	Machine Design & Industrial Drafting	4	0	2	6	70	30	30	20	150	21
<a href="#">2142102</a>	Principles of Extractive Metallurgy	4	1	0	5	70	30	30	20	150	21
<a href="#">2142105</a>	Heat and Mass Transfer in Metallurgy	4	0	2	6	70	30	30	20	150	21
<a href="#">2142106</a>	Plastic Deformation of Metals	3	1	0	4	70	30	30	20	150	21
<a href="#">2142107</a>	Iron Making	4	0	2	6	70	30	30	20	150	21
<a href="#">2140002</a>	Design Engineering -I B	0	0	3	3	0	0	80	20	100	21
		21	3	6	33						

### Mining Engineering (22)

Semester IV

w.e.f Jan'15

Subject code	Subject name	Teaching Scheme (Hours)			Credits	Theory Marks		Marks		Total Marks	Branch Code
		Theory	Tutorial	Practical		ESE(E)	PA (M)	Viva (V)	PA(I)		
<a href="#">2140003</a>	Engineering Economics and Management	3	0	0	3	70	30	0	0	100	22
<a href="#">2142201</a>	Mining Machinery-I	4	0	2	6	70	30	30	20	150	22
<a href="#">2142202</a>	Basic Mine Surveying	2	0	4	6	70	30	30	20	150	22
<a href="#">2142203</a>	Geology-II	3	0	2	5	70	30	30	20	150	22
<a href="#">2142206</a>	Surface Mine Production	3	0	2	5	70	30	30	20	150	22
<a href="#">2140001</a>	Mathematics-4	3	2	0	5	70	30	30	20	150	22
<a href="#">2140002</a>	Design Engineering - I B	0	0	3	3	0	0	80	20	100	22
	<b>Total</b>	18	2	10	33						

### Plastic Technology (23)

Semester IV

w.e.f Jan'15

Subject code	Subject name	Teaching Scheme (Hours)			Credits	Theory Marks		Marks		Total Marks	Branch Code
		Theory	Tutorial	Practical		ESE(E)	PA (M)	Viva (V)	PA(I)		
<a href="#">2140003</a>	Engineering Economics and Management	3	0	0	3	70	30	0	0	100	23
<a href="#">2142301</a>	Basic Plastic Processing and Thermal Engineering	3	0	3	6	70	30	30	20	150	23
<a href="#">2142302</a>	Industrial Hydraulics and Pneumatics	3	0	3	6	70	30	30	20	150	23
<a href="#">2142303</a>	Entrepreneurship And Creativity in Plastic Engineering	3	0	2	5	70	30	30	20	150	23
<a href="#">2142305</a>	Applied Mathematics in Plastic Industry	3	2	0	5	70	30	30	20	150	23
<a href="#">2142306</a>	Manufacturing of plastics Material-2	3	0	2	5	70	30	30	20	150	23
<a href="#">2140002</a>	Design Engineering - I B	0	0	3	3	0	0	80	20	100	23
	<b>Total</b>	18	2	10	33						

### Power Electronics (24)

Semester IV

w.e.f Jan'15

Subject code	Subject name	Teaching Scheme (Hours)			Credits	Theory Marks		Marks		Total Marks	Branch Code
		Theory	Tutorial	Practical		ESE(E)	PA (M)	Viva (V)	PA(I)		
<a href="#">2140906</a>	AC Machines	4	0	2	6	70	30	30	20	150	24
<a href="#">2140909</a>	Field Theory	3	2	0	5	70	30	30	20	150	24
<a href="#">2141005</a>	Signals and Systems	3	0	2	5	70	30	30	20	150	24
<a href="#">2142404</a>	Basic Power Systems	3	0	0	3	70	30	30	20	150	24
<a href="#">2142405</a>	Analog Electronics and Its Applications	4	0	2	6	70	30	30	20	150	24
<a href="#">2142406</a>	Digital Electronics and its applications	3	0	2	5	70	30	30	20	150	24
<a href="#">2140002</a>	Design Engineering - I B	0	0	3	3	0	0	80	20	100	24
	<b>Total</b>	20	2	8	33						

