

VISVA-BHARATI

ORDINANCE

B. Sc. (Ag.) Honours Course

1. There shall be a course of studies in Agriculture for the Honours Degree of Bachelor of Science in Agriculture B. Sc. (Ag.) Hons. at Palli Siksha Bhavana (Institute of Agriculture), the duration of which shall be of four years consisting of eight semesters. This course of studies will consist of six semesters of intramural teaching followed by one semester of Experiential Learning and another semester of Rural Awareness Work Experience (RAWE). The maximum allowable semesters for completion of B. Sc. (Ag.) Hons. course are sixteen (16).
2. The system, called the 'Course credit and semester', accommodates the under-graduate course having eight semesters in four years. Usually, the 1st, 3rd, 5th and 7th semesters shall run in the first half of an academic year and 2nd, 4th, 6th and 8th semesters shall run in the second half of the same academic year.
3. A candidate seeking admission to the B. Sc. (Ag.) Hons. shall produce a certificate that he/she has passed the two year Pre-Degree examination of Visva Bharati or an equivalent examination in general stream (science). To be eligible for admission a candidate must pass all the subjects at 10+2 examination with a combination of any four of the following subjects: Physics, Chemistry, Mathematics, Biology and Agronomy. However, for ICAR nominated candidates, the eligibility criteria adopted by ICAR will be followed as such.
4. Candidates admitted to the B. Sc. (Ag.) Hons course shall abide by the regulations regarding the courses curricula and the academic standards as prescribed by the University from time to time.
5. Students for the B. Sc. (Ag.) Hons. degree shall have to pass all the fixed and choice based courses of studies.
6. There will be a 10 point grading system of evaluation with grade point (GP) equal to percentage of marks obtained divided by 10.
7. There will be two types of courses- "credit course" and "non-credit course". Grade point obtained only in credit courses will be considered for the classification of results but marks/grade obtained in non-credit courses (e.g. Tagore Studies, Environmental Studies, etc) will not be considered for classification of results. Further, in credit courses there will be five types of courses- "Only theory course", "Only practical course", "Composite course", "Experiential Learning course" and "RAWE course". The composite course will consist of both theory and practical components.
8. One credit indicates one hour lecture or two hours laboratory practical or three hours field work per week.
9. Each course, except RAWE and Experiential Learning, bears a distinguishing code (three letters and three digits) which identifies the discipline, academic year and semester, respectively. The numbering system is as follows: The three letters stand for the concerned disciplines. The 1st digit indicates the academic year (1, 2, 3 or 4), the 2nd digit indicates the semester within the academic year (1 or 2) and the 3rd digit denotes the number of courses offered from the same discipline within a semester.
10. Semester wise distribution of courses and credit hours are given below.

Course Code	Name of the course	Course structure (credits)		
		Theory	Practical	Total
Semester I				
ACB 111	Biochemistry	2	1	3
AGR 111	Introductory Agriculture	1	0	1
AGR 112	Principles of Agronomy and Agricultural Meteorology	2	1	3
CMA111	Introduction to Computer and Applications	0	2	2
HOR 111	Production Technology of Fruit Crops	2	1	3
PPC 111	Agricultural Microbiology	2	1	3
SSC 111	Introduction to Soil Science	2	1	3
Total (7)		11	7	18

Semester II

AEC 121	Principles of Agricultural Economics	2	0	2
AEG 121	Fundamentals of Soil Water Conservation Engineering	2	1	3
AGR 121	Water Management including Micro-irrigation	2	1	3
ANS 121	Live Stock Production and Management	2	1	3
CPH 121	Crop Physiology	2	1	3
HOR 121	Production Technology of Vegetables and Flowers	2	1	3
PPC 121	Introductory Nematology	1	1	2
SSC 121	Soil Chemistry, Soil Fertility and Nutrition Management	2	1	3
Total (8)		15	7	22

Semester III

AEC 211	Agricultural Finance and Co-operation	1	1	2
AEN 211	Insect Morphology and Systematics	2	1	3
AEX 211	Fundamentals of Rural Sociology and Educational Psychology	2	0	2
AGR 211	Weed Management	1	1	2
AGR 212	Field Crops I (<i>Kharif</i>)	2	1	3
GPB 211	Principles of Genetics	2	1	3
PPC 211	Plant Pathogens and Principles of Plant Pathology	3	1	4
SSC 211	Manures, Fertilizers and Agro-chemicals	2	1	3
Total (8)		15	7	22

