



**Shobhit  
University**

EDUCATION EMPOWERS

Babu Vijendra Marg, Adarsh Institutional Area  
Gangoh, Distt Saharanpur (U.P.) 247341, India  
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E-mail : [registrargangoh@shobhituniversity.ac.in](mailto:registrargangoh@shobhituniversity.ac.in)  
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## **COURSE FILE**

### **Introduction to Forestry (BAG-107)**

### **B.Sc. (Ag.) FIRST YEAR (Session 2024-2025) Odd Semester**



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**School of Agriculture and Environmental Sciences  
Shobhit University, Gangoh  
Saharanpur**





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## Program Objectives (POs):

There are 12 program outcomes which are the graduate attributes for all departments and are listed below.

**Agriculture** knowledge application begins with strong research skills, enabling professionals to stay updated with scientific advances. This leads to the implementation of sustainable practices that ensure environmental balance and productivity.

Program Outcome		Statement
PO 1	Knowledge Application	Demonstrate a comprehensive understanding of agricultural sciences, including plant and animal biology, soil science, and agricultural engineering.
PO 2	Research Skills	Conduct research using scientific methods, including data collection, analysis, and interpretation, to solve agricultural problems.
PO 3	Sustainable Practices	Promote sustainable agricultural practices that enhance productivity while preserving environmental health and biodiversity.
PO 4	Technical Proficiency	Utilize modern agricultural technologies and tools for efficient farming practices, including precision agriculture and biotechnology.
PO 5	Critical Thinking	Analyze and evaluate agricultural policies, practices, and issues critically, fostering informed decision-making.
PO 6	Communication Skill	Communicate effectively, both verbally and in writing, to diverse audiences, including farmers, policymakers, and the general public.
PO 7	Teamwork and Leadership	Work collaboratively in teams, demonstrating leadership skills in agricultural projects and initiatives.
PO 8	Economic Understanding	Understand the economic principles related to agricultural production, marketing, and management.
PO 9	Ethics and Responsibility	Uphold ethical standards in agricultural practices, considering social responsibilities and the impact on communities.
PO 10	Lifelong Learning	Foster a commitment to continuous learning and professional development in the agricultural sector.
PO 11	Livestock and Dairy Management	Fundamental knowledge of animal husbandry, poultry farming, and dairy production.
PO 12	Soil and Water Management Skills	Ability to analyze soil properties, manages fertility, and implements sustainable irrigation techniques for improved crop yield.







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## Course Outcomes (COs)

*After completion of this course, the student will be able to:*

Course Outcomes	Statement
CO 1	CO-1 Understand the Basics of Forestry: Explain the definition, history, and importance of forestry in ecological and economic contexts.
CO 2	CO-2 Explore Forest Ecosystems: Identify the components of forest ecosystems, including flora, fauna, soil, and climate interactions.
CO 3	CO-3 Comprehend Forest Management Practices: Analyze sustainable forest management principles and practices, including conservation, afforestation, and silviculture techniques.
CO 4	CO-4 Evaluate Forest Resources and Their Uses: Discuss the economic, recreational, and environmental significance of forest products and services.
CO 5	CO-5 Analyze the Role of Forestry in Climate Change Mitigation: Examine how forests contribute to carbon sequestration, biodiversity conservation, and climate resilience.
CO 6	CO-6 Understand Forestry Policies and Regulations: Assess national and international forestry policies, laws, and their impact on conservation and forest management.
CO 7	CO-7 Develop Skills in Forest Assessment and Monitoring: Practice using tools and techniques for forest inventory, mapping, and monitoring forest health.
CO 8	CO-8 Explore Career Opportunities in Forestry: Discuss various career paths in forestry, ranging from field-based roles to research, policy-making, and environmental advocacy





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Course Outcomes Mapping with POs and PSOs

## COURSE OBJECTIVES AND MAPPING ASSESSMENT LEVELS:

0 – NOT MAPPED;

1 – MAPPED AT WEAK LEVEL;

2 – MAPPED AT MODERATE LEVEL;

