



Semester - 1

						Internal				External				Total				Total Marks
						Theory		Practical		Theory		Practical		Theory (Internal + External)		Practical (Internal + External)		
Code	Subject	Credit	Lect	Lab	Tut	Max	Passing	Max	Passing	Max	Passing	Max	Passing	Max	Passing	Max	Passing	
20103110	Engineering Mechanics	3.00	2	2	-	30	0	20	0	50	0	-	-	100	50	-	-	100
20103111	Engineering Mathematics-I	3.00	2	2	-	30	0	20	0	50	0	-	-	100	50	-	-	100
20103112	Engineering Physics	3.00	2	2	-	30	0	20	0	50	0	-	-	100	50	-	-	100
20103113	Surveying and Levelling	3.00	1	4	-	30	0	20	0	50	0	-	-	100	50	-	-	100
20103160	Heat and Mass Transfer	2.00	2	-	-	50	0	-	-	50	0	-	-	100	50	-	-	100
20103161	Engineering Drawing	2.00	-	4	-	-	0	100	-	-	-	-	-	-	-	100	50	100
20103201	Engineering Chemistry	3.00	2	2	-	30	0	20	-	50	0	-	-	100	50	-	-	100
20103204	Principles of Soil Science	3.00	2	2	-	30	0	20	0	50	0	-	-	100	50	-	-	100
20193104	Communication Skills (only for DT/AG)	1.00	0	2	0	-	0	-	-	-	-	-	-	-	-	100	50	100
Total		23.00	13	20	0	230	0	220	0	350	0			700	350	200	100	900

Lect - Lecture, **Tut** - Tutorial, **Lab** - Lab, **T** - Theory, **P** - Practical, **CE** - CE, **T** - Theory, **P** - Practical
Theory Passing % : 50 Practical Passing % : 50



Semester - 2

						Internal				External				Total				Total Marks
						Theory		Practical		Theory		Practical		Theory (Internal + External)		Practical (Internal + External)		
Code	Subject	Credit	Lect	Lab	Tut	Max	Passing	Max	Passing	Max	Passing	Max	Passing	Max	Passing	Max	Passing	
20103153	Engineering Mathematics-II	3.00	2	2	-	30	0	20	-	50	0	-	-	100	50	-	-	100
20103154	Environmental Science and Disaster Management	3.00	2	2	-	30	0	20	-	50	0	-	-	100	50	-	-	100
20103155	Fluid Mechanics and Open Channel Hydraulics	3.00	2	2	-	30	0	20	-	50	0	-	-	100	50	-	-	100
20103158	Theory of Machines	2.00	2	-	-	30	0	20	-	50	0	-	-	100	50	-	-	100
20103162	Strength of Materials	2.00	1	2	-	30	0	20	-	50	0	-	-	100	50	-	-	100
20103163	Workshop Technology & Practices	3.00	1	4	-	30	0	20	-	50	0	-	-	100	50	-	-	100
20103164	Entrepreneurship Development and Business Management	3.00	2	2	-	30	0	20	-	50	0	-	-	100	50	-	-	100
20103263	Web Designing and Internet Applications	2.00	1	2	-	30	0	20	-	50	0	-	-	100	50	-	-	100
Total		21.00	13	16		240	0	160		400	0			800	400			800

Lect - Lecture, **Tut** - Tutorial, **Lab** - Lab, **T** - Theory, **P** - Practical, **CE** - CE, **T** - Theory, **P** - Practical
Theory Passing % : 50 Practical Passing % : 50



Semester - 3

						Internal				External				Total				Total Marks
						Theory		Practical		Theory		Practical		Theory (Internal + External)		Practical (Internal + External)		
Code	Subject	Credit	Lect	Lab	Tut	Max	Passing	Max	Passing	Max	Passing	Max	Passing	Max	Passing	Max	Passing	
20103202	Principles of Agronomy	3.00	2	2	-	30	0	20	0	50	0	-	-	100	50	-	-	100
20103203	Engineering Mathematics-III	3.00	2	2	-	30	0	20	-	50	0	-	-	100	50	-	-	100
20103205	Design of Structures	2.00	1	2	-	30	0	20	0	50	0	-	-	100	50	-	-	100
20103206	Machine Design	2.00	2	-	-	50	0	-	-	50	0	-	-	100	50	-	-	100
20103207	Thermodynamics, Refrigeration and Air Conditioning	3.00	2	2	-	30	0	20	0	50	0	-	-	100	50	-	-	100
20103208	Electrical Machines and Power Utilizations	3.00	2	2	-	30	0	20	0	50	0	-	-	100	50	-	-	100
20103209	Principles of Horticultural Crops and Plant Protections	2.00	1	2	-	30	0	20	0	50	0	-	-	100	50	-	-	100
20103210	Soil Mechanics	2.00	1	2	-	30	0	20	0	50	0	-	-	100	50	-	-	100
20193201	Communication Skills & Personality Development	1.00	0	2	0	-	0	100	-	-	-	-	-	-	-	100	50	100
Total		21.00	13	16	0	260	0	240	0	400	0			800	400	100	50	900

