

Lokbharati University for Rural Innovation, Sanosara

Academic Year 2025-2026

Sem 2

**Department of Natural Farming
School of Skills and Entrepreneurship**

Sr.No	Category	Course Code	Title	Credit
1	Major	06BVOCMJ203	Overview of Natural Farming	4
2	Major	06BVOCMJ204	Farm Ecology: Understanding Ecosystem on the Farm	4
3	Ability Enhancement	06BVOC AE202	Functional English II	3
4	Multidisciplinary	06BVOCMD202	Indian Knowledge System	3
5	Skill Enhancement	06BVOCSE202	Farm Implements and Machinery	3
6	Value Added	06BVOCVA202	Writing Skills	3
7	OJT/Internship	06BVOCOJT202	On the Job Training	6
Total Credit				26



Lokbharati University for Rural Innovation, Sanosara, Bhavnagar

School of Skills and Entrepreneurship

Department of Natural Farming

Bachelor of Vocation (B.Voc.)

Specialization: Natural Farming

Academic year

2025-26

A. Course Profile:

Course Type	Major 3	Year	01
Course Code	06BVOCMJ203	Semester	02
Course Title	Overview of Natural Farming	Credit	1(LC)+1 (TC) +2(PC)
Certification	BVOC Natural Farming	Hours Per Week	06

B. Outcomes:

Program Outcomes (PO) Bachelor of Vocations	<ol style="list-style-type: none">1. Foundational Knowledge Develop a fundamental understanding of agriculture, Natural Farming principles, life values, and humanities to foster holistic professional growth.2. Rural Integration & Service Identify and address the challenges of rural societies by implementing Natural Farming techniques aimed at sustainable community service.3. Global-Local Analysis Analyze local agricultural requirements and traditional practices
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	<p>within a global context to ensure contemporary relevance and sustainability.</p> <p>4. Problem Solving & Skill Application Apply disciplinary knowledge and technical skills to solve real-life problems faced by rural communities and the farming sector.</p>
<p>Program Specific Outcomes (PSO) BVOC Natural Farming</p>	<ol style="list-style-type: none"> 1. Entrepreneurship & Rural Employment Empower students to become entrepreneurs by establishing Natural Farming ventures and value-addition centers, thereby generating sustainable employability within rural sectors. 2. Cost Optimization & Productivity Implement Natural Farming techniques to reduce production costs and maximize crop yields, ensuring higher profit margins and economic viability for farmers. 3. Large-Scale Promotion & Advocacy Develop strategies to promote and scale Natural Farming practices across diverse agro-climatic zones through awareness, training, and community leadership. 4. Apply knowledge of Natural Farming history, certification standards, and food safety laws to create chemical-free value-added products, ensuring quality control and legal compliance in the sustainable market.
<p>Course Level Outcomes (LO)</p>	<ol style="list-style-type: none"> 1. Trace the transition of Indian agriculture from ancient Vedic principles (Krishi-Parashara) to the modern Evergreen Revolution, integrating traditional wisdom with contemporary needs. 2. Explain the scientific and spiritual significance of the Five Elements (Pancha Mahabhuta) and the interdependent roles of birds, animals, and microbes in sustaining a self-regulating farm ecosystem.

	<p>3. Critically distinguish between global ecological frameworks—such as Permaculture and Biodynamic Farming—and the indigenous principles of Indian Natural Farming.</p> <p>4. Develop the proficiency to read "Nature's signals," including weather patterns, soil behaviour, and pest cycles, using both traditional ecological knowledge and modern indicators.</p>
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C. **LURI Pedagogy:** Approx. 20% Lectures, 30% Multimedia and 50% Practical (Reference: https://www.ugc.ac.in/pdfnews/8126011_Draft--curriculum-framework-credit-struture-FYUGP.pdf)

D. Course Contents:

Unit	Content	Study Resources	Methods	Specific Tasks/Activities	Evaluation
Unit:1	<p><i>History of Indian Agriculture</i></p> <ul style="list-style-type: none"> • Agricultural History of Sage Parashara • Agricultural History of Sage Rishabhdev / Balarama • Pre-Green Revolution Agriculture 	<p><i>Krishi-Parashara</i> (Trans. Majumdar & Banerji). Swaminathan, M. S. (2006). <i>From Green to Evergreen</i></p>	<p>Chronological Analysis: Comparative study of traditional vs. industrial yield models.</p>	<p>Timeline Mapping: Create a visual flow of Indian farming eras.</p> <p>Peer Teaching: Presenting a "Sage to Scientist" transition</p>	<p>Written and Spoken Assignments Poster Making 10%</p>

