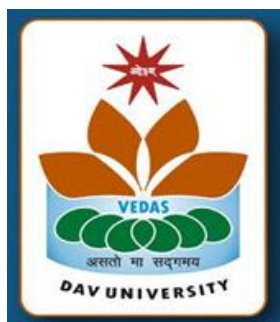


DAV UNIVERSITY, JALANDHAR



FACULTY OF AGRICULTURAL SCIENCES
AND
TECHNOLOGY

COURSE CURRICULUM

FOR

B.Sc. AGRICULTURE (HONOURS)

(4 Years Course)

1st to 8th SEMESTER

Examinations 2015–2016 Session

Syllabi Applicable For Admissions in 2015

1. **Mode of Admission:** Entrance examination for seats filled by ICAR. DAVU may follow entrance examination or merit at 10+2 or a combination.
2. **Reservation of seats:** Reservation of seats shall be governed by the rules of State government.
3. **Semester Duration:** The minimum duration of 110 working days, consisting of 95 instructional days and 15 examination days.
4. **Credit Definition:** One credit is defined as one-hour lecture/2 hours lab/3 hours field work per week.
5. **Attendance**
 - 70 percent
 - Relaxation in minimum attendance requirements should be given only in the case of indoor hospitalization.
6. **Maximum Permissible Course Workload**

27 credits per semester
7. **Course Curriculum and minimum credits requirement**
 - The minimum credit requirement for the graduated degree should be 160 credits excluding non-credit courses for language, physical education/NCC/NSS

Scheme of Courses B.Sc Agriculture (Hons) (Program ID-1)
B.Sc. Agriculture (Hons)
Semester 1

S.No	Paper Code	Course Title	L	T	P	Cr	Course Type
1	AEC102 *	General Botany for Agriculture	2	0	2	0	Compulsory Foundation
2	AGR 110	Introductory Nematology	1	0	2	2	Core
3	AGR 117	Fundamentals of Agriculture, Agronomy and Agricultural Meteorology	3	0	2	4	Core
4	AGR 113	Introduction to Soil Science	2	0	2	3	Core
5	AGR 107	Principles of Agricultural Economics	2	0	0	2	Core
6	AGR 106	Principles of Genetics	2	0	2	3	Core
7	AGR 115	Plant Pathogens and Principles of Plant Pathology	3	0	2	4	Core
8	AGR 114	Fundamentals of soil water conservation and engineering	2	0	2	3	Core

L: Lectures T: Tutorial P: Practical Cr: Credits

Scheme of Courses B.Sc Agriculture (Hons) (Program ID-1)
B.Sc. Agriculture (Hons)
Semester 2

S.No	Paper Code	Course Title	L	T	P	Cr	Course Type
1	AGR 126	Agricultural Microbiology	2	0	2	3	Core
2	AGR 122	Water management including micro irrigation	2	0	2	3	Core
3	CSA 159	Workshop on Office Automation	0	0	4	2	Compulsory Foundation
4	AGR 125	Dimensions of Agricultural Extension	1	0	2	2	Core
5	AGR 127	Soil Chemistry, Soil Fertility and Nutrient Management	2	0	2	3	Core
6	ENG 153A	Comprehension and Communication Skills in English	3	1	2	4	Compulsory Foundation
7	AGR 123	Principles of Seed Technology	2	0	2	3	Core
8	ECO 151	Statistics	1	0	2	2	Compulsory Foundation
9	AGR 126	Agricultural Microbiology	2	0	2	3	Core

L: Lectures T: Tutorial P: Practical Cr: Credits

**Scheme of Courses B.Sc Agriculture (Hons) (Program ID-1)
B.Sc. Agriculture (Hons)**

Semester 3

S.No	Paper Code	Course Title	L	T	P	Cr	Course Type
1	AGR 211	Field Crops-I (<i>Kharif</i>)	2	0	2	3	Core
2	AGR 213	Insect Morphology and Systematics	2	0	2	3	Core
3	AGR215	Production Technology of Vegetables and Flowers	2	0	2	3	Core
4	AGR 212	Principles of Plant Breeding	2	0	2	3	Core
5	AGR 217	Organic Farming	2	0	2	3	Core
6	AEC 211	Agricultural Finance and Co-operation	1	0	2	2	Core
7	AGR 218	Crop Physiology	2	0	2	3	Core
8	AGR 216	Livestock Production and Management	2	0	2	3	Core

