

GUJARAT TECHNOLOGICAL UNIVERSITY
3rd Semester BE
BE 3rd Semester Exam Scheme & Subject Code (w.e.f. 2014-15)

Semester III

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)		
2130002	Advanced Engineering Mathematics	3	2	0	5	70	30	30	20	150	1
2130003	Mechanics of Solids	4	0	2	6	70	30	30	20	150	1
2130101	Fundamentals of Fluid Mechanics	3	0	2	5	70	30	30	20	150	1
2130103	Analysis Of Mechanisms & Machine Elements	3	2	0	5	70	30	30	20	150	1
2130105	Electrical Machines & Electronics	3	1	0	4	70	30	30	20	150	1
2130106	Aircraft Science and Manufacturing Processes	3	0	2	5	70	30	30	20	150	1
2130005	Design Engineering - I A	0	0	3	3	0	0	80	20	100	1
	Total	19	5	9	33						

Semester III

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)		
2130002	Advanced Engineering Mathematics	3	2	0	5	70	30	30	20	150	2
2130003	Mechanics of Solid	4	0	2	6	70	30	30	20	150	2
2131903	Manufacturing Process-1	3	0	2	5	70	30	30	20	150	2
2131904	Material Science and Metallurgy	3	0	2	5	70	30	30	20	150	2
2131905	Engineering Thermodynamics	4	1	0	5	70	30	30	20	150	2
2131906	Kinematics of Machines	3	1	0	4	70	30	30	20	150	2
2130005	Design Engineering - I A	0	0	3	3	0	0	80	20	100	2
	Total	20	4	6	33						

Semester III

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)		
2130002	Advanced Engineering Mathematics	3	2	0	5	70	30	30	20	150	4
2130003	Mechanics of solids	4	0	2	6	70	30	30	20	150	4
2130401	Introductory Biology	3	0	0	3	70	30	0	0	100	4
2130403	Basic Biochemistry	3	0	3	6	70	30	30	20	150	4
2130404	Fundamentals of Organic Chemistry	3	0	3	6	70	30	30	20	150	4
2130405	Thermodynamics	3	1	0	4	70	30	30	20	150	4
2130005	Design Engineering - I A	0	0	3	3	0	0	80	20	100	4
	Total	19	3	8	33						

Semester III

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)		
2130002	Advanced Engineering Mathematics	3	2	0	5	70	30	30	20	150	5
2130003	Mechanics of Solids	4	0	2	6	70	30	30	20	150	5
2130501	Organic Chemistry and Unit Processes	3	0	2	5	70	30	30	20	150	5
2130502	Fluid Flow Operation	3	0	2	5	70	30	30	20	150	5
2130504	Process Calculation	3	1	0	4	70	30	30	20	150	5
2130505	Chemical Process Industries-1	3	0	2	5	70	30	30	20	150	5
2130005	Design Engineering - I A	0	0	3	3	0	0	80	20	100	5
	Total	19	3	8	33						

Semester III

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)		
2130002	Advanced Engineering Mathematics	3	2	0	5	70	30	30	20	150	6
2130003	Mechanics of Solids	4	0	2	6	70	30	30	20	150	6
2130601	Surveying	3	0	2	5	70	30	30	20	150	6
2130602	Fluid Mechanics	3	0	2	5	70	30	30	20	150	6
2130606	Geotechnics & Applied Geology	4	0	1	5	70	30	30	20	150	6
2130607	Building Construction	3	1	0	4	70	30	30	20	150	6
2130005	Design Engineering - I A	0	0	3	3	0	0	80	20	100	6
	Total	20	3	7	33						

Semester III

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)		
2130002	Advanced Engineering Mathematics	3	2	0	5	70	30	30	20	150	7, 31
2130004	Engineering Economics and Management	3	0	0	3	70	30	0	0	100	7, 31
2130702	Data Structure	4	0	4	8	70	30	30	20	150	7, 31
2130703	Database Management Systems	4	0	4	8	70	30	30	20	150	7, 31
2131004	Digital Electronics	4	0	2	6	70	30	30	20	150	7, 31
2130005	Design Engineering - I A	0	0	3	3	0	0	80	20	100	7, 31
	Total	18	2	10	33						

Semester III

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)		
2130002	Advance Engineering Mathematics	3	2	0	5	70	30	30	20	150	8
2130004	Engineering Economics and Management	3	0	0	3	70	30	0	0	100	8
2130901	Circuits and Networks	4	0	2	6	70	30	30	20	150	8
2130902	Analog Electronics	3	0	2	5	70	30	30	20	150	8
2130903	Electrical Measurement and Measuring Instruments	3	0	2	5	70	30	30	20	150	8
2130904	DC Machines and Transformer	4	0	2	6	70	30	30	20	150	8
2130005	Design Engineering - I A	0	0	3	3	0	0	80	20	100	8
	Total	20	2	8	33						

