

6.4.5 Conduct of practical and hands-on-training at Dept. of Agril. Entomology

a. UG degree programme

Sr. No.	Course No.	Course Title	Skills learned through conduct of practical and hands-on-training
Department of Agronomy			
1	Agro 111	Principles of Agronomy	<ol style="list-style-type: none"> 1. To identify crop seeds & crop plants at different stages and weeds 2. To identify primary & secondary tillage implements and fertilizers 3. Preparation of FYM, compost, green manuring and vermicompost
2	AGRO 112	Agricultural Meteorology	<ol style="list-style-type: none"> 1. To acquaint with different Meteorological Instruments and how to take the observations.
3	AGRO 113	Introductory Agriculture	<ol style="list-style-type: none"> 1. To calculate the balance sheet of agriculture business
4	AGRO 124	Water management including micro irrigation	<ol style="list-style-type: none"> 1. To determine the moisture content in soil and know the stage of scheduling irrigation. 2. To calculate the water requirement of different crops 3. To handle the drip and sprinkler irrigation systems
5	AGRO 235	Crop production I (Kharif crops)	<ol style="list-style-type: none"> 1. Preparation of seed beds and irrigation layouts for kharif crops 2. To know the method of transplanting the rice crop 3. Efficient method of fertilizer application
6	AGRO 236	Practical crop production I (kharif crops)	<ol style="list-style-type: none"> 1. Practically cultivation practices of soybean crop
7	AGRO 247	Crop production II (Rabi crops)	<ol style="list-style-type: none"> 1. Preparation of seed beds and irrigation layouts for kharif crops 2. To know the method of transplanting the rice crop 3. Efficient method of fertilizer application
8	AGRO 248	Practical crop production II (Rabi crops)	<ol style="list-style-type: none"> 1. Practically cultivation practices of wheat crop
9	AGRO 359	Weed management	<ol style="list-style-type: none"> 1. To identification of weeds and their control 2. Handling of herbicides. Spraying of herbicides and handling of different spraying equipments
10	AGRO 3610	Farming systems and sustainable	<ol style="list-style-type: none"> 1. Preparation of cropping schemes for dryland and irrigation situation

		agriculture	2. Preparation of integrated farming system models for wet land and dryland
11	AGRO 3611	Organic and rainfed farming	1. Growing of vegetable crops organically. 2. Control of pest and diseases organically
1 2	RAWE 4712	Agronomy	1. To conduct demonstrations on new agronomical technology viz. Weed management, Biofertilizer, azolla, BGA, VAM application, 2. Organisation of Farmers Ralley to transfer new agriculture technology.
Department of Agril. Botany			
1	BOT-122	Principles of Genetics	1. To understand genetics of different plant characters for crop improvement
2	BOT-233	Principles of Plant Breeding	1. To acquaint flower biology and hybridization techniques of crops 2. To acquaint with Principles and methods for crop improvement.
3	BOT-234	Crop Physiology	1. To know the different physiological process of crops
4	BOT-245	Breeding of Field and Horticultural crops	1. To acquaint with Principles and methods for improvement in Field and Horticultural crops.
5	BOT-356	Principles of Plant Biotechnology	1. To acquaint with media preparation , inoculation and various techniques on different crops.
6	BOT-367	Principles of Seed Technology	1. To know the genetic purity of different crops 2. Seed production techniques of different crops 3. To know the different classes of seed.
Department of Agril. Economics			
1	ECON 121	Principles of Agricultural Economics	1. To acquaint with principles of Agricultural Economics 2. To acquaint with supply , demand and welfare economics
2	ECON 232	Production Economics and farm management	1. To acquaint with concepts of production economics 2. To acquaint with farm management and linear programming
3	ECON 243	Agricultural finance and cooperation	1. To acquaint with concepts of Agril. Finance 2. To acquaint with project appraisal, Agril. Credit and Agril. cooperation
4	ECON 354	Agricultural Marketing, Trade and Prices	1. To acquaint with concepts of Agri marketing 2. To acquaint with functions of marketing
5	ECON 365	Agri business	1. To acquaint with system of Agri

		Management	business 2. To acquaint with Agrobased industries and guidelines for project preparation reports.
6	RAWE ECON 476	Agricultural Economics	2. To implement knowledge regarding identification and management of pests at host farmers field
7	AEL ENT 486	Commercial Sericulture	2. To acquaint with cost of cultivation of mulberry 3. To acquaint with project report for sericulture unit
8	AEL HORT 486	Commercial Vegetable Production	1. To acquaint with cost of cultivation of vegetables 2. To acquaint with project report for commercial vegetable unit
9	AEL PATH 486	Commercial Mushroom Production	1. To acquaint with cost of cultivation of mushroom 2. To acquaint with project report for mushroom unit
10	AEL AHDS 486	Commercial Broiler Production	1. To acquaint with cost of cultivation of broiler 2. To acquaint with project report for broiler unit
Department of Agril. Engg			
1	ENGG- 121	Fundamentals of Soil & Water Conservation Engineering	1. To measure area & locate field boundaries 2. To prepare map 3. To find reduced levels of points 4. To calculate runoff quantities 5. To study runoff storage structures & erosion control measures 6. Design of farm pond
2	ENGG- 232	Introduction to computer Application	1. Introduction to Computer 2. Operations skills in MS word, excel & power point 3. Skills in use of Internet
3	ENGG- 353	Farm Power & Machinery	1. To identify parts of IC engine, tractor, systems, equipments 2. Engine Power calculations 3. To identify troubles & trouble shooting in tractor & equipments 4. To calculate draft, soil resistance, power requirement for farm operation, area covered
4	ENGG- 364	Protected Cultivation & Post Harvest Technology	1. To identify tools & equipments used in greenhouse, seed processing 2. Irrigations systems for Green house 3. Design of Bag storage structure
5	RAWE ENT 475	Agril. Engineering	4. To implement knowledge regarding soil & water conservation, modern tools, equipments & machinery for farm operations on host farmers field
Department of Agril. Entomology			
1	ENT 231	Insect Morphology	1. To identify insects