L: Lectures T: Tutorial P: Practical Cr: Credits

**Scheme of Courses B.Sc Agriculture (Hons) (Program ID-1)
B.Sc. Agriculture (Hons)**

Semester 4

S.No	Paper Code	Course Title	L	T	P	Cr	Course Type
1	AGR 221	Field crops-II (<i>Rabi</i>)	2	0	2	3	Core
2	AEC 221	Agricultural marketing, Trade and Prices	1	0	2	2	Core
3	AGR 223	Insect Ecology and Integrated pest management including beneficial insects	2	0	2	3	Core
4	AGR 220	Farm power and machinery	1	0	2	2	Core
5	AGR 225	Diseases of Field Crops and their management	2	0	2	3	Core
6	AGR 229	Manures and Fertilizers	2	0	2	3	Core
7	AGR 226	Production technology of spices, Aromatics Medicinal and Plantation crops	2	0	2	3	Core
8	AGR 224	Protected cultivation and Post-harvest Technology	1	0	2	2	Core

L: Lectures T: Tutorial P: Practical Cr: Credits

Educational Tours: One educational tour of 2 Credit hours (0+2 NC)

Semester 5

S.No	Paper Code	Course Title	L	T	P	Cr	Course Type
1	AGR 311	Farming Systems and Sustainable Agriculture	1	0	2	2	Core
2	AGR 312	Principles of Plant Biotechnology	2	0	2	3	Core
3	AGR 313	Crop Pests and stored grain pests and their management	2	0	2	3	Core
4	AGR 314	Fundamentals of Agri Business Management (Including product development, Appraisal and Monitoring)	1	0	2	2	Core
5	AGR 315	Practical crop production I (Cereals, Pulses and Fodder crops)	0	0	2	1	Core
6	AGR 316	Fundamentals of Rural Sociology and Educational Psychology	2	0	0	2	Core
7	AGR 317	Post-harvest management and value addition of fruits and vegetables	1	0	2	2	Core
8	AGR 319	Breeding of Field / Horticultural crops	2	0	2	3	Core
9	AGR 310	Production technology of fruit crops	2	0	2	3	Core

L: Lectures T: Tutorial P: Practical Cr: Credits

**Scheme of Courses B.Sc Agriculture (Hons) (Program ID-1)
B.Sc. Agriculture (Hons)**

Semester 6

S.No	Paper Code	Course Title	L	T	P	Cr	Course Type
1	AGR 321	Production Economics and Farm management	1	0	2	2	Core
2	AGR 322	Extension Methodologies for Transfer of Agricultural Technology	1	0	2	2	Core
3	AGR 323	Biochemistry	2	0	2	3	Core
4	AGR 324	Practical crop production II (oil seeds and commercial crops)	0	0	2	1	Core
5	AGR 325	Weed management	1	0	2	2	Core
6	AGR 326	Renewable Energy	1	0	2	2	Core
7	AGR 327	Entrepreneurship Development	1	0	2	2	Core
8	AGR 328	Disease of Horticultural crops and their management	2	0	2	3	Core
9	EVS 151*	Environmental Science	1	0	2	0	Compulsory Foundation

L: Lectures T: Tutorial P: Practical Cr: Credits

Educational Tours: One educational tour of 2 Credit hours (0+2 NC)

**Scheme of Courses B.Sc Agriculture (Hons) (Program ID-1)
B.Sc. Agriculture (Hons)**

RuralAgriculturalWorkExperience(RAWE)- INTERNSHIP

Semester 7

S.No	Paper Code	Course Title	L	T	P	Course Type
1	AGR 411	Crop Production	0	1	5	Core
2	AGR 412	Crop Protection	0	1	4	Core
3	AGR 413	Rural Economics	0	1	3	Core
4	AGR 414	Extension Programme	0	1	4	Core
5	AGR 415	Research Station / KVK / DAATT Centre activities and Attachment to the Agro-based industries	0	1	4	Core

L: Lectures T: Tutorial P: Practical Cr: Credits

RuralAgriculturalWorkExperience(RAWE): Under this program two models are suggested and DAVU could choose anyone depending upon need assessment.

Sr.	RAWEModelI	Duration(Week)
1	Orientation	1
2	Villageattachment	17
3	ResearchStation/KVK/DAATTCenteractivitiesand attachmenttotheAgro-basedindustries	4
4	Projectreportpreparationandexamination	2

Sr.	RAWEModelII	Duration(Week)
1	Orientation	1
2	Villageattachment	7
3	Agri-clinics/PlantHealthClinics/Experientiallearning/ IndustrialAttachment	14
4	Projectreportpreparationandexamination	2

RAWEP Attachment with Agro-based Industries: During RAWE Program the students will undergo internship in any one of the following industries/companies/institutes for a period of twelve weeks (the list is only suggestive and need based/locations specific industries may be included).