3 – MAPPED AT SATISFACTORY LEVEL

Course Outcomes Mapping with POs and PSOs

3 – Strong correlation

2 – Moderate correlation

1 – Weak correlations

0 – No correlation

CO	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO 10	PO 11	PO 12	PSO 1	PSO 2	PSO 3	PSO 4
CO 1	1	3	1	2	2	1	1	1	3	1		1	1	0	1	2
CO 2	1	2	0	1	3	2	2	2	2	0	2	2	0	2	1	3
CO 3	3	0	2	2	2	2	3	3	2	3	0	0	2	0	2	2
CO 4	2	3	2	3	0	3	0	3	0	1	2	2	0	0	2	3
CO 5	2	2	0	3	1	2	3	0	3	0	0	1	3	3	3	2
CO 6	1	1	0	0	2	1	3	0	0	0	0	0	0	0	0	0
CO 7	2	0	2	2	2	2	3	3	2	3	0	0	2	0	2	2
CO 8	1	0	2	2	2	2	3	2	2	3	0	0	2	0	2	2
Average	1.6	2.2	1.8	2.1	2.0	1.9	2.6	2.3	2.3	2.2	2.0	1.5	2.0	2.5	1.9	2.3

*Signature*

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## CO-PO Attainment

### CO Attainment Calculations

#### Direct Assessment

	Direct Assessment 1 (CIA)		Direct Assessment 2 (ESE)	Indirect Assessment Students/Faculty/Employer
	CIA1	CIA2	ESE	Course Exit Survey/Feedback
Number of students who have scored more than target (P)	52	53		60
Percentage of students who have achieved the target = $(P/N) \times 100$	86.66	88.33		100
Attainment Level (3 for >80%, 2 for >70%, 1 for >60%)	a = 3	b = 2	c = 3	d = 3
Attainment based on internal assessment (CIA) = Average CIA of (a and b);			= 2.5	
Direct CO Attainment Level (DA) = 40% CIA + 60% End-Term (C);			= 2.8	= $0.4 \times 2.5 + 0.6 \times 3$
Indirect CO Attainment Level (IA) (based on Exit Survey (d));			IA = 3	
80 % of DA			= 2.13	
20 % IA			= 0.6	
CO Attainment Level (COA) = 80 % DA + 20 % IA;			COA = 2.75	

*Ali van*





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Based on the Course Objectives Attainment (COA) value as calculated at the end, perform the PO/PSO Attainment Calculations as shown below:

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO 1	PSO 2	PSO 3	PSO 4	PSO 5
CO1	3	3	3	3	1	0	3	2	3	3	0	2	3	3	3	2	3
CO2	2	3	3	3	2	3	0	1	2	0	3	3	2	3	1	1	3
CO3	2	3	2	2	0	0	2	2	2	0	0	3	3	3	3	2	1
CO4	1	2	3	3	2	0	2	1	3	3	2	3	2	3	1	1	2
CO5	3	2	3	2	0	1	0	2	1	0	0	2	2	2	1	2	2
Avg.	1.6	2.2	1.8	2.1	2.0	1.9	2.6	2.3	2.3	2.2	2.0	1.5	2.0	2.5	1.9	2.3	1.6

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO 1	PSO 2	PSO 3	PSO 4	PSO 5
Average Mapping (M)	1.6	2.2	1.8	2.1	2.0	1.9	2.6	2.3	2.3	2.2	2.0	1.5	2.0	2.5	1.9	2.3	1.6
PO / PSO Attainment Level*	1.5	2.0	1.6	1.9	1.8	1.7	2.4	2.1	2.1	2.0	1.8	1.4	1.8	2.3	1.7	2.1	1.5

$$* = \text{COA} \times \text{M} / 3$$

Average Mapping (M) Chart:

*Signature*



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## PLAN OF ACTION TO IMPROVE CO ATTAINMENT NEXT TIME

1. The course syllabus will be updated to align with the academic and skill requirements of higher semester subjects.
2. Teaching strategies will be redesigned, incorporating insights gained from student feedback to enhance learning outcomes.
3. Tutorial sessions will be strengthened to provide better conceptual clarity and personalized support.
4. Interactive sessions tailored for NET/GATE preparation are planned to promote deeper engagement and understanding.
5. Students will be assigned real-world problems through assignments and seminars, encouraging them to research and present innovative solutions.