Semester IV

AEC 221	Agricultural Marketing, Trade and Prices	1	1	2
AEG 221	Farm Power and Machinery	1	1	2
AEN 221	Insect Ecology and Integrated Pest management (including Beneficial Insect)	2	1	3
AEX 221	Dimensions of Agricultural Extension	1	1	2
AGR 221	Field Crops II (<i>Rabi</i>)	2	1	3
GPB 221	Principles of Plant Breeding	2	1	3
HOR 221	Production Technology of Spices, Aromatic, Medicinal and Plantation Crops	2	1	3
PPC 221	Diseases of Field Crops and their Management	2	1	3
Total (8)		13	8	21

Semester V

AEC 311	Fundamentals of Farm Business Management (including Product development, Appraisal and Monitoring)	1	1	2
AEG 311	Protected Cultivation and Post Harvest Technology	1	1	2
AEX 311	Extension Methodologies for Transfer of Agricultural Technologies	1	1	2
AGR 311	Organic Farming	2	1	3
AGR 312	Practical Crop Production- I (<i>Kharif</i>)	0	1	1
AST 311	Statistics	2	1	3
GPB 311	Principles of Plant Biotechnology	2	1	3
PPC 311	Diseases of Horticultural Crops and their Management	2	1	3
Total (8)		11	8	19

Semester VI

AEC 321	Production Economics and Farm Management	1	1	2
AEG 321	Renewable Energy	1	1	2
AEN 321	Crop Pests and Stored Grain Pests and their Management	2	1	3
AEX 321	Entrepreneurship Development and Communication Skill	1	1	2
AGR 321	Farming System and Sustainable Agriculture	1	1	2
AGR 322	Practical crop Production-II (<i>Rabi</i>)	0	1	1
GPB 321	Breeding of Field and Horticultural Crops	2	1	3
HOR 321	Post Harvest Management and Value Addition of Fruits and Vegetables	1	1	2

SST 321	Principles of Seed Technology	2	1	3
Total (9)		11	9	20

Semester VII

EL	Experiential Learning	20-23		
Total		20-23		

Semester VIII

RAWE 01	Crop Production	0	5	5
RAWE 02	Crop Protection	0	4	4
RAWE 03	Rural Economics	0	3	3
RAWE 04	Extension Programme	0	4	4
RAWE 05	Research Station / KVK / DAATT Center Activities and Attachment to the Agro-based Industries	0	4	4
Total		0	20	20

GRAND TOTAL		162-165		
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- The courses for Experiential Learning will normally be offered in Semester VII and courses for RAWE in Semester VIII. However, courses under these two semesters may be interchanged if situation arises. Moreover, Experiential Learning and RAWE Programmes will be conducted as per guidelines of ICAR.
- A student has to register at least 20 credits, with major load of minimum 14 credits from one module and/or rest from among one/two module for Experiential Learning. However, the total load for Experiential Learning should not exceed 23 credits.
- Various courses under different modules of Experiential Learning to be offered in a particular academic year will be decided by the concerned HODs in consultation with the Adhayaksha, as per facilities available.
- The students will have to submit to the Adhayaksha their choice, in writing, for different courses under Experiential Learning from among the offered courses before the commencement of the semester for Experiential Learning. The distribution of various courses of Experiential Learning under different modules shall be as follows:

Module	Course Code	Course Title	Course structure (credits)		
			Theory	Practical	Total
Crop Production	ELCP01	Seed Production Technology	2	2	4
	ELCP02	Integrated Farming Systems	1	2	3
	ELCP03	Water Management (Watershed, Micro Irrigation, Problematic Water)	1	3	4
	ELCP04	Integrated Nutrient Management	2	1	3
	ELCP05	Soil Management (Conservation, Problematic Soil, and Soil Quality)	1	2	3
	ELCP06	Remote Sensing and Geographical Information System for Natural Resource Management and Land Use Planning	2	1	3
	ELCP07	Farm Mechanization	1	2	3
	Total (7)			10	13
Crop Protection	ELCPT01	Integrated pests and disease management	2	2	4
	ELCPT02	Stored Grain Pests and Their Management	1	1	2
	ELCPT03	Industrial Entomology (Apiculture, Sericulture & Lac Culture)	2	1	3
	ELCPT04	Bio-control of Insect Pests	1	1	2
	ELCPT05	Insecticides and Plant Protection Appliances	2	1	3
	ELCPT06	Postharvest Diseases and their Management	2	1	3