		and Systematic	<ol style="list-style-type: none"> 2. To preserve insects 3. To dissect different systems of insect 4. To identify different orders of insect on the basis of characters
2	ENT 242	Insect Ecology, Integrated Pest Management Including Beneficial Insects	<ol style="list-style-type: none"> 1. To acquaint with different methods of insect-pest management 2. To acquaint with Apiculture, Sericulture and Lacculture
3	ENT 353	Crop Pests and Stored Grain Pests and Their Management	<ol style="list-style-type: none"> 1. To identify damage caused by pests infesting field crops, horticultural crops and stored grains 2. To manage pests infesting field crops, horticultural crops and stored grains
4	ENT 364	Introductory Nematology	<ol style="list-style-type: none"> 1. To acquaint with different PPNs, their damage and management
5	RAWE ENT 475	Crop Protection	<ol style="list-style-type: none"> 2. To implement knowledge regarding identification and management of pests at host farmers field
6	AEL ENT 486	Commercial Sericulture	<ol style="list-style-type: none"> 1. To acquaint with mulberry cultivation techniques 2. To rear mulberry silkworms for cocoon production
Department of AHDS			
1	ASDS-111	Livestock Production & Management	<ol style="list-style-type: none"> 4. To know different livestock breeds 5. To acquaint the management practises of live stock 6. To know the feeding practices of animal 7. To know the economics of livestock farming 8. To maintain the animal at different climatic condition
2	ASDS-242	Livestock Breeds & Nutrition	<ol style="list-style-type: none"> 1. To acquaint with different breeding policies 2. To improve the livestock through breeding strategies 3. To know balance ration for different animal 4. To know the feeding strategies for increasing livestock productivity
3	ASDS-353	Technology of Milk & Milk Products	<ol style="list-style-type: none"> 1. To know the nutritional importance of different milk products 2. To learn the techniques for preparation of different milk products 3. To identify different adulterants in milk and milk products 4. To know the different milk processing techniques 5. To developed entrepreneurship through dairying
4	ASDS-	Sheep & Goat	<ol style="list-style-type: none"> 1. To know different breeds of sheep and goat

	364	Production	<ol style="list-style-type: none"> 2. To acquaint the management practises of sheep and goat 3. To know the feeding practices of sheep and goat 4. To know the economics of sheep and goat farming 5. To developed entrepreneurship through sheep and goat farming
5	ASDS-475 (New) RAWE	Animal Science and Dairy Science	<ol style="list-style-type: none"> 1. To observe, compare and implement knowledge regarding livestock rearing and techniques of milk and milk product production at host farmers field
6	AEL- ASDS-486	Commercial Broiler Production	<ol style="list-style-type: none"> 1. To developed entrepreneurship through Commercial Broiler Production
Department of Extension Education			
1	EXTN 122	Dimensions of Agricultural Extension	<ol style="list-style-type: none"> 1. To conduct village survey 2. To get information about Krishi vidnyan mandal 3. To know the functioning village gram panchayat 4. To know the conduct of PRA in village
2	EXTN 353	Extension methodologies for transfer of agril. technology	<ol style="list-style-type: none"> 1. To identify the problems related to project proposals 2. To know the conduct of Method Demonstration 3. To the organization of Group discussion 4. To prepare Radio & Television script. 5. To prepare Leaflet, pamphlet, Folder 6. To Handle PAE , Camera,LCD etc
3	EXTN 364	Entrepreneurship development & communication skills.	<ol style="list-style-type: none"> 1. To conduct market survey 2. To prepare Advertise & News 3. To prepare project proposal 4. To prepare PPT 5. To know about body posture, body language& eye contact 6. To conduct mock interview.
4	RAWE EXTN 475	Extension Education	<ol style="list-style-type: none"> 1. To Conduct PRA 2. To identify Gap in production 3. To conduct Techno –Social survey of village & host farmer.
5	AEL EXTN 486	Commercial Sericulture	<ol style="list-style-type: none"> 1. To conduct Techno –Social & economic survey of sericulture farmer. 2. To visit sericulture unit.
6	AEL EXTN 486	Commercial Broiler Production	<ol style="list-style-type: none"> 1. To conduct Techno economic survey of poultry owners. 2. To visit commercial poultry units.
7	AEL EXTN 486	Vegetable Production	<ol style="list-style-type: none"> 1. To conduct survey of vegetable growers 2. To visit shed net vegetable units

