Detailed Course Scheme

Bachelor of Science (Hons.)

Agriculture

Semester- VII

(2023- 27)

DOC202306080044

RNB GLOBAL UNIVERSITY

RNB Global City, Ganganagar Road,
Bikaner, Rajasthan 334601

OVERVIEW

RNB Global University follows Semester System along with Choice Based Credit System as per latest guidelines of University Grants Commission (UGC). Accordingly, each academic year is divided into two semesters, **Odd (July-December) and Even (January-June).** Also, the university follows a system of continuous evaluation along with regular updating in course curricula and teaching pedagogy.

The Curriculum for B. Sc Agriculture program for (July - December) Odd Semester 2026 along with examination pattern is as follows:

1. Vision

Vision of School of Agriculture is to be established as advanced studies and research and skill-based centre for students and scholars.

2. Mission

Mission of School of Agriculture is to cultivate a scholarly mindset and analytical abilities in students, as well as train them in agricultural sphere, to reach the profession's daunting needs by providing dynamic knowledge in the field of agriculture.

3. Program Educational Objectives (PEOs)

After successful completion of the program, the graduates will be

AGPEO 1: Able to apply concepts of basic and applied sciences to Agriculture

AGPEO 2: Able to design and develop interdisciplinary and innovative systems.

AGPEO 3: Able to inculcate effective communication skills, team work, ethics, leadership in preparation for a successful career in agriculture and R&D organizations.

4. Program Outcomes (POs)

Students graduating with the B.Sc. (Hons.) Agriculture degree should be able to:

PO1. Agriculture knowledge: Apply the knowledge of basic and applied sciences to agriculture, agriculture fundamentals and agriculture specialization to the solution of complex agriculture problems. Apply the knowledge of regenerative agriculture with a conservation and rehabilitation approach to food and farming systems.

PO2. Problem analysis: Identify, formulate, review research literature, and analyze complex agriculture problems reaching substantiated conclusions using first principles of basic and applied sciences. Understand rapid appraisal of agricultural innovation systems, a diagnostic tool that can guide the analysis of complex agricultural problems and innovation capacity of the agricultural system towards futuristic agriculture.

PO3. Design/development of solutions: Design solutions for complex agriculture problems and design system components or processes that meet the specified needs with appropriate consideration for the public health and safety, and the cultural, social, and environmental considerations.

PO4. Conduct investigations of complex problems: Use research-based knowledge and research methods including design of experiments, analysis and interpretation of data, and synthesis of the information to provide valid conclusions.

PO5. Modern tool usage: Create, select, and apply appropriate techniques, resources, and modern agriculture and IT tools including prediction and modelling to complex agriculture activities with an understanding of the limitations. Learning use of GIS, IoT, Automation, Intelligent Systems in Farming & Agriculture development & trading.

PO6. The agriculture graduate and society: Apply reasoning informed by the contextual knowledge to assess social, health, safety, legal and cultural issues and the consequent responsibilities relevant to the professional agriculture practices. Recognize, analyze, and evaluate the critical human and social factors impacting agriculture. Understand the social dimensions of agriculture and its connections with food and environmental systems.

PO7. Environment and sustainability: Understand the impact of the professional agriculture solutions in societal and environmental contexts, and demonstrate the knowledge and need for sustainable development.

PO8. Ethics: Apply ethical principles and commit to professional ethics and responsibilities and norms of the agriculture practice.

PO9. Individual and team work: Function effectively as an individual, and as a member or leader in diverse teams, and in multidisciplinary settings.

PO10. Communication: Communicate effectively on complex agriculture activities with the agriculture community and with society at large, such as, being able to comprehend and write effective reports and design documentation, make effective presentations, and give and receive clear instructions.

PO11. Project management and finance: Demonstrate knowledge and understanding of the agriculture and management principles and apply these to one's own work, as a member and leader in a team, to manage projects and in multidisciplinary environments. Able to design, launch and run a new business, to create job and not to seek for job. Also capable with an effective mix of knowledge, skills, and personal attitudes to be employed initially and function successfully in the required roles.

PO12. Life-long learning: Recognize the need for, and have the preparation and ability to engage in independent and life-long learning in the broadest context of technological change.

5. Program Specific Outcomes (PSOs)

At the end of the program, the student will be able to:

PSO 1. Clearly understand the concepts and applications in the field of agriculture. Apply the knowledge of crop cultivation, crop improvement, soil and crop management for sustainable organic agricultural production and development.

PSO 2. Associate the learning from the courses related to agriculture to arrive at solutions to real world problems. Analyze and identifying complex agricultural problems and formulating ethical solutions using the principles of agricultural science, and business.

PSO 3. Have the capability to comprehend the technological advancements in the usage of modern design tools to analyze and design subsystems/processes for a variety of applications. Develop innovative processes, products, and technologies to meet the challenges in agriculture and farming practices

PSO 4. Possess the skills to communicate in both oral and written forms, the work already done and the future plans with necessary road maps, demonstrating the practice of professional ethics and the concerns for social and environmental wellbeing.