	ELCPT07	Mushroom cultivation	1	2	3
	ELCPT08	Biological control of plant diseases and mass multiplication microbial biocontrol agents	1	2	3
	ELCPT09	Phytosanitation and Quarantine	1	1	2
	ELCPT10	Fungicides in plant disease management	2	1	3
	Total (10)		16	12	28
Agri-Business Management	ELABM 01	Introduction to Agri-Business Management	1	2	3
	ELABM 02	Information Communication Management	2	1	3
	ELABM 03	Organization Behaviour and Human Resource Management	2	1	3
	ELABM 04	Management of Agro-based industry	1	2	3
	ELABM 05	Marketing Management	1	2	3
	ELABM 06	Financial Management of Agri-Business	1	2	3
	ELABM 07	Natural Resources Economics and Management	1	2	3
	ELABM 08	Project formulation, Evaluation and Monitoring	1	2	3
	ELABM 09	International Trade and Indian Agri-Business	2	2	4
	Total (9)		12	16	28
Social Science	ELSS 01	Agricultural Journalism	2	1	3
	ELSS 02	Visuals and Graphic Communications	2	1	3
	ELSS 03	Project Development, Appraisal and Monitoring	1	2	3
	ELSS 04	Emerging Trends in Agricultural Extension	1	1	2
	ELSS 05	International Trade	1	2	3
	ELSS 06	Government Policies and Programmes Related to Agriculture	1	2	3
	ELSS 07	Livestock, Poultry and Fish Marketing	2	2	4
	ELSS 08	Farm Planning and Budgeting	1	2	3
	ELSS 09	Multimedia Technologies	2	1	3
	ELSS 10	Behavioral Skills	2	1	3
	Total (10)		15	15	30
Horticulture	ELHOR 01	Commercial vegetable production	1	3	4
	ELHOR 02	Commercial flower production and landscaping	1	3	4
	ELHOR 03	Commercial fruit production	1	3	4
	ELHOR 04	Nursery management of horticultural crops	1	3	4
	ELHOR 05	Post harvest technology of horticultural crops	1	3	4
	Total (5)		5	15	20
Basic Science	ELBS 01	Techniques in Genetics and Plant Breeding	3	1	4
	ELBS 02	Plant Tissue Culture	1	2	3
	ELBS 03	Breeding for Biotic and Abiotic Stresses	2	1	3
	ELBS 04	Molecular Diagnostics	2	1	3
	ELBS 05	Bioinformatics	2	1	3
	ELBS 06	Diagnostic Physiology	1	2	3
	ELBS 07	Plant Growth Regulators	2	1	3
	ELBS 08	Biochemical Techniques	1	2	3
	ELBS 09	Pesticides and Techniques of Residue Analysis in Agriculture	1	2	3
	Total (9)		15	13	28

Animal Science	ELANS 01	Commercial Poultry Production and Management	1	2	3
	ELANS 02	Animal Production and Management	1	2	3
	ELANS 03	Disease Diagnosis and Management	1	2	3
	ELANS 04	Small Ruminants, Pig Production and Management	1	2	3
	ELANS 05	Duck Keeping and Pisciculture	1	2	3
	ELANS 06	Livestock Production with Mixed Farming Concept	1	2	3
	Total (6)			6	12

15. The Foundation course on Tagore Studies (Rabindra Charcha) and Environmental Studies will be non-credit courses. The classes and examinations of these two courses will be governed by the University Ordinance. No separate mark sheet will be issued for these courses.
16. The duration for semester terminal examination of different courses shall be as follows:
- a. Theory courses: 2 hours
 - b. Practical courses: 3 hours or more
 - c. Experiential Learning: 4 hours or more
 - d. RAWE' courses: 3 hours or more
17. Semester terminal examinations for Semester- I, III, V and VII shall normally be held in the first half of December while that for Semester – II, IV, VI and VIII shall normally be held in the first half of May in every academic year.
18. There will be a 10 point grading system with a minimum Grade Point (GP) of 5.00 for passing a course and an Overall Grade Point Average (OGPA) of 5.00 for completing the degree programme. A candidate failing to obtain minimum GP (5.00) in not more than three courses, in a semester, will be allowed to repeat the examination of the course(s) concerned not more than three times in next available semester. A candidate failing in more than three courses, in a semester, has to repeat the semester. But in both the cases he/she has to complete the degree programme including all the repeat courses within the maximum allowable semesters i.e., 16 semesters.
19. There shall be the provision for review system for Semester Terminal Examination (Theory). The re-evaluation will be done internally. The Joint Board of Studies (Jt. BOS) will recommend the name of two members of which one member should be the Principal or his nominee and the other member from the concerned/related subject within the Bhavana or University. In any case, the first examiner should not be the member of the review examination board.
20. (i). The results of the B. Sc. (Ag.) Hons degree shall be declared on the basis of the OGPA obtained in eight semesters taken together. The classification of results will be as follows:
- | | |
|--------------|-------------------------|
| First Class | : OGPA 7.0 and above |
| Second Class | : OGPA 5.0 to below 7.0 |
- ii. A candidate failing to obtain a minimum OGPA of 5.00 will not be considered for the award of the degree and shall be declared as failed.
- iii. The conversion formula will be 'Percent of Marks = 10xOGPA'
21. All the students shall be required to register themselves as per University norms. Each student shall submit a roster in the prescribed form indicating the courses to the Adhakshya, Palli Siksha Bhavana in each semester.