	<ul style="list-style-type: none"> • Green Revolution • Evergreen Revolution 	<i>Revolution.</i> ICAR Historical Archives.		story.	
Unit:2	Role of the Five Elements in Agriculture <ul style="list-style-type: none"> • Role of Water • Role of Soil • Role of Sun • Role of Air • Role of Sky 	Lal, R. (2015). <i>The Soil-Human-Health Nexus.</i> Fukuoka, M. (1978). <i>The One-Straw Revolution.</i> Solar Radiation & Photosynthesis technical bulletins.	Ecological Observation: Field-based workshops to sense element interactions	Sun-Path Mapping: Analyzing shade and light on the farm. Soil Texture Test: Manual ribbon test to identify soil physical properties.	Dialogue Writing Viva 30 %
Unit:3	Role of Living Beings in Agriculture <ul style="list-style-type: none"> • Role of Animals and 	Ingham, E. (2000). <i>The Soil Biology Primer.</i>	Ethological Study: Observing the behavior of birds and microbes in the ecosystem.	Beneficial Insect Count: Identifying "farmer's friends" in the field.	Video Classroom Presentation 20%

	<p>Birds</p> <ul style="list-style-type: none"> • Role of Humans • Role of Forests • Role of Microorganisms 	<p>Altieri, M. (1995). <i>Agroecology: The Science of Sustainable Agriculture</i>. Bird diversity indices for pest control.</p>		<p>Forest Floor Analysis: Comparing forest soil to farm soil microbial activity.</p>	
Unit:4	<p>History and Concepts of Natural Farming</p> <ul style="list-style-type: none"> • Albert Howard • Fukuoka, Bill Mollison • Rudolf Steiner, Bhaskar Save • Nammalwar, Dabholkar • Dr. Subhash Palekar 	<p>Howard, A. (1943). <i>An Agricultural Testament</i>. Palekar, S. (2006). <i>Zero Budget Natural Farming</i>. Mollison, B. (1988). <i>Permaculture:</i></p>	<p>Comparative Philosophy: Analyzing different schools of organic and natural thought.</p>	<p>Expert Profile: "Cohabitation" task —staying at a natural farm to interview the practitioner.</p> <p>Concept Matrix: Comparing Biodynamics vs. ZBNF.</p>	<p>Reading Aloud 20%</p>

		<i>A Designers' Manual.</i>			
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E. List of Practical:

No	Name of Practical	Outcomes	From Unit No.
1	Timeline Mapping	Create a visual chart of the transition from Traditional to Green Revolution agriculture.	Unit 1
2	Five Elements Observation	Field study on how shade (Sky/Air) and moisture (Water) affect local soil temperature.	Unit 2
3	Microbial Activity Trap	Use of rice-hulls/organic matter to observe and identify local soil fungi and microbes.	Unit 3
4	Bird Nest & Insect Hotel Making	Build structures to attract beneficial predators and pollinators to the farm.	Unit 3
5	Comparative Case Study	Prepare a presentation on the specific techniques of Fukuoka vs. Subhash Palekar.	Unit 4

F. Minimum Requirements:

No	Type	Yes/No
1.	Assignment	Yes
2.	Presentation	Yes
3.	Written Test	Yes
4.	Viva Voce	Yes
5.	Poster Making	Yes

G. Suggested Knowledge Resources:

Print	<p>"Krishi-Parashara" (Ancient Sanskrit Text) – For historical perspectives on Indian agriculture.</p> <p>"The One-Straw Revolution" by Masanobu Fukuoka – For natural farming philosophy.</p> <p>"Permaculture: A Designers' Manual" by Bill Mollison – For ecological design principles.</p> <p>"The Unsettling of America" by Wendell Berry – For understanding the impact of industrial farming.</p>
Digital	<p>TED Talks: "The Case for Regenerative Agriculture" – Video resources for Unit 3.</p> <p>FAO Documentaries: "Agroecology: The Future of Farming."</p> <p>Subhash Palekar Natural Farming (SPNF) Portal: For technical bulletins on Indian natural farming concepts.</p>

H. Internship:

Credit	Days	Place	Theme	Outcomes	Evaluation
6	15-15 Days	Introduction to Natural Farming Field Visit (Residential) & Gir Tour / Palitana Tour / Farm Visit (Residential) (Ecology-based Internship)	Study of Natural Ecosystems & Bio-diversity	Students will document the relationship between natural forests and adjacent farmland health.	Jury, Presentation and Workbook



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School of Skills and Entrepreneurship

Department of Natural Farming

Bachelor of Vocation (B.Voc.)

Specialization: Natural Farming

Academic year

2025-26

A. Course Profile:

Course Type	Major 4	Year	01
Course Code	06BVOCMJ204	Semester	02
Course Title	Farm Ecology: Understanding Ecosystem on the Farm	Credit	1(LC)+1 (TC) +2(PC)
Certification	BVOC Natural Farming	Hours Per Week	06