8	AEL EXTN 486	Mushroom production technology	<ol style="list-style-type: none"> 1. To conduct survey of Mushroom Producers 2. To visit Mushroom production units
Department of Horticulture			
1	HORT- 111	Production Technology of Fruit crops	<ol style="list-style-type: none"> 1. To identify and use different tools and equipments used in cultivation of Horticultural crops 2. To develop skill in different plant propagation techniques like cutting, layering, budding and grafting. 3. To develop the skill of different operations in fruit crop cultivation like advance system of planting, irrigation, training, fertilizer application and use of PGR.
2	HORT- 232	Production Technology of Vegetable and Flower crops	<ol style="list-style-type: none"> 1. Identification of different vegetables & ornamental plants. 2. To develop skill of raising of seedlings of vegetable and seasonal flowers and transplanting. 3. To develop garden features and planting layout of different ornamental and kitchen gardens. 4. To develop skill in different intercultural operations in vegetable and flower crops like training, pruning, staking and earthing up, etc. 5. To demonstrate the skill of judging maturity, harvesting methods and post harvest operations like cleaning, grading, trimming, packing, etc. In flower and vegetable crops.
3	HORT- 243	Production Technology of Spices, Aromatic, medicinal and plantation crops.	<ol style="list-style-type: none"> 1. To identify different spices, Aromatic, medicinal and plantation crops. 2. To develop knowledge regarding processing and curing of spices, value addition of medicinal plants.
4	HORT- 364	Post Harvest Technology of Fruits and Vegetable crops.	<ol style="list-style-type: none"> 1. To develop skill to judge the maturity of different fruits and vegetable crops. 2. To develop skill in value addition by adopting different preservation techniques in fruits and vegetable crops like preparation of jam, Jelly, marmalade, cordials, ketchups, pickles, candy, etc.
5	RAWE HORT475 (N)		<ol style="list-style-type: none"> 1. To develop skill through demonstration in different horticultural practices followed in cultivation of fruits, vegetables and flower crops.

			2. To workout cost of cultivation and the B:C ratio through practicals in different horticultural crops grown on farmer's field.
	AEL HORT - 486	Commercial Vegetable Production.	1. To get practical experience on cultivation of commercial crops. 2. To develop the skill of entrepreneur in the field of vegetable production.
Department of Plant Pathology			
1	PATH-111	Introductory Plant Pathology	1. To acquaint with different Laboratory instruments used in Plant Pathology 2. To identify symptoms produced by fungi ,bacteria , Viruses and flowering parasite in different crops 3. To collect and preserve different disease infected samples 4. To prepare media for growth of fungi and isolation of fungi from infected disease sample.
2	MIBO-121	Agriculture Microbiology	1. To acquaint with handling of Microscope and its different parts 2. To prepare different media for growth of different bacteria. 3. To isolate bacteria from infected disease samples,rhizosphere and from root nodule. 4. To acquaint with different sterilization method
3	PATH-232	Principles of Plant Pathology	1. To acquaint with different group of fungicide and their use 2. To acquaint with different plant protection equipments and their maintenance 3. To acquaint with safe handling of fungicides
4	PATH-243	Diseases of Field Crops and Their Management	1. To identify different diseases of field crops. 2. To manage diseases caused by field crops .
5	PATH-354	Diseases of Horticultural Crops and Their Management	1. To identify different diseases of horticultural crops and vegetables 2. To manage diseases caused by horticultural crops and vegetables
6	RAWE PATH 475	Plant Pathology	4. To impart knowledge regarding identification and management of diseases on host farmers field
7	AEL PATH 486	Mushroom Production Technology	4. To acquaint with cultivation of mushroom 5. To acquaint with preparation of spawn
Department of SSAC			

1	SSAC-111	Introduction to Soil Science	<ol style="list-style-type: none"> 1. To identify rocks and minerals 2. Soil Sampling 3. Soil Profile sampling 4. Soil and water analysis
2	SSAC-122	Soil Chemistry, Soil Fertility and Nutrients Management	<ol style="list-style-type: none"> 2. Soil and fertilizes analysis 3. Fertilizer application as per STFR
3	SSAC-243	Manures , fertilizers and agrochemicals	<ol style="list-style-type: none"> 1. Identification manures ,fertilizers and agrochemical 2. Identification of adulteration in fertilizers
4	SSAC-354	Biochemistry	<ol style="list-style-type: none"> 1.
5	RAWE SSAC-475	Soil Science and Agricultural Chemistry	<ol style="list-style-type: none"> 1. Vermicomposting 2. Composting 3. Application of fertilizer 4. Soil Sampling
6	SSAC-111(New)	Fundamental of soil science	<ol style="list-style-type: none"> 1 To identify rocks and minerals 2 Soil Sampling 3 Soil Profile sampling 4 Soil water analysis