### Production (25)

Semester IV

w.e.f Jan'15

Subject code	Subject name	Teaching Scheme (Hours)			Credits	Theory Marks		Marks		Total Marks	Branch Code
		Theory	Tutorial	Practical		ESE(E)	PA (M)	Viva (V)	PA(I)		
<a href="#">2140003</a>	Engineering Economics and Management	3	0	0	3	70	30	0	0	100	25
<a href="#">2141906</a>	Fluid Mechanics	4	0	2	6	70	30	30	20	150	25
<a href="#">2142503</a>	Metrology and Measurement	3	0	2	5	70	30	30	20	150	25
<a href="#">2142504</a>	Theory of Machines	3	2	0	5	70	30	30	20	150	25
<a href="#">2142505</a>	Probability and Introduction to Statistics	3	2	0	5	70	30	30	20	150	25
<a href="#">2142506</a>	Fundamentals of Machine Design	4	2	0	6	70	30	30	20	150	25
<a href="#">2140002</a>	Design Engineering – I B	0	0	3	3	0	0	80	20	100	25
	<b>Total</b>	20	6	7	33						

### Rubber Technology (26)

Semester IV

w.e.f Jan'15

Subject code	Subject name	Teaching Scheme (Hours)			Credits	Theory Marks		Marks		Total Marks	Branch Code
		Theory	Tutorial	Practical		ESE(E)	PA (M)	Viva (V)	PA(I)		
<a href="#">2140003</a>	Engineering Economics and Management	3	0	0	3	70	30	0	0	100	26
<a href="#">2142601</a>	Rubber Compounding Materials	3	0	3	6	70	30	30	20	150	26
<a href="#">2142602</a>	Natural Rubber Science & Technology	3	0	3	6	70	30	30	20	150	26
<a href="#">2142603</a>	Rubber engineering	3	0	2	5	70	30	30	20	150	26
<a href="#">2142605</a>	Latex Technology	3	0	2	5	70	30	30	20	150	26
<a href="#">2142606</a>	Viscoelasticity of Elastomers	3	2	0	5	70	30	30	20	150	26
<a href="#">2140002</a>	Design Engineering -I B	0	0	3	3	0	0	80	20	100	26
		21	3	6	33						

### Textile Processing (28)

**Semester IV**

w.e.f Jan'15

Subject code	Subject name	Teaching Scheme (Hours)			Credits	Theory Marks		Marks		Total Marks	Branch Code
		Theory	Tutorial	Practical		ESE(E)	PA (M)	Viva (V)	PA(I)		
<a href="#">2140003</a>	Engineering Economics and Management	3	0	0	3	70	30	0	0	100	28
<a href="#">2142806</a>	Textile Manufacturing - II	3	0	2	5	70	30	30	20	150	28
<a href="#">2142807</a>	Polymer Chemistry	4	0	2	6	70	30	30	20	150	28
<a href="#">2142808</a>	Scouring & Bleaching - I	4	0	3	7	70	30	30	20	150	28
<a href="#">2142809</a>	Chemistry of Intermediates & Dyes	4	0	0	4	70	30	0	0	100	28
<a href="#">2142810</a>	Process Calculations in Textile Wet Processing	3	2	0	5	70	30	30	20	150	28
<a href="#">2140002</a>	Design Engineering - I B	0	0	3	3	0	0	80	20	100	28
	<b>Total</b>	21	2	7	33						

### Textile Technology (29)

**Semester IV**

w.e.f Jan'15

Subject code	Subject name	Teaching Scheme (Hours)			Credits	Theory Marks		Marks		Total Marks	Branch Code
		Theory	Tutorial	Practical		ESE(E)	PA (M)	Viva (V)	PA(I)		
<a href="#">2140003</a>	Engineering Economics and Management	3	0	0	3	70	30	0	0	100	29
<a href="#">2142901</a>	Yarn Manufacturing - II	4	0	2	6	70	30	30	20	150	29
<a href="#">2142902</a>	Weaving Technology-I	4	0	4	8	70	30	30	20	150	29
<a href="#">2142903</a>	Textile Processing-II	3	0	2	5	70	30	30	20	150	29
<a href="#">2142904</a>	Fibre Physics	3	0	0	3	70	30	0	0	100	29
<a href="#">2142905</a>	Statistical Quality Control & Textile Costing	3	2	0	5	70	30	30	20	150	29
<a href="#">2140002</a>	Design Engineering - I B	0	0	3	3	0	0	80	20	100	29
	<b>Total</b>	20	2	8	33						

