SWAMI VIVEKANAND UNIVERSITY, SIRONJA, SAGAR (M.P.)





For Bachelor of Engineering - Agriculture Course Code: BTAG

Department of Agriculture Science Faculty of Agriculture Science

Duration of Course : 4 Year

Examination Mode : Semester

Examination System : Non Grading

Swami Vivekanand University, Sironja Sagar (M.P.) 2016-2017





Faculty of Agriculture Science Scheme of Course: (B.Tech.) – Agricultural Engineering Department of Agriculture Engineering Course Code : BTAG Semester/Year - 1st Sem.

Internal Theory + Practical Duration Total Credit Allotted X=B+C+D Paper / Title of the End Sem X=B+C+D of (Max) Mid Subject Paper / Assignment Practical Term Theory Code Subject Exam L Ρ Total Max Max MIN(A) Max (C) Max (D) Max (X) MIN(X) Y=A+X (A) (B) Engineering 3 **BTAG0101** 2 1 50 25 30 5 15 50 25 100 3 Hrs Mathematics-I Engineering **BTAG0102** 3 2 50 25 30 15 1 5 50 25 3 Hrs 100 Physics-1 Engineering **BTAG0103** 3 2 1 50 25 30 5 15 50 25 100 3 Hrs Chemistry Environmental science & BTAG0104 3 2 1 50 25 30 5 15 50 25 100 3 Hrs disaster management Surveying & **BTAG0105** 3 2 50 25 30 5 15 25 100 3 Hrs 1 50 Leveling-I Strength of **BTAG0106** 2 50 25 30 5 15 100 1 50 25 3 Hrs 1 Materials Engineering **BTAG0107** 2 0 0 50 0 2 0 0 50 25 50 3 Hrs Drawing Heat And **BTAG0108** 2 2 0 50 25 10 0 25 100 3 Hrs 40 50 Mass Transfer 21 12 9 350 175 220 **40** 140 400 200 750 Total





Faculty of Agriculture Science

Scheme of Course: (B.Tech.) – Agricultural Engineering

Department of Agriculture Engineering Course Code : BTAG Semester/Year -2^{nd}

Sem.

Paper / Subject Code	Title of the Paper / Subject	Credit Allotted			End Sem		Interna	Internal Theory + Practical					Duration
							Mid Term	Assignment	Practical	X=B+C+D	X=B+C+D	Total (Max)	Duration of Theory
		Total	L	Р	Max (A)	MIN(A)	Max (B)	Max (C)	Max (D)	Max (X)	MIN(X)	Y=A+X	Exam
BTAG0201	Engineering Mathematics-II	3	2	1	50	25	30	5	15	50	25	100	3 Hrs
BTAG0202	Principles of soil science	3	2	1	50	25	30	5	15	50	25	100	3 Hrs
BTAG0203	Entrepreneurship Development & business management	3	2	1	50	25	30	5	15	50	25	100	3 Hrs
BTAG0204	Theory of structures	2	1	1	50	25	30	5	15	50	25	100	3 Hrs
BTAG0205	Engineering mechanics	3	2	1	50	25	30	5	15	50	25	100	3 Hrs
BTAG0206	Workshop technology & practice	3	1	2	50	25	30	5	15	50	25	100	3 Hrs
BTAG0207	Theory of machine	2	2	0	50	25	40	10	0	50	25	100	3 Hrs
BTAG0208	Web designing & internet application	2	1	1	50	25	30	5	15	50	25	100	3 Hrs
	Total	21	13	8	400	200	250	45	105	400	200	800	





Faculty of Agriculture Science

Scheme of Course: (B.Tech.) – Agricultural Engineering

Department of Agriculture Engineering Course Code : BTAG Semester/Year – 3rd Sem.