B. Outcomes:

<p>Program Outcomes (PO)</p> <p>Bachelor of Vocations</p>	<ol style="list-style-type: none"> 1. Foundational Knowledge Develop a fundamental understanding of agriculture, Natural Farming principles, life values, and humanities to foster holistic professional growth. 2. Rural Integration & Service Identify and address the challenges of rural societies by implementing Natural Farming techniques aimed at sustainable community service. 3. Global-Local Analysis Analyze local agricultural requirements and traditional practices
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	<p>within a global context to ensure contemporary relevance and sustainability.</p> <p>4. Problem Solving & Skill Application Apply disciplinary knowledge and technical skills to solve real-life problems faced by rural communities and the farming sector.</p>
<p>Program Specific Outcomes (PSO) BVOC Natural Farming</p>	<ol style="list-style-type: none"> 1. Entrepreneurship & Rural Employment Empower students to become entrepreneurs by establishing Natural Farming ventures and value-addition centers, thereby generating sustainable employability within rural sectors. 2. Cost Optimization & Productivity Implement Natural Farming techniques to reduce production costs and maximize crop yields, ensuring higher profit margins and economic viability for farmers. 3. Large-Scale Promotion & Advocacy Develop strategies to promote and scale Natural Farming practices across diverse agro-climatic zones through awareness, training, and community leadership. 4. Apply knowledge of Natural Farming history, certification standards, and food safety laws to create chemical-free value-added products, ensuring quality control and legal compliance in the sustainable market.
<p>Course Level Outcomes (LO)</p>	<ol style="list-style-type: none"> 1. Evaluate soil fertility based on its structure, microbial presence, and organic carbon levels. 2. Identify and categorize beneficial above-ground organisms and understand their role in natural pest management. 3. Design a multi-layered or intercropping plan that minimizes external inputs and maximizes land utility.

	4. Apply the principles of nitrogen, carbon, and water cycles to maintain a closed-loop farm system.
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C. **LURI Pedagogy:** Approx. 20% Lectures, 30% Multimedia and 50% Practical (Reference: https://www.ugc.ac.in/pdfnews/8126011_Draft--curriculum-framework-credit-struture-FYUGP.pdf)

D. Course Contents:

Unit	Content	Study Resources	Methods	Specific Tasks/Activities	Evaluation
Unit:1	Soil Ecosystem <ul style="list-style-type: none"> • Origin and fertility of soil, soil structure and types • Importance, deficiency, and availability of essential nutrients • Importance of organisms and organic carbon in soil • Natural methods to enhance soil fertility (green manuring, 	<i>The Nature and Properties of Soils</i> (Brady & Weil). ICAR Handbook of Agriculture. Palekar, S. (2006). <i>The Philosophy of</i>	Experimental Learning: Field-based soil profiling and microbial culture preparation.	Soil Texture Analysis: "Feel Method" and jar test to determine soil type. Microbial Culturing: Preparing and observing the fermentation of Jeevamrit.	Written and Spoken Assignments Poster Making 10%

	compost, mulching, vermicompost, crop residue, <i>Jeevamrit</i> , <i>Ghanjeevamrit</i>)	<i>Spiritual Farming.</i>			
Unit:2	Above-ground Ecosystem <ul style="list-style-type: none"> • Above-ground organisms: lizards, birds, bees, spiders, insects, etc. • Importance of trees • Importance of hedges • Crop planning (limitations of monocropping and importance of multiple crops) • Mixed cropping methods (crop rotation, intercropping, relay cropping, multi-layered cropping) 	Altieri, M. (1995). <i>Agroecology: The Science of Sustainable Agriculture.</i> Fukuoka, M. (1978). <i>The One-Straw Revolution.</i>	Systems Thinking: Mapping predator-prey relationships and canopy layers.	Biodiversity Mapping: Identifying beneficial insects vs. pests on the farm. Model Design: Designing a 5-layer multi-cropping farm layout.	Dialogue Writing Viva 30 %
Unit:3	Local Cycles	<i>Ecological</i>	Inquiry-Based Learning:	Compost	Video

	<ul style="list-style-type: none"> Local nutrient cycles including the nitrogen cycle Energy cycles (carbon cycle) Water cycle (water management) Irrigation methods 	<i>Engineering for Pest Management</i> (Gurr <i>et al.</i>). FAO Manual on Natural Resource Management.	Tracking nutrient flows and water conservation math.	Monitoring: Measuring temperature and moisture in decomposition cycles. Water Audit: Calculating irrigation requirements for specific crop blocks.	Classroom Presentation 20%
Unit:4	Holistic Natural Farming <ul style="list-style-type: none"> Importance of natural farming in sustainable development Importance of natural farming in village self-reliance Natural farming as a lifestyle 	Schumacher, E.F. (1973). <i>Small is Beautiful.</i> Kumarappa, J.C. (1945). <i>Economy of Permanence.</i>	Reflective Practice: Immersive cohabitation to understand rural socio-ecology.	Village Study: Analysis of a local self-reliant farm's economic loop. Personal Manifesto: Writing a vision for "Farming as a Lifestyle."	Reading Aloud 20%