Lect - Lecture, **Tut** - Tutorial, **Lab** - Lab, **T** - Theory, **P** - Practical, **CE** - CE, **T** - Theory, **P** - Practical
Theory Passing % : 50 Practical Passing % : 50



Semester - 4

						Internal				External				Total				Total Marks
						Theory		Practical		Theory		Practical		Theory (Internal + External)		Practical (Internal + External)		
Code	Subject	Credit	Lect	Lab	Tut	Max	Passing	Max	Passing	Max	Passing	Max	Passing	Max	Passing	Max	Passing	
20103254	Building Construction and Cost Estimation	2.00	2	-	-	50	0	-	-	50	0	-	-	100	50	-	-	100
20103255	AutoCAD Applications	2.00	-	4	-	-	0	100	-	-	-	-	-	-	-	100	50	100
20103256	Applied Electronics and Instrumentation	3.00	2	2	-	30	0	20	-	50	0	-	-	100	50	-	-	100
20103257	Tractor and Automotive Engines	3.00	2	2	-	30	0	20	-	50	0	-	-	100	50	-	-	100
20103258	Engineering Properties of Agricultural Produce	2.00	1	2	-	30	0	20	-	50	0	-	-	100	50	-	-	100
20103259	Watershed Hydrology	2.00	1	2	-	30	0	20	-	50	0	-	-	100	50	-	-	100
20103260	Irrigation Engineering	3.00	2	2	-	30	0	20	-	50	0	-	-	100	50	-	-	100
20103261	Sprinkler and Micro Irrigation Systems	2.00	1	2	-	30	0	20	-	50	0	-	-	100	50	-	-	100
20103262	Fundamentals of Renewable Energy Sources	3.00	2	2	-	30	0	20	-	50	0	-	-	100	50	-	-	100
Total		22.00	13	18		260	0	240		400	0			800	400	100	50	900

Lect - Lecture, **Tut** - Tutorial, **Lab** - Lab, **T** - Theory, **P** - Practical, **CE** - CE, **T** - Theory, **P** - Practical
Theory Passing % : 50 Practical Passing % : 50



Semester - 5

						Internal				External				Total				Total Marks
						Theory		Practical		Theory		Practical		Theory (Internal + External)		Practical (Internal + External)		
Code	Subject	Credit	Lect	Lab	Tut	Max	Passing	Max	Passing	Max	Passing	Max	Passing	Max	Passing	Max	Passing	
20103302	Tractor Systems and Controls	3.00	2	2	-	30	0	20	0	50	0	-	-	100	50	-	-	100
20103303	Farm Machinery and Equipment-I	3.00	2	2	-	30	0	20	0	50	0	-	-	100	50	-	-	100
20103304	Agricultural Structures and Environmental Control	3.00	2	2	-	30	0	20	0	50	0	-	-	100	50	-	-	100
20103305	Post Harvest Engineering of Cereals, Pulses and Oil Seeds	4.00	3	2	-	30	0	20	0	50	0	-	-	100	50	-	-	100
20103306	Soil and Water Conservation Engineering	3.00	2	2	-	30	0	20	0	50	0	-	-	100	50	-	-	100
20103307	Watershed Planning and Management	2.00	1	2	-	30	0	20	0	50	0	-	-	100	50	-	-	100
20103308	Drainage Engineering	2.00	1	2	-	30	0	20	0	50	0	-	-	100	50	-	-	100
20103309	Renewable Power Sources	3.00	2	2	-	30	0	20	0	50	0	-	-	100	50	-	-	100
20103310	Skill Development Training-I (Student READY)	5.00	-	10	-	-	0	100	0	-	-	-	-	-	-	100	50	100
20193301	Employability Skills	1.00	0	2	0	-	0	100	-	-	-	-	-	-	-	100	50	100
Total		29.00	15	28	0	240	0	360	0	400	0			800	400	200	100	1000

Lect - Lecture, **Tut** - Tutorial, **Lab** - Lab, **T** - Theory, **P** - Practical, **CE** - CE, **T** - Theory, **P** - Practical
Theory Passing % : 50 Practical Passing % : 50