		Credit Allotted			End Sem		In	ternal Theo Practical				Total (Max)	Duration
Paper / Subject Code	Title of the Paper / Subject						Mid Term	Assignment	Practical	X=B+C+D	X=B+C+D		of Theory
		Total	L	Ρ	Max (A)	MIN(A)	Max (B)	Max (C)	Max (D)	Max (X)	MIN(X)	Y=A+X	Exam
BTAG0301	Principles of horticultural crop and plant protection	2	1	1	50	25	30	5	15	50	25	100	3 Hrs
BTAG0302	Principles of agronomy	3	2	1	50	25	30	5	15	50	25	100	3 Hrs
BTAG0303	Communication skills and personality development	2	1	1	50	25	30	5	15	50	25	100	3 Hrs
BTAG0304	Engineering mathematics-III	3	2	1	50	25	30	5	15	50	25	100	3 Hrs
BTAG0305	Soil mechanics	2	1	1	50	25	30	5	15	50	25	100	3 Hrs
BTAG0306	Fluid mechanics and open channel hydraulic	3	2	1	50	25	30	5	15	50	25	100	3 Hrs
BTAG0307	Machine design	2	2	0	50	25	40	10	0	50	25	100	3 Hrs
BTAG0308	Thermodynamics,refrigeration and air conditioning	3	2	1	50	25	30	5	15	50	25	100	3 Hrs
BTAG0309	Electrical machine and power utilization	3	2	1	50	25	30	5	15	50	25	100	3 Hrs
	Total	23	15	8	450	225	270	50	120	450	225	900	





Faculty of Agriculture Science

Scheme of Course: (B.Tech.) – Agricultural Engineering

Department of Agriculture Engineering Course Code : BTAG Semester/Year – 4th

Sem.

Paper / Subject Code	Title of the Paper / Subject	Credit Allotted					Interna	al Theory + F	Practical			Tatal	Duration
		Cree	dit Allot	ted	End Sem		Mid Term	Assignment	signment Practical		X=B+C+D	Total (Max)	of Theory
Code		Total	L	Р	Max (A)	MIN(A)	Max (B)	Max (C)	Max (D)	Max (X)	MIN(X)	Y=A+X	Exam
BTAG0401	Building construction cost estimation	2	2	0	50	25	40	10	0	50	25	100	3 Hrs
BTAG0402	Auto cad application	2	0	2	0	0	0	50	0	50	25	50	3 Hrs
BTAG0403	Applied electronics and instrumentation	3	2	1	50	25	30	5	15	50	25	100	3 Hrs
BTAG0404	Tractor and automotive engines	3	2	1	50	25	30	5	15	50	25	100	3 Hrs
BTAG0405	Engineering properties of agricultural produce	2	1	1	50	25	30	5	15	50	25	100	3 Hrs
BTAG0406	Watershed hydrology	2	1	1	50	25	30	5	15	50	25	100	3 Hrs
BTAG0407	Irrigation engineering	3	2	1	50	25	30	5	15	50	25	100	3 Hrs
BTAG0408	Sprinkler and micro irrigation systems	2	1	1	50	25	30	5	15	50	25	100	3 Hrs
BTAG0409	Fundamental of renewable energy sources	3	2	1	50	25	30	5	15	50	25	100	3 Hrs
	Total	22	15	9	400	200	250	95	105	450	225	850	





Faculty of Agriculture Science

Scheme of Course: (B.Tech.) – Agricultural Engineering

Department of Agriculture Engineering Course Code : BTAG Semester/Year – 5th

Sem.

Paper / Subject Code		•					Interna	al Theory + F	Practical			Tatal	Duration
	Title of the Paper / Subject	Credit Allotted			End Sem		Mid Term Assignment Practical		X=B+C+D X=B+C+D		Total (Max)	of Theory	
Code		Total	L	Р	Max (A)	MIN(A)	Max (B)	Max (C)	Max (D)	Max (X)	MIN(X)	Y=A+X	Exam
BTAG0501	Tractor systems and controls	3	2	1	50	25	30	5	15	50	25	100	3 Hrs
BTAG0502	Farm machinery and equipment I	3	2	1	50	25	30	5	15	50	25	100	3 Hrs
BTAG0503	Agricultural structures and environmental control	3	2	1	50	25	30	5	15	50	25	100	3 Hrs
BTAG0504	Post harvest engineering of cereals, pulses and oil seeds	3	2	1	50	25	30	5	15	50	25	100	3 Hrs
BTAG0505	Soil and water conservation engineering	3	2	1	50	25	30	5	15	50	25	100	3 Hrs
BTAG0506	Watershed planning and management	2	1	1	50	25	30	5	15	50	25	100	3 Hrs
BTAG0507	Drainage engineering	2	1	1	50	25	30	5	15	50	25	100	3 Hrs
BTAG0508	Renewable energy sources	3	2	1	50	25	30	5	15	50	25	100	3 Hrs
BTAG0509	In plant training I	5	0	5	0	0	0	100	0	100	50	100	3 Hrs
	Total	27	14	13	400	200	240	140	120	500	250	900	





Faculty of Agriculture Science

Scheme of Course: (B.Tech.) – Agricultural Engineering

Department of Agriculture Engineering Course Code : BTAG Semester/Year -6^{th} Sem.