- Seed industries/companies
- Fertilizer industries
- Pesticides industries
- Biotechnological industries (Tissue Culture labs)
- Biopesticides industries
- Commercial nurseries/landscaping units
- Sericulture units
- Food processing units
- Agricultural finance Institutions/Banks/Credit Societies etc.
- Non-Governmental organizations

Evaluation of RAWE Programme

Attendance: Minimum attendance for this programme - 85%.

Records: Students shall complete the record work based on daily field observation notebooks and weekly diaries maintained by them.

Evaluation Procedure: The students shall be evaluated by Course Coordinator as well as by a designated evaluation Committee.

Note: i) The duration of the RAWEP is 24 weeks with a weightage of 24 credits;
ii) Whenever facilities are not available for industrial training and/or agricultural clinics, the duration of vocational training may be increased to that extent; iii) RAWEP can be implemented either in the VII or VIII semester as per convenience.

**Scheme of Courses B.Sc Agriculture (Hons) (Program ID-1)
B.Sc. Agriculture (Hons)**

Semester 8

Courses for Experiential Learning	20
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Courses for Experiential Learning: A student has to register minimum of 20 credits with major load in one area of electives and rest from among one/two areas of electives in the eighth semester.

Sr.	Title of the module	Credits
I	Crop Production	
1	Seed Production Technology	3(1+2)
2	Remote Sensing GIS and Land use Planning	3(1+2)
3	Integrated Farming System	3(1+2)
4	Water Management (Watershed Micro-irrigation Problematic Water)	4(1+3)
5	Soil Management (conservation Problematic soil, Soil quality)	4(1+3)
II	Crop Protection	
1	IPM and IDM (Pest Disease Scouting)	4(2+2)
2	Management of Post-Harvest insect-pests and diseases	3(1+2)
3	Non-insect pests and their Management	3(1+2)
4	Apiculture	2(0+2)
5	Mushroom (cultivation)	2(0+2)
6	Bio-control agencies and bio-pesticide (mass multiplication and uses)	3(1+2)
7	Pesticides and Plant Protection equipment	3(1+2)
8	Disease of Horticultural crops and their management	3(2+1)
III	Horticulture	
1	Commercial Vegetable Production	3(1+2)
2	Commercial Floriculture	3(1+2)
3	Commercial Fruit Production	3(1+2)
4	Nursery management of horticultural crops	4(1+3)
5	Protected cultivation of horticultural crops and Seed production of vegetables and flowers	4(1+3)
6	Processing and value addition of horticultural crops	3(1+2)
IV	Post-Harvest Technology and Value addition	
1	Post-harvest Technology of Horticultural crops	3(1+2)
2	Unit operation for quality value addition processing and development of new products	4(1+3)
3	Post-harvest technology of spices, plantation crops, medicinal and aromatic crops	4(1+3)
4	Integrated storage management of fruits, flowers and vegetables	3(1+2)
5	Post-harvest handling of cut flowers and dry flowers	3(1+2)
6	Processing of cereals, pulses and oil seed crops including biodiesel	3(1+2)
7	Dairy Products Technology	3(2+1)
V	Agri-Business Management	
1	Information & Communication Management	3(1+2)
2	Management of Agro-based industry	4(1+3)
3	Marketing Management (Agricultural Import-Export Policy of Govt. of India & Business Laws)	3(1+2)
4	Financial Management of Agri-Business	4(1+3)
5	Natural Resources Economics and Management	3(1+2)

6	Projectformulation,EvaluationandMonitoring	3(1+2)
VI	SocialSciences	
1	AgriculturalJournalism	3(1+2)
2	VisualsandGraphicCommunications	3(1+2)
3	CyberExtension	2(1+1)
4	BehavioralSkills	3(1+2)
5	Livestock,PoultryandFishMarketing	3(1+2)
6	FarmPlanningandBudgeting	3(1+2)
7	GovernmentPoliciesandProgrammesRelatedtoAgriculture	3(1+2)
8	Milk Processing	3(2+1)
VII	BasicSciences	
1	MolecularBreeding	3(1+2)
2	Planttissueculture	4(1+3)
3	RecombinantDNATechnology	3(1+2)
4	Bioinformatics	3(1+2)
5	Microbial&EnvironmentalTechnology	4(1+3)
6	MolecularDiagnostics	3(1+2)
VIII	CommercialAgriculture	
1	Commercialfloriculture	3(0+3)
2	Commercialfruitproduction	3(0+3)
3	Nurserymanagementofhorticulturalcrops	3(1+2)
4	Cultivationofcommerciallyimportantmedicinal&aromaticplants	2(1+1)
5	Commercialspicesproduction	3(1+2)
6	Productiontechnologyofeconomicforestplants	3(1+2)
7	Commercialseedproductiontechnologies	3(1+2)