Semester - 6

						Internal				External				Total				Total Marks
						Theory		Practical		Theory		Practical		Theory (Internal + External)		Practical (Internal + External)		
Code	Subject	Credit	Lect	Lab	Tut	Max	Passing	Max	Passing	Max	Passing	Max	Passing	Max	Passing	Max	Passing	
20103352	Computer Programming and Data Structures	3.00	1	4	-	30	0	20	0	50	0	-	-	100	50	-	-	100
20103353	Farm Machinery and Equipment-II	3.00	2	2	-	30	0	20	0	50	0	-	-	100	50	-	-	100
20103354	Post Harvest Engineering of Horticultural Crops	3.00	2	2	-	30	0	20	0	50	0	-	-	100	50	-	-	100
20103355	Water Harvesting and Soil Conservation Structures	3.00	2	2	-	30	0	20	0	50	0	-	-	100	50	-	-	100
20103356	Groundwater, Wells and Pumps	3.00	2	2	-	30	0	20	0	50	0	-	-	100	50	-	-	100
20103357	Tractor and Farm Machinery Operation and Maintenance	2.00	-	4	-	-	0	100	-	-	-	-	-	-	-	100	50	100
20103358	Dairy and Food Engineering	3.00	2	2	-	30	0	20	0	50	0	-	-	100	50	-	-	100
20103359	Bio-energy Systems: Design and Applications	3.00	2	2	-	30	0	20	0	50	0	-	-	100	50	-	-	100
203100357	Innovation and Entrepreneurship	2.00	2	0	0	60	0	-	-	-	-	-	-	100	50	-	-	100
Total		25.00	15	20	0	270	0	240	0	350	0			800	400	100	50	900

Lect - Lecture, **Tut** - Tutorial, **Lab** - Lab, **T** - Theory, **P** - Practical, **CE** - CE, **T** - Theory, **P** - Practical
Theory Passing % : 50 Practical Passing % : 50



Semester - 7

						Internal				External				Total				Total Marks
						Theory		Practical		Theory		Practical		Theory (Internal + External)		Practical (Internal + External)		
Code	Subject	Credit	Lect	Lab	Tut	Max	Passing	Max	Passing	Max	Passing	Max	Passing	Max	Passing	Max	Passing	
20103401	10- weeks Industrial Attachment /Internship (Student READY)	10.00	-	-	-	-	0	100	0	-	-	-	-	-	-	100	50	100
20103402	10- weeks Experiential Learning On campus (Student READY)	10.00	-	-	-	-	0	100	0	-	-	-	-	-	-	100	50	100
20103403	Skill Development Training-II (Student READY)	5.00	-	-	-	-	0	100	0	-	-	-	-	-	-	100	50	100
20103404	Educational Tour (Registration only)	2.00	-	4	-	-	0	100	-	-	-	-	-	-	-	100	50	100
Total		27.00		4			0	400	0							400	200	400

Lect - Lecture, **Tut** - Tutorial, **Lab** - Lab, **T** - Theory, **P** - Practical, **CE** - CE, **T** - Theory, **P** - Practical
Theory Passing % : 50 Practical Passing % : 50



Semester - 8

						Internal				External				Total				Total Marks
						Theory		Practical		Theory		Practical		Theory (Internal + External)		Practical (Internal + External)		
Code	Subject	Credit	Lect	Lab	Tut	Max	Passing	Max	Passing	Max	Passing	Max	Passing	Max	Passing	Max	Passing	
20103452	Project Planning and Report Writing	10.00	-	20	-	-	0	100	0	-	-	-	-	-	-	100	50	100
	Elective Course 1 (Compulsory Subjects :1)	3.00	2	2	-	50	0	-	-	50	0	-	-	-	-	-	-	100
	Elective Course 2 (Compulsory Subjects :1)	3.00	2	2	-	50	0	-	-	50	0	-	-	-	-	-	-	100
	Elective Course 3 (Compulsory Subjects :1)	3.00	2	2	-	50	0	-	-	50	0	-	-	-	-	-	-	100
	Total	19.00	6	26		150	0	100	0	150	0					100	50	400