E. List of Practical:

No	Name of Practical	Outcomes	From Unit No.
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1	Preparation of Jeevamrit & Ghanjeevamrit	Master the technical steps of preparing microbial cultures for soil health.	Unit 1
2	Earthworm & Soil Microbe Count	Quantify soil life in diverse mulch layers to assess soil ecosystem health.	Unit 1
3	Beneficial Insect Identification	Field collection and identification of spiders, bees, and ladybugs.	Unit 2
4	Multi-layered Crop Design	Create a 3D model or map of a farm layout with trees, hedges, and mixed crops.	Unit 2
5	Composting Management	Monitor temperature and decomposition in a local compost unit.	Unit 1

F. Minimum Requirements:

No	Type	Yes/No
1.	Assignment	Yes
2.	Presentation	Yes
3.	Written Test	Yes
4.	Viva Voce	Yes
5.	Poster Making	Yes

G. Suggested Knowledge Resources:

Print	"Agroecology: The Science of Sustainable Agriculture" by Miguel Altieri – For technical understanding of farm
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	<p>ecosystems.</p> <p>"Teaming with Microbes" by Jeff Lowenfels – Focused on the soil food web.</p> <p>"Subhash Palekar's Five Layer Farming Model" – Technical manual for multi-layered cropping.</p> <p>"Small is Beautiful" by E.F. Schumacher – For the philosophy of rural self-reliance.</p>
Digital	<p>NPTEL: "Applied Ecology" and "Sustainable Management of Land and Water Resources."</p> <p>ICAR-Natural Farming Portal: Technical videos on Jeevamrit and mulching techniques.</p> <p>YouTube - Regeneration International: Case studies on carbon sequestration through natural farming.</p>

H. Internship:

Credit	Days	Place	Theme	Outcomes	Evaluation
6	15-15 Days	Introduction to Natural Farming Field Visit (Residential) & Gir Tour / Palitana Tour / Farm Visit (Residential) (Ecology-based Internship)	Study of Natural Ecosystems & Bio-diversity	Students will document the relationship between natural forests and adjacent farmland health.	Jury, Presentation and Workbook



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Bachelor of Vocation (B.Voc.)

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Academic year

2025-26

A. Course Profile:

Course Type	Ability Enhancement Course	Year	1
Course Code	06BVOCAE202	Semester	2
Course Title	Functional English 2	Credit	3
Certification	BVOC Natural Farming	Hours Per Week	3

B. Outcomes:

<p>Program Outcomes (PO)</p> <p>Bachelor of Vocations</p>	<ol style="list-style-type: none"> 1. Foundational Knowledge Develop a fundamental understanding of agriculture, Natural Farming principles, life values, and humanities to foster holistic professional growth. 2. Rural Integration & Service Identify and address the challenges of rural societies by implementing Natural Farming techniques aimed at sustainable community service. 3. Global-Local Analysis Analyze local agricultural requirements and traditional practices within a global context to ensure contemporary relevance and sustainability.
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	<p>4. Problem Solving & Skill Application Apply disciplinary knowledge and technical skills to solve real-life problems faced by rural communities and the farming sector.</p>
<p>Program Specific Outcomes (PSO) BVOC Natural Farming</p>	<ol style="list-style-type: none"> 1. Entrepreneurship & Rural Employment Empower students to become entrepreneurs by establishing Natural Farming ventures and value-addition centers, thereby generating sustainable employability within rural sectors. 2. Cost Optimization & Productivity Implement Natural Farming techniques to reduce production costs and maximize crop yields, ensuring higher profit margins and economic viability for farmers. 3. Large-Scale Promotion & Advocacy Develop strategies to promote and scale Natural Farming practices across diverse agro-climatic zones through awareness, training, and community leadership. 4. Apply knowledge of Natural Farming history, certification standards, and food safety laws to create chemical-free value-added products, ensuring quality control and legal compliance in the sustainable market.
<p>Course Level Outcomes (LO)</p>	<ol style="list-style-type: none"> 1. Demonstrate comprehension of complex written texts by accurately identifying main ideas, supporting details, and implied meanings in various genres of writing. 2. Construct coherent narratives using appropriate storytelling techniques, incorporating proper sequence, character development, and descriptive language in both written and oral forms. 3. Analyze different viewpoints in discussions and debates, distinguishing between facts and opinions while effectively articulating personal perspectives with supporting evidence. 4. Generate well-structured written and oral content that effectively communicates ideas, opinions, and arguments in various academic and professional contexts.

