

## I SEMESTER

S. No	Course code	Course Title	Credit load
1	AGR 101	Fundamentals of Agronomy and Agricultural Heritage	1+1
2	BIC 101	Fundamentals of Plant Biochemistry	2+1
3	SAC 101	Fundamentals of Soil Science	2+1
4	FOR 111	Introduction to Forestry	1+ 1
5	ENG 101	Comprehension & Communication Skills in English	1+1
6	HOR 111	Fundamentals of Horticulture	1+1
7	MAT 111	Elementary Mathematics	1+1
8	PBG 101	Introduction to Agricultural Botany	1+1
9	AEX101	Rural Sociology & Educational Psychology	2+0
10	TAM101/ ENG101	,yf;fpa';fspy; ntshz;ika[k; mwptpay; jkpH; gadhf;fKk; / Development Education	0+1
11	NSS/NCC 101	NSS/NCC	0+1*
12	PED 101	Physical Education	0+1*
13	PED102	Yoga for human excellence	0+1*
		Total	<b>12+9=21</b>
		<b>*Non-gradial courses compulsory courses</b>	

## II Semester

1	SWE 101	Soil and Water Conservation Engineering	2+1
2	CRP 101	Fundamentals of crop Physiology	2+1
3	AEC 101	Fundamentals of Agricultural Economics	1+1
4	PAT 101	Fundamentals of Plant Pathology	2+1
5	AEX 102	Fundamentals of Agricultural Extension Education	2+1
6	FSN 111	Principles of Food Science and Nutrition	1+1
7	FMP 111	Farm Machinery and Power	1+1
8	AGR 102	Introductory Agro-meteorology & Climate Change	1+1
9	HOR 112	Production Technology for Fruit and Plantation Crops	1+1
10	RSG 101	Geo- informatics for Precision Farming	1+0
11	NSS/NCC 101	NSS/NCC	0+1*
12	PED 101	Physical Education	0+1*
		Total	<b>14+9=23</b>
		<b>*Non-gradial courses compulsory courses</b>	

### III Semester

1	AGM 201	Fundamentals of Microbiology	2+1
2	AEN 201	Fundamentals of Entomology	2+1
3	SST 201	Principles of Seed Technology	2+1
4	AGR 201	Crop Production Technology – I ( <i>Kharif</i> crops)	1+1
5	HOR 211	Production Technology for Vegetables and Spices	1+1
6	ENS 201	Environmental Studies & Disaster Management	2+1
7	AMP 201	Livestock and Poultry Management	2+1
8	AEC 201	Farm Management, Production & Resource Economics	1+1
9	SAC 201	Soil Resource Inventory	1+1
10	AGR 202	Study tour Non gradial compulsory	0+1*
11	NSS/NCC 101	NSS/NCC	0+1*
11	PED 101	Physical Education	0+1*
		Total	<b>14+9=23</b>
		<b>*Non-gradial courses compulsory courses</b>	

### IV Semester

1	PBG 201	Fundamentals of Genetics	2+1
2	AEX 201	Communication Skills and Personality Development	1+1
3	MAT 211	Statistical Methods	1+1
4	PAT 201	Principles of plant disease management	1+1
5	AEN 202	Beneficial insects and Principles of Insect pest management	2+1
6	AGR 203	Crop Production Technology – II ( <i>Rabi</i> crops)	1+1
7	ERG 211	Renewable Energy	1+0
8	AGR 204	Farming System & Sustainable Agriculture	1+1
9	SAC 202	Problematic soils and their management	2+0
10	HOR 212	Production Technology for Ornamental Crops, MAP and Landscaping	1+1
11	ANM 201	Introductory Nematology	1+1
12	NST 201	Fundamentals and Applications of nanotechnology	1+0
13	NSS/NCC 101	NSS/NCC	0+1*
14	PED 101	Physical Education	0+1*
		Total	<b>15+9=24</b>
		<b>*Non-gradial courses compulsory courses</b>	

## V Semester

1	PBG 301	Fundamentals of Plant Breeding	2+1
2	AEC 301	Agricultural Marketing Trade & Prices	2+1
3	AGM 301	Soil and Applied Microbiology	1+1
4	PAT 301	Diseases of Field and Horticultural crops and their management	1+1
5	AEX 301	Entrepreneurship Development and Business Communication	1+1
6	AGR 301	Practical Crop Production - I ( <i>Kharif</i> crops)	0+2
7	HOR 311	Post harvest management and value addition of fruits and vegetable crops	1+1
8	SAC 301	Manures, Fertilizers and Soil Fertility Management	2+1
9	ABT 301	Plant Bio technology	2+1
10	AGR 302	Rainfed Agriculture & Watershed Management	1+1
11	NCC 101	NCC*	
		<b>Total</b>	<b>13+11=24</b>
		<b>*Non-gradial courses compulsory courses</b>	

## VI Semester

1	AEC 302	Agricultural Finance and Co-Operation	2+1
2	PAT 302	Diseases of Field crops and Horticultural crops and their management	2+1
3	COM 311	Agriculture Informatics	1+1
4	ENS 301	Environmental Pollution and Management	1+1
5	APE 311	Post-Harvest and Food Engineering	1+1
6	AEN 301	Pests of Crops and Stored grain and their Management	2+1
7	AGR 303	Practical Crop Production - II ( <i>Rabi</i> crops)	0+2
8	AGR 304	Principles of organic Farming	1+1
9	PBG 302	Crop Improvement	2+1
10	OPT 301	Optional course	1+1
11	NCC 101	NCC*	
		<b>Total</b>	<b>13+11=24</b>
		<b>*Non-gradial courses compulsory courses</b>	