Semester - 8 Elective Course 1

						Internal				External				Total				Total Marks
						Theory		Practical		Theory		Practical		Theory (Internal + External)		Practical (Internal + External)		
Code	Subject	Credit	Lect	Lab	Tut	Max	Passing	Max	Passing	Max	Passing	Max	Passing	Max	Passing	Max	Passing	
20103470	Floods and Control Measures	3.00	2	2	-	30	0	20	0	50	0	-	-	100	50	-	-	100
20103471	Wasteland Development	3.00	2	2	-	30	0	20	0	50	0	-	-	100	50	-	-	100
20103472	Information Technology for Land and Water Management	3.00	2	2	-	30	0	20	0	50	0	-	-	100	50	-	-	100
20103473	Remote Sensing and GIS Applications	3.00	2	2	-	30	0	20	0	50	0	-	-	100	50	-	-	100
20103474	Management of Canal Irrigation System	3.00	2	2	-	30	0	20	0	50	0	-	-	100	50	-	-	100
20103475	Minor Irrigation and Command Area Development	3.00	2	2	-	30	0	20	0	50	0	-	-	100	50	-	-	100
20103477	Water Quality and Management Measures	3.00	2	2	-	30	0	20	0	50	0	-	-	100	50	-	-	100



Semester - 8 Elective Course 1

						Internal				External				Total				Total Marks
						Theory		Practical		Theory		Practical		Theory (Internal + External)		Practical (Internal + External)		
Code	Subject	Credit	Lect	Lab	Tut	Max	Passing	Max	Passing	Max	Passing	Max	Passing	Max	Passing	Max	Passing	
20103478	Landscape Irrigation Design and Management	3.00	2	2	-	30	0	20	0	50	0	-	-	100	50	-	-	100
20103494	Artificial Intelligence	3.00	2	2	-	30	0	20	0	50	0	-	-	100	50	-	-	100

Semester - 8 Elective Course 2

						Internal				External				Total				Total Marks
						Theory		Practical		Theory		Practical		Theory (Internal + External)		Practical (Internal + External)		
Code	Subject	Credit	Lect	Lab	Tut	Max	Passing	Max	Passing	Max	Passing	Max	Passing	Max	Passing	Max	Passing	
20103476	Precision Farming Techniques for Protected Cultivation	3.00	2	2	-	30	0	20	0	50	0	-	-	100	50	-	-	100
20103481	Mechanics of Tillage and Traction	3.00	2	2	-	30	0	20	0	50	0	-	-	100	50	-	-	100
20103482	Farm Machinery Design and Production	3.00	2	2	-	30	0	20	0	50	0	-	-	100	50	-	-	100
20103483	Human Engineering and Safety	3.00	2	2	-	30	0	20	0	50	0	-	-	100	50	-	-	100
20103484	Tractor Design and Testing	3.00	2	2	-	30	0	20	0	50	0	-	-	100	50	-	-	100
20103485	Hydraulic Drives and Controls	3.00	2	2	-	30	0	20	0	50	0	-	-	100	50	-	-	100
20103486	Precision Agriculture and System Management	3.00	2	2	-	30	0	20	0	50	0	-	-	100	50	-	-	100
20103495	Mechatronics	3.00	2	2	-	30	0	20	0	50	0	-	-	100	50	-	-	100



Semester - 8 Elective Course 3

						Internal				External				Total				Total Marks
						Theory		Practical		Theory		Practical		Theory (Internal + External)		Practical (Internal + External)		
Code	Subject	Credit	Lect	Lab	Tut	Max	Passing	Max	Passing	Max	Passing	Max	Passing	Max	Passing	Max	Passing	
20103479	Plastic Applications in Agriculture	3.00	2	2	-	30	0	20	0	50	0	-	-	100	50	-	-	100
20103487	Food Quality and Control	3.00	2	2	-	30	0	20	0	50	0	-	-	100	50	-	-	100
20103488	Food Plant Design and Management	3.00	2	2	-	30	0	20	0	50	0	-	-	100	50	-	-	100
20103489	Food Packaging Technology	3.00	2	2	-	30	0	20	0	50	0	-	-	100	50	-	-	100
20103490	Development of Processed Products	3.00	2	2	-	30	0	20	0	50	0	-	-	100	50	-	-	100
20103491	Process Equipment Design	3.00	2	2	-	30	0	20	0	50	0	-	-	100	50	-	-	100
20103492	Photovoltaic Technology and Systems	3.00	2	2	-	30	0	20	0	50	0	-	-	100	50	-	-	100
20103493	Waste and By-products Utilization	3.00	2	2	-	30	0	20	0	50	0	-	-	100	50	-	-	100

Lect - Lecture, **Tut** - Tutorial, **Lab** - Lab, **T** - Theory, **P** - Practical, **CE** - CE, **T** - Theory, **P** - Practical
Theory Passing % : 50 Practical Passing % : 50