12.1 Semester - VII	
RAWE- 411 Rural Agricultural Work Experience	**CO1:** Relate the rural and urban setting in relation to Agriculture and allied sectors and familiarize with socio-economic conditions of the agriculture stakeholders/ farmers and their problems. **CO2:** Explain the profitable based farming system can we adopted with the help of course content **CO3:** Explain about the functioning of the extension organizations viz., state agricultural departments, KVK's, and research stations. **CO4:** Justify on campus training from various faculties before step into the village attachment and Agro-industrial attachment. **CO5:** Develop communication skills during data collection and extension works and ability to solve the problems in agriculture and forestry.
AIA- 412 Agro Industrial Attachment	**CO1:** Develop knowledge about structure, functioning, ethics, objective and mandates of the industry **CO2:** Develop practical knowledge about various processing units and hands-on trainings under supervision of industry staff **CO3:** Discuss business network including outlets of the industry and skill development in all crucial tasks of the industry. **CO4:** Combine with the agri related industries and make them Aware about the functioning of the agri. Industries. **CO5:** Create an understanding of market and entrepreneurship skill.

12.2 Mapping: Semester – VII

RAWE-411	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
CO1	2	3	2	3	3	2	3	2	2	3	2	2
CO2	3	2	3				3		3	2	2	3
CO3	2	2	3	3	2	3	2	2	2		3	3
CO4	2	2	2	2		2			3	2	3	
CO5	3	3		3	3	3	2	3	2			3

AIA- 412	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12

CO1	3	2	2	3		2		2	2		2	2
CO2	3	2	3	2	2		2			2		
CO3	2	3	2	3		2	2		2	2	2	
CO4	3	2			3	2		2			2	2
CO5	3	3	3	3	2	3	3	3	3	3	2	3

Note:

This is a tentative lesson plan. The same may change from faculty to faculty as per the teaching pedagogy adopted by the faculty.

Course Scheme

Semester- VII

S. No.	Course Code	Course Name
1	20023000	Rural Agricultural Work Experience (RAWE)
2	20023100	Agro-industrial Attachment (AIA)

Rural Agricultural Work Experience and Agro-industrial Attachment (RAWE & AIA)

Rural Agricultural Work Experience (RAWE)

Rural Agricultural Work Experience (RAWE) is included in the programme, where students will be exposed to rural (Village) environment for strengthening practical training 4-5 students in a group will be associated to farmers, Agro-industrial units and Agricultural Research Centre for this purpose for a period of 3-4 months. They will be constantly supervised and evaluated by the faculty and a detailed report of the survey and works of the students for the same period has to be submitted by him/her. For RAWE student can choose any one area as mentioned below:

Total Credits = 26

Course Code	Activities	No. of weeks	Credit Hours
20023000	**Rural Agricultural Work Experience and Agro-industrial Attachment (RAWE & AIA)** **READY-Component-I** **RAWE Component I**		14
	RAWE- 411 (Rural Agricultural Work Experience)		
	1. General orientation & On campus training by different faculties	1	
	2. (a) Village attachment training programme	8	
	i. Orientation and Survey of Village		
	ii. Agronomical Interventions		
	iii. Plant Protection Interventions		
	iv. Soil Improvement Interventions (Soil sampling		

	and testing)		
	v. Fruit and Vegetable production interventions		
	vi. Food Processing and Storage interventions		
	vii. Animal Production Interventions		
	viii. Extension and Transfer of Technology activities		
	(b) Attachment in University/College/KVK/research Station	5	
20023100	**READY- Component –II** **RAWE Component - II**		
	AIA- 412 (Agro Industrial Attachment)		
	• Students shall be placed in Agro-and Cottage industries and Commodities Boards for 03 weeks. • Industries include Seed/Sapling production, Pesticides-insecticides, Post-harvest-processing-value addition, Agri-finance institutions, etc.	3	4
20023200	**Plant Clinic** • Seed/Sampling production, Pesticide/insecticide, post-harvest industries, processing- value addition, Agri –finance institutions etc.	2	2
	Activities and Tasks during Agro-Industrial Attachment Programme		
	i. Acquaintance with industry and staff		
	ii. Study of structure, functioning, objective and mandates of the industry		
	iii. Study of various processing units and hands-on trainings under supervision of industry staff		
	iv. Ethics of industry		
	v. Employment generated by the industry		
	vi. Contribution of the industry promoting environment		
	vii. Learning business network including outlets of the industry		
	viii. Skill development in all crucial tasks of the industry		
	ix. Documentation of the activities and task performed by the students		
	x. Performance evaluation, appraisal and ranking of students		

20023300	**Summer Internship /Agro Industry/Rural Development Program & Report**		**6**
	Total		**26**

READY- Component –II

Case Study of Agro Industry Attachment

1. Topic/ title of case study.
2. Student name/ ID No.
3. Name of Instructor/Supervisor/Designation.
4. Department/Section
5. Detail of Agro Industry Promoter/Place/Address of Industry
6. Relevance of case study
7. Objective of case study
8. Functioning of Agro Industry/Structure of Industry/type of technology used/type of machinery used
9. Case study out put
10. Future prospects of case study & suggestions
11. Recommendations for beneficiaries/farmers about case study
12. References/Appendices.

Note: The review of Syllabus happens on periodic basis for the benefit of the students. In case there are changes in curriculum due to review, students would be intimated in writing.

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