Semester III

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)		
2130002	Advance Engineering Mathematics	3	2	0	5	70	30	30	20	150	9
2130004	Engineering Economics and Management	3	0	0	3	70	30	0	0	100	9
2130901	Circuits & Networks	4	0	2	6	70	30	30	20	150	9
2130902	Analog Electronics	3	0	2	5	70	30	30	20	150	9
2130903	Electrical Measurement and Measuring Instruments	3	0	2	5	70	30	30	20	150	9
2130904	DC Machines and Transformer	4	0	2	6	70	30	30	20	150	9
2130005	Design Engineering - I A	0	0	3	3	0	0	80	20	100	9
	Total	20	2	8	33						

Semester III

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)		
2130002	Advance Engineering Mathematics	3	2	0	5	70	30	30	20	150	10
2130004	Engineering Economics and Management	3	0	0	3	70	30	0	0	100	10
2130901	Circuits and Networks	4	0	2	6	70	30	30	20	150	10
2131004	Digital Electronics	4	0	2	6	70	30	30	20	150	10
2131005	Electrical Machines	3	0	2	5	70	30	30	20	150	10
2131006	Electronic Devices and Circuits	4	0	2	6	70	30	30	20	150	10
2130005	Design Engineering - I A	0	0	3	3	0	0	80	20	100	10
	Total	21	2	8	34						

Semester III

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)		
2130002	Advanced Engineering Mathematics	3	2	0	5	70	30	30	20	150	11, 12
2130004	Engineering Economics and Management	3	0	0	3	70	30	0	0	100	11, 12
2130901	Circuits and Networks	4	0	2	6	70	30	30	20	150	11, 12
2131004	Digital Electronics	4	0	2	6	70	30	30	20	150	11, 12
2131005	Electrical Machines	3	0	2	5	70	30	30	20	150	11, 12
2131006	Electronics Devices & Circuits	4	0	2	6	70	30	30	20	150	11, 12
2130005	Design Engineering - I A	0	0	3	3	0	0	80	20	100	11, 12
	Total	21	2	8	34						

Semester III

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)		
2130002	Advanced Engineering Mathematics	3	2	0	5	70	30	30	20	150	13, 37
2130003	Mechanics of Solids	4	0	2	6	70	30	30	20	150	13, 37
2131301	Environmental Sciences I	4	0	4	8	70	30	30	20	150	13, 37
2131302	Environmental Microbiology & Bioremediation	4	2	0	6	70	30	30	20	150	13, 37
2131304	Chemical Engg Processes	3	2	0	5	70	30	30	20	150	13, 37
2130005	Design Engineering - I A	0	0	3	3	0	0	80	20	100	13, 37
	Total	18	6	6	33						

Semester III

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)		
2130002	Advanced Engineering Mathematics	3	2	0	5	70	30	30	20	150	14
2130003	Mechanics of Solids	4	0	2	6	70	30	30	20	150	14
2131404	Food Engineering Thermodynamics	4	1	0	5	70	30	30	20	150	14
2131405	Introduction to Food Processing Technology	4	0	0	4	70	30	0	0	100	14
2131406	Food Chemistry	3	0	2	5	70	30	30	20	150	14
2131407	Basic Food Microbiology	3	0	2	5	70	30	30	20	150	14
2130005	Design Engineering - I A	0	0	3	3	0	0	80	20	100	14
	Total	21	3	6	33						

Semester III

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)		
2130002	Advanced Engineering Mathematics	3	2	0	5	70	30	30	20	150	16
2130004	Engineering Economics & Management	3	0	0	3	70	30	0	0	100	16
2130702	Data structures	4	0	4	8	70	30	30	20	150	16
2130703	Database Management Systems	4	0	4	8	70	30	30	20	150	16
2131004	Digital Electronics	4	0	2	6	70	30	30	20	150	16
2130005	Design Engineering - I A	0	0	3	3	0	0	80	20	100	16
	Total	18	2	10	33						

Semester III

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)		
2130002	Advanced Engineering Mathematics	3	2	0	5	70	30	30	20	150	17
2130004	Engineering Economics and Management	3	0	0	3	70	30	0	0	100	17
2130901	Circuits and Networks	4	0	2	6	70	30	30	20	150	17
2131005	Electrical Machines	3	0	2	5	70	30	30	20	150	17
2131006	Electronic Devices & circuits	4	0	2	6	70	30	30	20	150	17
2131704	Digital Logic Circuits	3	0	2	5	70	30	30	20	150	17
2130005	Design Engineering - I A	0	0	3	3	0	0	80	20	100	17
	Total	20	2	8	33						