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D. Course Contents:

Unit	Content	Study Resources	Methods	Specific Tasks/Activities	Evaluation
1	Reading Comprehension 1.1. Reading a Short Story and Forming Questions	‘The Last Leaf’ by O. Henry ‘How Much Land Does a Man Need’ by Leo Tolstoy	<ul style="list-style-type: none"> • Socratic Questioning • Guided reading sessions • Group discussions Annotated reading	<ul style="list-style-type: none"> • Forming Questions • Paraphrasing • Think-pairshare • Socratic Questioning • Peer-generated questioning 	<ul style="list-style-type: none"> • Comprehension quizzes with both multiplechoice and open-ended questions. • Short answer tests
2	Reading and Paraphrasing 2.1. Summary Writing 2.3. Scanning and Skimming	‘Where Mind is Without Fear’ by Tagore ‘Travel’ by Gio Evan ‘The War Will End’ by Mahmoud Darwish	<ul style="list-style-type: none"> • Practice sessions on summarizing paragraphs with a focus on key points. • Training sessions for skimming and scanning different texts. 	<ul style="list-style-type: none"> • Summary Writing • Skimming and Scanning Exercises • Group readings 	<ul style="list-style-type: none"> • Graded summary assignments • Skimming and scanning tasks
3	Sharing an Opinion	Excerpts from <i>India of My Dreams</i> by M K Gandhi <i>To Students</i> by M K Gandhi (Instructor may also select Interviews appropriate for the language function)	Analysing excerpts and structured debates Reading and reflecting on <i>India of My Dreams</i> by M.K. Gandhi. 20 Role-playing	<ul style="list-style-type: none"> • <i>Opinion Sharing</i> • <i>Interview Analysis</i>: Read and present a chosen interview, discussing how it relates to expressing opinions in English. 	<ul style="list-style-type: none"> • Short essays or opinion pieces scored based on argument clarity, coherence, and use of evidence. • Oral presentations Feedback sessions

E. List of Practical:

No	Name	Outcomes	From Unit No.
1.	Annotated Reading Session	Students will demonstrate comprehension by accurately identifying textual elements and interpreting complex meanings.	1
2.	Timed reading comprehension	Students practice under exam conditions.	1
3.	Group Discussion on Short Stories	Enhanced ability to articulate thoughts and engage in analytical discussions.	1
4.	Summary Writing	Ability to write concise and coherent summaries, showcasing comprehension and paraphrasing skills.	2
5.	Skimming and Scanning Exercise	Improved reading speed and efficiency in extracting specific details from texts.	2
6.	Opinion Piece Writing	Ability to form and express opinions effectively, backed by reasoning and textual	3
7.	Panel Discussion	Development of articulation and presentation skills, along with critical thinking and evidence-based argumentation.	3
8.	Oral Storytelling	Enhanced oral storytelling skills, including use of descriptive language and maintaining a logical narrative flow.	4
9.	Character Analysis Presentation	Ability to analyze and convey detailed character insights while developing presentation and public speaking skills.	4

10.	Reading Circle	Builds reading fluency, confidence in speaking, and collaborative learning.	1, 2, 3
11.	Peer Review Sessions	Improves editing and critical analysis skills, promotes collaborative learning.	2, 3, 4

F. Minimum Requirements:

No	Type	Yes/No
1.	Video Shooting	Yes
2.	Assignment	Yes
3.	Presentation	Yes
4.	Written Test	Yes
5.	Viva Voce	Yes
6.	Poster Making	Yes

G. Suggested Knowledge Resources:

Print	<p>Henry, O. "The Last Leaf." <i>The Trimmed Lamp and Other Stories of the Four Million</i>, Doubleday Page & Compony, 1907, pp.198-208</p> <p>Tolstoy, Leo. "How Much Land Does a Man Need?" <i>How Much Land Does a Man Need? and Other Stories</i>, Translated by Ronald Wilks, Penguin Classics, 1994, pp. 96-110</p> <p>Tagore, Rabindranath. "Where Mind is Without Fear." <i>Gitanjali</i>, Translated by Rabindranath Tagore, The Macmillan Compony, 1915, pp. 27-28</p> <p>Darwish, Mahmoud. "The War Will End." <i>The Music of Human Flesh</i>, Translated by Denys Johnson-Davies, Heinemann,</p>
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	<p>1980</p> <p>Gandhi M.K. <i>The India of My Dreams</i>. Navajivan Mudranalaya, 1947</p> <p>Gandhi M.K. <i>To Students</i>. Navajivan Publishing House, 1953</p> <p>Bhyrappa S.L. <i>Parva</i>. The Sahitya Akademi, 1994</p> <p>Narayan R.K. <i>The Mahabharata</i>. Penguin Books Limited, 2001</p>
Digital	Kahoot, Duolingo, YouTube



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Specialization: Natural Farming

Academic year

2025-26

A. Course Profile:

Course Type	Multidisciplinary	Year	1
Course Code	06BVOCMD202	Semester	2
Course Title	Indian Knowledge Systems	Credit	3
Certification	BVOC Natural Farming	Hours Per Week	3