Internal Theory + Practical Duration Total **Credit Allotted** Paper / End Sem X=B+C+D X=B+C+D Mid of Title of the Paper Assignment Practical (Max) Subject Term / Subject Theory Code Ρ L Total Max Max MIN(A) Exam Max (C) Max (D) Max (X) MIN(X) Y=A+X (A) **(B)** Computer programming BTAG0601 3 2 30 5 1 50 25 15 50 25 100 3 Hrs and data structures BTAG0602 Farm machinery 3 2 25 30 5 1 50 15 50 25 100 3 Hrs and equipment II Post harvest engineering of BTAG0603 2 25 30 5 1 50 15 25 100 3 Hrs 1 50 horticultural crops Water harvesting **BTAG0604** and soil 3 5 2 50 25 30 15 25 100 3 Hrs 1 50 conservation structure BTAG0605 Ground water 3 2 50 25 30 5 15 1 50 25 100 3 Hrs wells and pumps Tractor and farm machinery BTAG0606 2 0 2 0 0 0 50 0 25 100 3 Hrs 50 operation and maintenance Dairy and food **BTAG0607** 3 50 25 30 2 5 25 3 Hrs 1 15 100 50 engineering Bio energy **BTAG0608** 3 2 5 systems design 1 50 25 30 15 50 25 100 3 Hrs and application Total 22 12 10 350 175 210 85 105 400 200 800





Faculty of Agriculture Science

Scheme of Course: (B.Tech.) – Agricultural Engineering

Department of Agriculture Engineering Course Code : BTAG Semester/Year – 7thSem.

Paper / Subject Code	Title of the Paper	Credit Allotted			End Sem		Interna	al Theory + F	Practical				Duration
							Mid Term	Assignment Practical		X=B+C+D	X=B+C+D	Total (Max)	of
	/ Subject	Total	L	Р	Max (A)	MIN(A)	Max (B)	Max (C)	Max (D)	Max (X)	MIN(X)	Y=A+X	Theory Exam
BTAG0701	10 weeks industrial attachment /intership (student ready)	10	0	10	0	0	0	200	0	200	100	200	3 Hrs
BTAG0702	10 weeks experimental learning on campus (student ready)	10	0	10	0	0	0	200	0	200	100	200	3 Hrs
BTAG0703	In plant training II (Student ready) Registration only	5	0	5	0	0	0	100	0	100	50	100	3 Hrs
BTAG0704	Educational tour (Registration only)	2	0	2	0	0	0	50	0	50	25	50	3 Hrs
	Total	27	0	27	0	0	0	550	0	550	275	550	





Faculty of Agriculture Science

Scheme of Course: (B.Tech.) – Agricultural Engineering

Department of Agriculture Engineering Course Code : BTAG Semester/Year – 8thSem.

							Interna	al Theory + F	Practical	Tatal	Duration		
Paper / Subject Code	Title of the Paper / Subject	Cree	Credit Allotted		End Sem		Mid Term	Assignment	Practical	X=B+C+D	X=B+C+D	Total (Max)	of Theory
Code		Total	L	Р	Max (A)	MIN(A)	Max (B)	Max (C)	Max (D)	Max (X)	MIN(X)	Y=A+X	Exam
BTAG0801	Water land development	3	2	1	50	25	30	5	15	50	25	100	3 Hrs
BTAG0802	Precision farming technique for protective cultivation	3	2	1	50	25	30	5	15	50	25	100	3 Hrs
BTAG0803	Food packaging technology	3	2	1	50	25	30	5	15	50	25	100	3 Hrs
BTAG0804	Project planning and report writing (student ready)	10	0	10	0	0	0	200	0	200	100	200	3 Hrs
	Total	19	6	13	150	75	90	215	45	350	175	500	