Semester III

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)		
2130002	Advanced Engineering Mathematics	3	2	0	5	70	30	30	20	150	19
2130003	Mechanics of Solids	4	0	2	6	70	30	30	20	150	19
2131903	Manufacturing Process-1	3	0	2	5	70	30	30	20	150	19
2131904	Material Science and Metallurgy	3	0	2	5	70	30	30	20	150	19
2131905	Engineering Thermodynamics	4	1	0	5	70	30	30	20	150	19
2131906	Kinematics of Machines	3	1	0	4	70	30	30	20	150	19
2130005	Design Engineering - I A	0	0	3	3	0	0	80	20	100	19
	Total	20	4	9	33						

Semester III

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)		
2130002	Advance Engineering Mathematics	3	2	0	5	70	30	30	20	150	20
2130003	Mechanics of Solids	4	0	2	6	70	30	30	20	150	20
2132001	Industrial Drafting	2	0	2	4	70	30	30	20	150	20
2132002	Simulation & Design Tools	0	0	3	3	0	0	80	20	100	20
2132003	Design Concepts in Basic Electronics	4	0	2	6	70	30	30	20	150	20
2132004	Principles Of Materials Science And Physical Metallurgy	4	0	2	6	70	30	30	20	150	20
2130005	Design Engineering - I A	0	0	3	3	0	0	80	20	100	20
	Total	17	2	11	33						

Semester III

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)		
2130002	Advance Engineering Mathematics	3	2	0	5	70	30	30	20	150	22
2130003	Mechanics of Solids	4	0	2	6	70	30	30	20	150	22
2130601	Surveying	3	0	2	5	70	30	30	20	150	22
2130101	Fundamentals of Fluid Mechanics	3	0	2	5	70	30	30	20	150	22
2132201	Introduction To Mining	4	0	0	4	70	30	0	0	100	22
2132203	Geology-I	3	0	2	5	70	30	30	20	150	22
2130005	Design Engineering - I A	0	0	3	3	0	0	80	20	100	22
	Total	20	2	8	33						

Semester III

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)		
2130002	Advanced Engineering Mathematics	3	2	0	5	70	30	30	20	150	23
2130003	Mechanics of Solids	4	0	2	6	70	30	30	20	150	23
2132301	Introduction to Plastic Material Science	3	0	3	6	70	30	30	20	150	23
2132302	Manufacturing of Plastic Materials-1	3	0	3	6	70	30	30	20	150	23
2132303	Basic of Plastic Material Testing	4	0	3	7	70	30	30	20	150	23
2130005	Design Engineering - I A	0	0	3	3	0	0	80	20	100	23
	Total	17	2	11	33						

Semester III

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)		
2130002	Advance Engineering Mathematics	3	2	0	5	70	30	30	20	150	24
2130004	Engineering Economics and Management	3	0	0	3	70	30	0	0	100	24
2130901	Circuits & Networks	4	0	2	6	70	30	30	20	150	24
2132404	Principles of Power Electronics	3	0	2	5	70	30	30	20	150	24
2130903	Electrical Measurement and Measuring Instruments	3	0	2	5	70	30	30	20	150	24
2130904	DC Machines & Transformer	4	0	2	6	70	30	30	20	150	24
2130005	Design Engineering - I A	0	0	3	3	0	0	80	20	100	24
	Total	20	2	8	33						

Semester III

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)		
2130002	Advanced Engineering Mathematics	3	2	0	5	70	30	30	20	150	25
2130003	Mechanics of Solid	4	0	2	6	70	30	30	20	150	25
2131904	Material Science and Metallurgy	3	0	2	5	70	30	30	20	150	25
2132501	Machining Processes	4	0	2	6	70	30	30	20	150	25
2132502	Engineering Thermodynamics & Heat transfer	4	2	0	6	70	30	30	20	150	25
2132503	Computer Aided Drafting	0	0	2	2	0	0	80	20	100	25
2130005	Design Engineering - I A	0	0	3	3	0	0	80	20	100	25
	Total	18	4	8	30						

Semester III

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)		
2130002	Advanced Engineering Mathematics	3	2	0	5	70	30	30	20	150	28
2130003	Mechanics of Solids	4	0	2	6	70	30	30	20	150	28
2132801	Textile Design & Colour	4	0	0	4	70	30	0	0	100	28
2132805	Organic Chemistry	3	0	2	5	70	30	30	20	150	28
2132806	Textile Manufacturing - I	4	0	2	6	70	30	30	20	150	28
2132901	Textile Fibres	4	0	0	4	70	30	0	0	100	28
2130005	Design Engineering - I A	0	0	3	3	0	0	80	20	100	28
	Total	22	2	6	33						