B. Outcomes:

<p>Program Outcomes (PO) Bachelor of Vocations</p>	<ol style="list-style-type: none"> 1. Foundational Knowledge Develop a fundamental understanding of agriculture, Natural Farming principles, life values, and humanities to foster holistic professional growth. 2. Rural Integration & Service Identify and address the challenges of rural societies by implementing Natural Farming techniques aimed at sustainable community service. 3. Global-Local Analysis Analyze local agricultural requirements and traditional practices within a global context to ensure contemporary relevance and sustainability.
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	<p>4. Problem Solving & Skill Application Apply disciplinary knowledge and technical skills to solve real-life problems faced by rural communities and the farming sector.</p>
<p>Program Specific Outcomes (PSO) BVOC Natural Farming</p>	<p>1. Entrepreneurship & Rural Employment Empower students to become entrepreneurs by establishing Natural Farming ventures and value-addition centers, thereby generating sustainable employability within rural sectors.</p> <p>2. Cost Optimization & Productivity Implement Natural Farming techniques to reduce production costs and maximize crop yields, ensuring higher profit margins and economic viability for farmers.</p> <p>3. Large-Scale Promotion & Advocacy Develop strategies to promote and scale Natural Farming practices across diverse agro-climatic zones through awareness, training, and community leadership.</p> <p>4. Apply knowledge of Natural Farming history, certification standards, and food safety laws to create chemical-free value-added products, ensuring quality control and legal compliance in the sustainable market.</p>
<p>Course Level Outcomes (LO)</p>	<p>1. Students will develop understanding of knowledge attainment</p> <p>2. Students will appreciate knowledge tradition</p> <p>3. Students will develop analytical thinking skills</p> <p>4. Students will apply insights from the Indian Knowledge System to the solve the contemporary rural issues</p>

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D. Course Contents:

Unit	Content	Study Resources	Methods	Specific Tasks/Activities	Evaluation
1	Upanishad Ganga (Indian TV Series)	Workshop	Workshop	Workshop	Workshop
2	Samvidhaan (Indian TV Series)	Workshop	Workshop	Workshop	Workshop
3	Himalayno Pravas by Kaka Saheb Kalelkar	Workshop	Workshop	Workshop	Workshop
4	Apano Vaibhav ane Varso by Manubhai Pancholi	Workshop	Workshop	Workshop	Workshop

E. List of Practical:

No	Name	Outcomes	From Unit No.
1.	Workshop	As per course level outcomes	

F. Minimum Requirements:

No	Type	Yes/No
1.	Video Shooting	
2.	Assignment	
3.	Presentation	
4.	Written Test	

5.	Viva Voce	
6.	Poster Making	

G. Suggested Knowledge Resources:

Print	<p>Kalelkar, Kakasaheb. <i>Himalayno Pravas</i> [Travelogue of the Himalayas]. 1924. Navajivan Trust, 2022.</p> <p>Mahadevan, B., Vinayak Rajat Bhat, and Nagendra Pavana R. N. <i>Introduction to Indian Knowledge System: Concepts and Applications</i>. PHI Learning, 2022.</p> <p>Pancholi, Manubhai. <i>Apano Vaibhav ane Varso</i> [Our Glory and Heritage]. 1960. Lokbharati Prakashan, 2018.</p> <p>Surapala. <i>Surapala's Vrikshayurveda: The Science of Plant Life by Surapala</i>. Translated by Nalini Sadhale, Asian Agri-History Foundation, 1996.</p>
Digital	<p><i>Samvidhaan: The Making of the Constitution of India</i>. Directed by Shyam Benegal, Rajya Sabha TV, 2014. <i>YouTube</i>, uploaded by Sansad TV, www.youtube.com/playlist?list=PLVOgWA_DiGzo_qZpPML7pXG0IS_F9Lpxu.</p> <p>"Swayam: Indian Knowledge Systems." <i>Indian Knowledge Systems Division</i>, Ministry of Education, 2024, iksindia.org.</p> <p><i>Upanishad Ganga</i>. Directed by Chandraprakash Dwivedi, produced by Chinmaya Mission, 2012. <i>YouTube</i>, uploaded by Chinmaya Channel, www.youtube.com/playlist?list=PL46E98D743D3F1D11.</p>



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Specialization: Natural Farming

Academic Year
2025-26

A. Course Profile:

Course Type	Skill Enhancement Course	Year	1
Course Code	06BVOCSE202	Semester	2
Course Title	Farm Machinery and Implements	Credit	3
Certification	B.Voc. Natural Farming	Hours Per Week	3

B. Outcomes:

Program Outcomes (PO)	<ol style="list-style-type: none"> 1. Foundational Knowledge Develop a fundamental understanding of agriculture, Natural Farming principles, life values, and humanities to foster holistic professional growth. 2. Rural Integration & Service Identify and address the challenges of rural societies by implementing Natural Farming techniques aimed at sustainable community service. 3. Global-Local Analysis Analyze local agricultural requirements and traditional practices within a global context to ensure contemporary relevance and sustainability. 4. Problem Solving & Skill Application Apply disciplinary knowledge and technical skills to
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	<p>solve real-life problems faced by rural communities and the farming sector.</p>
Program Specific Outcomes (PSO)	<ol style="list-style-type: none"> 1. Entrepreneurship & Rural Employment Empower students to become entrepreneurs by establishing Natural Farming ventures and value-addition centers, thereby generating sustainable employability within rural sectors. 2. Cost Optimization & Productivity Implement Natural Farming techniques to reduce production costs and maximize crop yields, ensuring higher profit margins and economic viability for farmers. 3. Large-Scale Promotion & Advocacy Develop strategies to promote and scale Natural Farming practices across diverse agro-climatic zones through awareness, training, and community leadership. 4. Apply knowledge of Natural Farming history, certification standards, and food safety laws to create chemical-free value-added products, ensuring quality control and legal compliance in the sustainable market.
Course Level Outcomes (LO)	<ol style="list-style-type: none"> 1. Explain and classify the constructional features, working principles, and applications of hand-operated, animal-operated, and power-operated tillage implements. 2. Analyze the operational efficiency, field capacity, and suitability of tractors and high-tech agricultural mechanization systems for different farming contexts. 3. Evaluate the functional performance and application efficiency of spraying equipment, dusters, post-harvest treatment machinery, and processing equipment. 4. Assess the selection, maintenance requirements, and economic feasibility of farm and dairy machinery, including interpretation of government schemes and subsidies.