## VII Semester

<b>(RAWE Programme)</b>			
S. No.	<b>Rural Agricultural Work Experience and Agro-industrial Attachment(RAWE &amp;AIA)</b>		
	<b>Activities</b>	<b>No. of weeks</b>	<b>Credit Hours</b>
1	General orientation & On campus training by different faculties	1	20
2	Village attachment/ Unit attachment in Univ./ College. KVK/ Res. Stn.	8	
3	Agro-Industrial Attachment	2	
4	Project Report Preparation, Presentation and Evaluation	2	1
Total weeks for RAWE & AIA		13	<b>21</b>

## VIII Semester

<b>(Experiential Learning Programme/ HOT)</b>				
<b>ICAR</b>			<b>TNAU</b>	
	<b>Module</b>	<b>Credit Hrs.</b>	<b>Module</b>	<b>Credit Hrs.</b>
1.	Module-I	0+10	1. Module-I	0+10
2.	Module-II	0+10	2. Module-II	0+10
	<b>Total</b>	<b>20 (0+20)</b>	<b>Total</b>	<b>0+20</b>

Semester	TNAU Courses
I	12+9=21
II	14+9=23
III	14+9=23
IV	15+9=24
V	13+11=24
VI	13+11=24
VII	0+21=21
VIII	0+20=20
<b>Total</b>	<b>81+99=180</b>

**DEPARTMENT WISE DISTRIBUTION OF COURSES**

Department	ICAR		TNAU	
	No. of courses	Credit Hours	No. of courses	Credit Hours
Agronomy	9	19	9	18
Nano tech & RSGIS	1	2	2	2
Plant Breeding and Genetics	5	13	5	14
Soil Science and Agrl. Chemistry	3	8	4	10
Entomology	3	9	3	9
Nematology	--	--	1	2
Economics	4	10	4	10
Agrl. Engineering	4	8	4	8
Plant Pathology	4	13	4	10
Horticulture	5	10	4	10
Food Science	1	2	1	2
Agrl. Extension	4	9	4	9
Bio chemistry & Bio technology	1	3	2	6
Crop physiology	1	3	1	3
Agrl. microbiology	1	2	2	5
Environmental Science	1	3	2	5
Forestry	1	2	1	2
Statistics	1	2	1	2
Maths	1	2	1	2
Computer Science	1	2	1	2
IPR	1	1	--	--
Animal Husbandry	1	4	1	3
Language	1	2	3	3
NSS/NCC/Yoga/PED	3	Non gradial	3	Non gradial
Tour	2	Non gradial	2	Non gradial
Project	--	--	1	1
RAWE	1	20	1	20
Experiential learning	2	20	2	20
Human values and ethics	1	1	--	--
Elective course	3	9	1	2
	66	180/183	69	180

## LIST OF EXPERIENTIAL COURSES

<b>S. No.</b>	<b>Titles of the module</b>	<b>Credits</b>
1.	Bio-agents and Bio-fertilizer production	0+10
2.	Hybrid Seed Production in Vegetables Crops	0+10
3.	On Farm Advisory for Soil Health, Water Quality & Plant Nutrition	0+10
4.	Commercial Beekeeping	0+10
5.	Commercial Cocoon Production	0+10
6.	Commercial Plant Tissue Culture	0+10
7.	Commercial Nursery Technology of Horticultural Crops	0+10
8.	Commercial Landscape Gardening	0+10
9.	Commercial production of Bio-control agents	0+10
10.	Commercial mushroom production	0+10
11.	Commercial broiler and layer production	0+10
12.	Commercial seed production	0+10
13.	Hybrid pearl millet seed production	0+10
14.	Hybrid rice parental line seed production	0+10
15.	Managerial skill for Agribusiness	0+10
16.	Export Import and Protection of Property Rights in Agriculture	0+10
17.	Development of Integrated Farming system Model	0+10
18.	Protected cultivation of Vegetable crops	0+10
19.	Composting technology	0+10
20.	Utilization of Rearing Bed Refuse, Pupae and Unreelable Cocoons	0+10
21.	Agri-business management	0+10

Optional courses : A student can select one optional course out of the following offered during VI semester.

<b>Optional courses for 2 credits</b>		
<b>S.N.</b>	<b>Courses</b>	<b>Credit Hours</b>
1.	Applied Crop Physiology	2 (1+1)
2.	Designer fertilizer Production	2 (1+1)
3.	Rejuvenation of Deteriorated lands	2 (1+1)
4.	Soilless crop production	2 (1+1)
5.	Instrumental methods of analysis	2 (1+1)
6.	Seed entrepreneurship skill development and management	2 (1+1)
7.	Production Technology of Field Crops	2 (1+1)
8.	Weed and water management	2 (1+1)
9.	Plant Genetic Resources Collection, Conservation and Utilization	2 (1+1)
10.	Commercial Production of Nematode Antagonistic bio-agents	2 (1+1)
11.	Downstream Processing for Industrially Important Microbial Products	2 (1+1)
12.	Microbial Enzymes	2 (1+1)
13.	Microbial Quality and Safety of Foods	2 (1+1)
14.	Plant –Microbe Interaction	2 (1+1)
15.	Quality Control of Bio-inoculants	2 (1+1)
16.	Crop and Pesticide chemistry	2 (1+1)