Semester III

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)		
2130002	Advanced Engineering Mathematics	3	2	0	5	70	30	30	20	150	29
2130003	Mechanics of Solids	4	0	2	6	70	30	30	20	150	29
2132901	Textile Fibres	4	0	0	4	70	30	0	0	100	29
2132902	Yarn Manufacturing-I	4	0	2	6	70	30	30	20	150	29
2132904	Textile Processing - I	4	0	2	6	70	30	30	20	150	29
2132905	Basic Engineering in Textile	3	0	0	3	70	30	0	0	100	29
2130005	Design Engineering - I A	0	0	3	3	0	0	80	20	100	29
	Total	22	2	6	33						

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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)		
2130002	Advanced Engineering Mathematics	3	2	0	5	70	30	30	20	150	32
2130004	Engineering Economics & Management	3	0	0	3	70	30	0	0	100	32
2130702	Data structures	4	0	4	8	70	30	30	20	150	32
2130703	Database Management Systems	4	0	4	8	70	30	30	20	150	32
2131004	Digital Electronics	4	0	2	6	70	30	30	20	150	32
2130005	Design Engineering - I A	0	0	3	3	0	0	80	20	100	32
	Total	18	2	10	33						

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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)		
2130002	Advanced Engineering Mathematics	4	0	2	6	70	30	30	20	150	34
2130003	Mechanics of Solids	3	2	0	5	70	30	30	20	150	34
2133402	Electrical Drives and Controls	3	0	2	5	70	30	30	20	150	34
2133403	Engineering Materials and Metallurgy	3	0	2	5	70	30	30	20	150	34
2133404	Basic Manufacturing Processes	3	0	2	5	70	30	30	20	150	34
2133405	Manufacturing and Assembly Drawing	2	0	2	4	70	30	30	20	150	34
2130005	Design Engineering - I A	0	0	3	3	0	0	80	20	100	34
	Total	18	2	10	33						

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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)		
2130002	Advanced Engineering Mathematics	3	2	0	5	70	30	30	20	150	36
2130003	Mechanics of Solids	4	0	2	6	70	30	30	20	150	36
2133605	Organic Chemistry for Technologists	3	0	3	6	70	30	30	20	150	36
2133606	Material & Energy Balance Calculations	3	1	0	4	70	30	30	20	150	36
2133607	Physical Chemistry	3	0	2	5	70	30	30	20	150	36
	Department Elective-I	4	0	0	4	70	30	0	0	100	36
2130005	Design Engineering - I A	0	0	3	3	0	0	80	20	100	36
	Total	20	3	7	33						

Department Elective- I

Institute code	Name of the subject
2133601	Introduction to Medicinal Chemistry & Biochemistry
2133602	Polymer Chemistry
2133603	Introduction to Glass & Ceramic Technology-I
2133604	Chemistry of Intermediates & Colorants-I

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		Theory	Tutorial	Practical		ESE(E)	PA (M)	Viva (V)	PA(I)		
2130002	Advanced Engineering Mathematics	3	2	0	5	70	30	30	20	150	39
2130003	Mechanics of Solids	4	0	2	6	70	30	30	20	150	39
2133901	Fundamentals of Solid State Technology	3	0	0	3	70	30	0	0	100	39
2133902	Elements of Nanoscience and Nanotechnology-I	3	0	0	3	70	30	0	0	100	39
2133903	Synthesis of Nanomaterials-I	2	0	4	6	70	30	30	20	150	39
2133904	Characterization of Nanomaterials-I	2	0	4	6	70	30	30	20	150	39

2130005	Design Engineering - I A	0	0	3	3	0	0	80	20	100	39
	Total	17	2	10	32						

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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)		
2130002	Advanced Engineering Mathematics	3	2	0	5	70	30	30	20	150	35
2130003	Mechanics of Solids	4	0	2	6	70	30	30	20	150	35
2133506	Physico-chemical Processes	3	0	2	5	70	30	30	20	150	35
2133501	Organic Chemistry	3	0	3	6	70	30	30	20	150	35
2133502	Analytical Techniques	3	0	2	5	70	30	30	20	150	35
2133505	Chemistry for Environmental Science and Technology	3	0	0	3	70	30	0	0	100	35
2130005	Design of Engineering-1 A	0	0	3	3	0	0	80	20	100	35
	Total	19	2	9	33						

Semester III

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)		
2130002	Advance Engineering Mathematics	3	2	0	5	70	30	30	20	150	40
2130003	Mechanics of Solids	4	0	2	6	70	30	30	20	150	40
2130005	Design Engineering I-A	0	0	3	3	0	0	80	20	100	40
2134001	Machineries & Equipments	3	0	0	3	70	30	0	0	100	40
2134002	Building Technology & Materials	3	0	2	5	70	30	30	20	150	40
2134003	Geomatics Engineering	3	0	2	5	70	30	30	20	150	40
2134004	Green Chemistry & Technology	3	0	2	5	70	30	30	20	150	40
	Total	19	2	11	32						