### Information & Communication Technology (32)

**Semester IV**

w.e.f Jan'15

Subject code	Subject name	Teaching Scheme (Hours)			Credits	Theory Marks		Tutorial/ Practical Marks		Total Marks	Branch Code
		Theory	Tutorial	Practical		ESE(E)	PA (M)	Viva (V)	PA(I)		
<a href="#">2140702</a>	Operating System	4	0	2	6	70	30	30	20	150	32
<a href="#">2140705</a>	Object Oriented Programming With C++	4	0	4	8	70	30	30	20	150	32
<a href="#">2140706</a>	Numerical and Statistical Methods for Computer Engineering	3	0	2	5	70	30	30	20	150	32
<a href="#">2140707</a>	Computer Organization	4	1	0	5	70	30	30	20	150	32
<a href="#">2140709</a>	Computer Networks	4	0	2	6	70	30	30	20	150	32
<a href="#">2140002</a>	Design Engineering - I B	0	0	3	3	0	0	80	20	100	32
	<b>Total</b>	19	1	10	33						

### Manufacturing Engineering(34)

**Semester IV**

w.e.f Jan'15

Subject code	Subject name	Teaching Scheme (Hours)			Credits	Theory Marks		Marks		Total Marks	Branch Code
		Theory	Tutorial	Practical		ESE(E)	PA (M)	Viva (V)	PA(I)		
<a href="#">2140003</a>	Engineering Economic and Management	3	0	0	3	70	30	0	0	100	34
<a href="#">2142504</a>	Theory of Machines	3	2	0	5	70	30	30	20	150	34
<a href="#">2143402</a>	Metrology and Computer Aided Inspection	3	0	2	5	70	30	30	20	150	34
<a href="#">2141906</a>	Fluid Mechanics	4	0	2	6	70	30	30	20	150	34
<a href="#">2142506</a>	Fundamentals of Machine Design	4	2	0	6	70	30	30	20	150	34
<a href="#">2143406</a>	Thermo Dynamics and Thermal Eng.	3	0	2	5	70	30	30	20	150	34
<a href="#">2140002</a>	Design Engineering - I B	0	0	3	3	0	0	80	20	100	34
	<b>Total</b>	20	4	6	33						

### Chemical Technology(36)

Semester IV

w.e.f Jan'15

Subject code	Subject name	Teaching Scheme (Hours)			Credits	Theory Marks		Marks		Total Marks	Branch Code
		Theory	Tutorial	Practical		ESE(E)	PA (M)	Viva (V)	PA(I)		
<a href="#">2140003</a>	Engineering Economics & Management	3	0	0	3	70	30	0	0	100	36
<a href="#">2143607</a>	Unit Processes in Organic Synthesis	3	0	3	6	70	30	30	20	150	36
<a href="#">2143608</a>	Mechanical Operations in Chemical Process Industries	3	1	2	6	70	30	30	20	150	36
<a href="#">2143606</a>	Advanced Organic Chemistry for Technologists	3	0	3	6	70	30	30	20	150	36
<a href="#">2143609</a>	Industrial Pollution & Control	3	0	2	5	70	30	30	20	150	36
	Department Elective-II	4	0	0	4	70	30	0	0	100	36
<a href="#">2140002</a>	Design Engineering - I B	0	0	3	3	0	0	80	20	100	36
	<b>Total</b>	19	1	10	33						

#### Department Elective- II

Code	Name of the subject
<a href="#">2143601</a>	Medicinal Chemistry & Physio-pharmacology
<a href="#">2143602</a>	Rubber Chemistry & Natural Polymers
<a href="#">2143603</a>	Introduction to Glass & Ceramic Technology-II
<a href="#">2143604</a>	Chemistry of Intermediates & Colorants-II

### Nano Technology (39)

Semester IV

w.e.f Jan'15

Subject code	Subject name	Teaching Scheme (Hours)			Credits	Theory Marks		Tutorial/ Practical		Total Marks	Branch Code
		Theory	Tutorial	Practical		ESE(E)	PA (M)	Viva (V)	PA(I)		
<a href="#">2140001</a>	Mathematics-4	3	2	0	5	70	30	30	20	150	39
<a href="#">2140003</a>	Engineering Economics and Management	3	0	0	3	70	30	0	0	100	39
<a href="#">2143902</a>	Physics of Nanomaterials	3	0	0	3	70	30	0	0	100	39
<a href="#">2143903</a>	Elements of Material Science	3	0	2	5	70	30	30	20	150	39
<a href="#">2143904</a>	Synthesis of Nanomaterials-II	2	0	6	8	70	30	30	20	150	39
<a href="#">2143905</a>	Characterization of Nanomaterials-II	2	0	4	6	70	30	30	20	150	39
<a href="#">2140002</a>	Design Engineering - I B	0	0	3	3	0	0	80	20	100	39
	<b>Total</b>	16	2	12	33						