

CURRICULUM - B.E. Agricultural Engineering- 2015 (Total Credits : 177)

First Semester							
Code No.	Course	Objectives & Outcomes		L	T	P	C
		PEOs	POs				
15MA101	Matrices and Calculus	I,III	a,c	3	2	0	4
15PH102	Engineering Physics	I,III	a,d	2	0	2	3
15CH103	Environmental Science	I,III	a,b,c,d,h	2	0	2	3
15LE101/ 102	Language Elective I	IV	i	3	0	0	3
15GE105	Basics of Electrical and Electronics Engineering	I, III	a,b,d, h	2	0	2	3
15AG106	Fundamentals of Soil Science	II	a,b,d,h	2	0	2	3
15GE107	Workshop Practice	I,III	a,b,e,f	0	0	2	1
Total				14	2	10	20

SECOND SEMESTER							
Code No.	Course	Objectives & Outcomes		L	T	P	C
		PEOs	POs				
15MA201	Vector Calculus and Complex Analysis	I,III	a,c	3	2	0	4
15PH202	Applied Physics	I,III	a,d	3	0	2	4
15CH202	Applied Chemistry	I,III	a,d	3	0	2	4
15LE201/ 202	Language Elective II	IV	i	3	0	0	3
15AG205	Engineering Geology and Soil Mechanics	I,III	a,d,e,h	2	0	2	3
15GE206	Computer Programming	III	a,b,f	3	0	2	4
15GE207	Engineering Graphics	I, III	a,b,f	0	0	4	2
Total				17	2	12	24

Third Semester							
Code No.	Course	Objectives & Outcomes		L	T	P	C
		PEOs	POs				
15MA301	Fourier Series and Transforms	I,III	a,c	3	2	0	4
15AG302	Engineering Thermodynamics	I,III	a,b,c	3	2	0	4
15AG303	Engineering Mechanics	I,III	a,b,c	3	2	0	4
15AG304	Fluid Mechanics and Machinery	I,III	a,b,c	3	0	0	3
15AG305	Engineering Survey	I, III	a,b,h	3	0	0	3
15AG306	Soil and water Conservation Engineering	II, III	a,b,c,d,e	2	2	0	3
15AG307	Fluid Mechanics and Machinery Lab	I,III	a,b,d,h	0	0	2	1
15AG308	Engineering Survey Lab	I,III	a,b,d,h	0	0	2	1
15AG309	Mini Project I	II,III,IV	a,b,c,e,f,h	0	0	2	1
15GE310	Life Skills : Business English	IV	h,i	0	0	2	--
Total				17	8	8	24

FOURTH SEMESTER							
Code No.	Course	Objectives & Outcomes		L	T	P	C
		PEOs	POs				
15MA403	Numerical Methods	I,III	a,c	3	2	0	4
15AG402	Theory of Machines	I, III	a,b,c	3	0	0	3
15AG403	Heat Power Engineering	I, III	a,b,c,j	3	0	0	3
15AG404	Design of Farm Structures	II,III	a,b,c,e,f	3	0	0	3
15AG405	Irrigation and Drainage Engineering	II,III	a,b,c,e	3	0	0	3
15AG406	Production Technology of Agricultural and Horticultural Crops	II	d,h,k	3	0	2	4
15AG407	Heat Power Engineering Lab	I, III	a,b,d,h	0	0	2	1
15AG408	Irrigation and Drainage Engineering Lab	II,III	a,b,c,d,e	0	0	2	1
15AG409	Mini Project II	II, III, IV	a,b,c,e,f,h	0	0	2	1
15GE410	Life Skills : Verbal Ability	IV	h,i	0	0	2	--
Total				18	2	10	23

FIFTH SEMESTER							
Code No.	Course	Objectives & Outcomes		L	T	P	C
		PEOs	POs				
15MA501	Probability and Statistics	I,III	a,c	3	2	0	4
15AG502	Tractors and Farm Engines	II, III	a,b,e	3	0	0	3
15AG503	Unit Operations in Food Process Engineering	II, III	a,b,c,e,f	3	0	0	3
15AG504	Solar and Wind Energy Engineering	I, III	a,b,c,d,e,f	3	0	2	4
	Elective – I			3	0	0	3
	Elective – II			3	0	0	3
15AG507	Unit Operations in Food Process Engineering Lab	II, III	a,b,c,d,e,f	0	0	2	1
15AG508	Tractors and Farm Engines Lab	II, III	a,d,e,f	0	0	2	1
15AG509	Technical Seminar - I	II, IV	h,i,j,k,l	0	0	2	1
15AG510	Mini Project III	II, III,IV	a,b,c,e,f,h	0	0	2	1
15GE511	Life Skills : Aptitude I	IV	a	0	0	2	--
Total				18	2	12	24