22. The students seeking admission to each Semester Terminal Examination of the B. Sc. (Ag.) Hons. course shall:

- i. Produce a certificate from the Adhyaksha, Palli Siksha Bhavana that he/she has attended at least 75% of the in –campus classes in each semester. However, relaxation allowed (if any) will be guided by the University Ordinance.
- ii. Produce a certificate from the Adhyaksha, Palli Siksha Bhavana that his/her conduct has been good and that he/she is a fit and proper candidate for the examination; and
- iii. Pay examination fees, decided by the University.

23. Conditions for repeating the semester

If a student drops a semester for exigencies beyond his/her control or, otherwise, he/she will be allowed to repeat the semester in the available semester only after VIIth Semester as mentioned below.

<u>Dropped Semester</u>	<u>Allowed to repeat</u>
I, III, V, VII	After VIII Semester
II, IV, VI	After VII Semester
VIII	Next available semester

However, he/she has to complete all the courses within the maximum allowable semesters i.e., 16 semesters.

24. The medium of instruction and examination shall be English

25. The distribution of marks in ‘Only theory courses’, ‘Only practical courses’, ‘Composite courses’, courses under ‘Experiential Learning’, and ‘RAWE’ programmes of the B. Sc. (Ag.) Hons. shall be as follows:

A. For ‘Only theory courses’:

Semester Terminal Examination	:	60
Internal Assessment	:	40
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Total		100

B. For ‘Only practical courses’(other than RAWE) :

Semester Terminal Examination	:	100
(Records and Viva-voce =40)		
.....		
Total		100

C. For ‘Composite courses’: Theory : Practical =60:40

Semester Terminal Examination (Theory)	:	40
Internal Assessment (Theory)	:	20
Semester Terminal Examination (Practical)	:	40
(Records and Viva-voce= 10)		
.....		
Total		: 100

D. For ‘Experiential Learning’ courses:

Internal Assessment (Theory)	:	40
Semester Terminal Examination (Practical)	:	60
(Records and Viva-voce= 20)		
.....		
Total		100

E. For ‘RAWE’ courses:

Semester Terminal Examination	:	60
Internal Assessment	:	40
.....		
Total		100

26. There shall be a Course Leader in each course who besides teaching the course will co-ordinate various activities of the particular course. The Adhakshya, Palli Siksha Bhavana will nominate the Course Leaders in consultation with concerned Head of the Departments.
27. There shall be a UG Course Coordinator who will co-ordinate various activities of the B. Sc. (Ag.) Hons Programme. In addition to the UG Course Coordinator, there shall be one RAWE Coordinator who will co-ordinate RAWE programmes and other out campus activities in consultation with the Adhakshya, Palli Siksha Bhavana and the UG Course Coordinator. The Adhakshya, Palli Siksha Bhavana will nominate the UG Course Coordinator and RAWE Coordinator in consultation with concerned Head of the Departments.
28. Paper setting and evaluation of semester terminal examinations:

Question papers for at least fifty percent of the courses in each semester will be set and evaluated externally, but practical part of these courses will be jointly conducted and evaluated by both external and internal members. Question papers for rest of the courses will be set and evaluated by internal members. Semester terminal examination of RAWE courses will be jointly conducted and evaluated by both internal and external members.
29. Moderation of question papers for the semester terminal theory examinations shall be done by a committee appointed as per university rules excluding the external moderator(s).
30. In the event of the External Examiner failing to turn up for the practical examination, Adhakshya, Palli Siksha Bhavana, or his nominee may act as an examiner in place of the External Examiner with intimation to the Deputy Registrar (Exam.).