C. **LURI Pedagogy:** Approx. 20% Lectures, 30% Multimedia and 50% Practical (Reference: https://www.ugc.ac.in/pdfnews/8126011_Draft--_curriculum-framework-credit-struture-FYUGP.pdf)

D. **Course Contents:**

Unit	Content	Study Texts	Methods	Specific Tasks/Activities	Evaluation
1.	Tillage implements 1.1 Hand operated Implements 1.2 Animal operated Implements 1.3 Power operated Implements and machinery	ખેતી તેમજ પ્રાથમિક પ્રસંસ્કરણ માટેના ઓજારો, યંત્રો અને સાધનો – ડો. એન. સી. પટેલ , ડો. આર. આર. ગજેરા (AAU)	Conceptual Lectures (Interactive) Live demonstration Comparative Analysis Multimedia Simulation	Identification & Classification Task Field Capacity Calculation Activity Estimate draft requirement for animal-drawn and tractor-drawn implements. Propose a low-cost hand-operated implement suitable for small farmers.	Journal
2.	High-tech mechanization in Agriculture 2.1 Tractor in Agricultural mechanization	ખેતી તેમજ પ્રાથમિક પ્રસંસ્કરણ માટેના ઓજારો, યંત્રો અને સાધનો – ડો. એન. સી. પટેલ , ડો. આર. આર. ગજેરા (AAU)	Technical Lecture with Visual Aids Laboratory Demonstration Field Visit / Industry Exposure Group Discussion	Tractor Component Study Power & Efficiency Calculation Analyze mechanization level of: <ul style="list-style-type: none"> • A small farm (<2 ha) • A large mechanized farm Visit a mechanized farm or tractor service center.	Assignment Submission
3.	Spraying equipments 3.1 Different types of sprayers, dusters	http://eagri.org/eagri50/FMP211/lec12.html 31	Demonstration-Based Teaching Calibration Practical Mini Project: Design a low-cost spraying	Sprayer Calibration Practical Nozzle Performance Comparison Dismantle and assemble a knapsack sprayer.	Presentation

E. List of Practical:

No	Name	Outcomes	From Unit No.
2.	Study and Identification of Tillage Implements	To identify, classify, and understand the constructional features and working principles of hand-operated, animal-operated, and power-operated tillage implements.	1
3.	Determination of Field Capacity and Field Efficiency of a Tillage Implement	To calculate Theoretical Field Capacity (TFC), Effective Field Capacity (EFC), and Field Efficiency of a selected implement under field conditions.	1
4.	Study of Tractor Systems and Power Measurement	To identify major tractor systems (engine, transmission, hydraulic system, PTO) and determine drawbar power and fuel efficiency under operational conditions.	2
5.	Calibration and Performance Evaluation of Sprayer	To calibrate a knapsack/power sprayer, determine nozzle discharge rate, spray volume per hectare, and evaluate application efficiency.	3
6.	Study of Post-Harvest Processing Machinery	To study the working principles and operational parameters of threshers, graders, or milling machines and assess processing efficiency and grain losses.	3
7.	Study of Dairy Farm Machinery and Preparation of Maintenance Schedule	To observe the working of dairy machinery (milking machine, chaff cutter, feed mixer) and prepare a preventive maintenance and lubrication schedule.	4

F. Minimum Requirements:

No	Type	Yes/No
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1.	Journal	Yes
2.	Assignment	Yes
3.	Presentation	Yes
4.	Written Test	Yes
5.	Viva Voce	Yes
6.	Report	Yes

G. Suggested Knowledge Resources:

Print	1. ખેતી તેમજ પ્રાથમિક પ્રસંસ્કરણ માટેના ઓજારો, યંત્રો અને સાધનો – ડો. એન. સી. પટેલ , ડો. આર. આર. ગજેરા (AAU)
Digital	1. http://eagri.org/eagri50/FMP211/lec12.htm



Lokbharati University for Rural Innovation, Sanosara, Bhavnagar

School of Skills and Entrepreneurship

Department of Natural Farming

Bachelor of Vocation (B.Voc.)