SIXTH SEMESTER							
Code No.	Course	Objectives & Outcomes		L	T	P	C
		PEOs	POs				
15GE601	Professional Ethics	IV	g	2	0	0	2
15AG602	Bio and Thermo-chemical Conversion of Biomass	II, III	a,b,c,d, e,f	3	0	2	4
15AG603	Harvesting and Threshing Machinery	II	d,e,f,j	2	0	2	3
15AG604	Farm Implements, Sowing and Plant Protection Equipment	II	e,f,j	3	0	0	3
	Elective-III			3	0	0	3
	Elective-IV			3	0	0	3
15AG607	Computer Aided Modeling Lab	I, III	c,e,f,h	0	0	2	1
15AG608	Farm Implements, Sowing and Plant Protection Equipment Lab	II	d,e,f,j	0	0	2	1
15AG609	Technical Seminar - II	II, IV	h,i,j,k,l	0	0	2	1
15AG610	Mini Project IV	II, III, IV	a,b,c,e,f,h	0	0	2	1
15GE611	Life Skills : Aptitude II	IV	a,i	0	0	2	--
Total				16	0	14	22

SEVENTH SEMESTER							
Code No.	Course	Objectives & Outcomes		L	T	P	C
		PEOs	POs				
15GE701	Engineering Economics	II	e,j	3	0	0	3
15AG702	Dairy and Food Engineering	II, III	a,b,d,e	3	0	0	3
15AG703	Design of Irrigation Systems	II,III	a,b,c,e,f	3	0	0	3
15AG704	Crop Process Engineering	II,III	a,b,c,d,e,f	3	0	2	4
	Elective - V			3	0	0	3
	Elective - VI			3	0	0	3
15AG707	Dairy and Food Engineering Lab	II, III	a,b,c,d,e	0	0	2	1
15AG708	Management of Farm Machinery and Implements Lab	II, III	b,d,e,f	0	0	2	1
15AG709	Mini Project V	II, III, IV	a,b,c,e,f,h	0	0	2	1
15GE710	Life Skills: Competitive Exams	IV	a,i	0	0	2	--
Total				18	0	10	22

EIGHTH SEMESTER							
Code No.	Course	Objectives & Outcomes		L	T	P	C
		PEOs	POs				
	Elective - VII			3	0	0	3
	Elective - VIII			3	0	0	3
	Elective - IX			3	0	0	3
15AG804	Project Work	II, III, IV	a,b,c,e,f,h				9
Total							18

DISCIPLINE ELECTIVES – AGRICULTURAL ENGINEERING							
Code No.	Course	Objectives & Outcomes		L	T	P	C
		PEOs	POs				
15AG001	Building Materials, Estimation and Costing	I	a,b,c,f	2	2	0	3
15AG002	Machine design	II,III	a,b,c,f	3	0	0	3
15AG003	Heat and Mass Transfer	II, III	a,b,c	2	0	2	3
15AG004	GIS and Natural Resources Management	III	a,b,c,d,e,f	2	0	2	3
15AG005	Design of Farm Power & Machinery	II,III	a,b,c,e,f	3	0	0	3
15AG006	Refrigeration and Air Conditioning	I, III	a,b,c,e,f	2	2	0	3
15AG007	Storage and packaging technology	II,III	a,b,c,e, f	3	0	0	3
15AG008	Groundwater hydrology and well hydraulics	I,III	a,b,e,f	3	0	0	3
15AG009	Energy Conservation in Food industry	II,III	a,b,e,f	3	0	0	3
15AG010	Co-generation and waste heat recovery systems	II,III	a,b,e,f	3	0	0	3
15AG011	Seed Technology and Processing	II,III	a,b,e,f	3	0	0	3
15AG012	Fats and Oil Processing	II,III	a,b,e,f	3	0	0	3
15AG013	Horticultural Crop Process Engineering	II,III	a,b,e,f	3	0	0	3

OPEN ELECTIVES FOR OTHER DEPARTMENTS

Code No.	Course	Objectives & Outcomes		L	T	P	C
		PEOs	POs				
15AG0YA	Entrepreneurship Development and Food Quality Management in Food Industries	III	a,b,e	3	0	0	3
15AG0YB	Human Engineering and Safety in Agriculture	III	a,b,e	3	0	0	3
15AG0YC	Energy Management in Agriculture	III	a,b,e	3	0	0	3
15AG0YD	Farm Mechanisation	III	a,b,e	3	0	0	3

ONE CREDIT COURSES IN AGRICULTURAL ENGINEERING

Code No.	Course	Objectives & Outcomes		L	T	P	C
		PEOs	POs				
15AG0XA	Training on design and installation of drip system for different crops	II,III,IV	e,h,k,l	1	0	0	1
15AG0XB	Training on the manufacture of agricultural implements	II,III,IV	e,h,k,l	1	0	0	1
15AG0XC	Training on maintenance aspects of tractor / combine harvester/power tiller	II,III,IV	e,h,k,l	1	0	0	1

VALUE ADDED COURSES IN AGRICULTURAL ENGINEERING

Code No.	Course	Objectives & Outcomes		L	T	P	C
		PEOs	POs				
15AGXA	Organic Farming	II	e,j	-	-	-	-
15AGXB	Extension Education and Transfer of Technology	IV	e,h,k	-	-	-	-