Specialization: Natural Farming

Academic year

2025-26

A. Course Profile:

Course Type	Value Added Course	Year	1
Course Code	06BVOCVA202	Semester	2
Course Title	Writing Skills	Credit	3

Certification	BVOC Natural Farming	Hours Per Week	3
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B. Outcomes:

<p>Program Outcomes (PO) Bachelor of Vocations</p>	<ol style="list-style-type: none"> 1. Foundational Knowledge Develop a fundamental understanding of agriculture, Natural Farming principles, life values, and humanities to foster holistic professional growth. 2. Rural Integration & Service Identify and address the challenges of rural societies by implementing Natural Farming techniques aimed at sustainable community service. 3. Global-Local Analysis Analyze local agricultural requirements and traditional practices within a global context to ensure contemporary relevance and sustainability. 4. Problem Solving & Skill Application Apply disciplinary knowledge and technical skills to solve real-life problems faced by rural communities and the farming sector.
<p>Program Specific Outcomes (PSO) BVOC Natural Farming</p>	<ol style="list-style-type: none"> 1. Entrepreneurship & Rural Employment Empower students to become entrepreneurs by establishing Natural Farming ventures and value-addition centers, thereby generating sustainable employability within rural sectors. 2. Cost Optimization & Productivity Implement Natural Farming techniques to reduce production costs and maximize crop yields, ensuring higher profit margins and economic viability for farmers. 3. Large-Scale Promotion & Advocacy Develop strategies to promote and scale Natural Farming practices across diverse agro-climatic zones through awareness, training, and community leadership. 4. Apply knowledge of Natural Farming history, certification standards, and food safety laws to create chemical-free value-added products, ensuring quality control and legal compliance

	in the sustainable market.
Course Level Outcomes (LO)	<ol style="list-style-type: none"> 1. Demonstrate proficiency in grammar, punctuation, and sentence structure. 2. Organize and structure ideas coherently in written form for a variety of purposes and audiences. 3. Analyze and apply effective writing techniques, such as clarity, conciseness, and cohesiveness. 4. Develop and revise drafts based on feedback and self-assessment.

C. **LURI Pedagogy:** Approx. 20% Lectures, 30% Multimedia and 50% Practical (Reference: https://www.ugc.ac.in/pdfnews/8126011_Draft--curriculum-framework-credit-struture-FYUGP.pdf)

D. Course Contents:

Unit	Content	Study Resources	Methods	Specific Tasks/Activities	Evaluation
1	<p>1.1. Introduction to Writing Process</p> <ul style="list-style-type: none"> Overview of writing as a process; pre-writing, drafting, revising; understanding audience and purpose <p>1.2. Grammar and Sentence Structure</p> <ul style="list-style-type: none"> Parts of speech, sentence types, and sentence structure; avoiding fragments and run-ons; exercises for clarity and precision <p>1.3. Punctuation and Mechanics</p> <ul style="list-style-type: none"> Proper use of commas, semicolons, colons, and other punctuation; common grammar pitfalls; capitalization and spelling 	<i>The Story of My Experiments with Truth</i> by M K Gandhi	<ol style="list-style-type: none"> Interactive Lecture + Discussion Mind Mapping Mini-Lessons on Specific Grammar Points 	<ol style="list-style-type: none"> Exploring Ideas Sentence Combining and Deconstruction Exercises Games and Quizzes Proofreading Practice 	Written Assignment / Test
2	<p>2.1. Paragraph Development</p> <ul style="list-style-type: none"> Topic sentences and supporting details; creating unity and coherence within paragraphs; using transitions to improve flow <p>2.2. Writing for Different Purposes</p> <ul style="list-style-type: none"> Exploring different writing types (narrative, descriptive, expository, persuasive); identifying purpose and adjusting tone accordingly <p>2.3. Style and Clarity</p> <ul style="list-style-type: none"> Techniques for concise writing; avoiding redundancy and jargon; exercises on tone and word choice 	Excerpts from <i>Sarvodaya Shikshan Bhag 1 and 2</i> by Manubhai Pancholi	<ol style="list-style-type: none"> Model Analysis Color-Coding Technique Genre exploration Writing Stations 	<ol style="list-style-type: none"> “Build-a-Paragraph” Activity Peer Review Activity Transition Word Sorting Game 	Written Assignments
3	<p>3.1. Organization and Structure</p> <ul style="list-style-type: none"> Outlining and structuring essays; thesis statements and introductions; paragraph order and progression 	<i>Kelavanini Pagadandi</i> by Nanabhai Bhatt ³⁷	<ol style="list-style-type: none"> Deconstruct the Essay Use of Digital Tools: Padlet 		Viva and Written assignments
	<p>a. Argumentative Writing</p> <ul style="list-style-type: none"> Developing claims, evidence, and 	Excerpts from <i>Argumentative</i>	<ol style="list-style-type: none"> Claim- 	<ol style="list-style-type: none"> Debates 	Presentation and Viva

E. List of Practical:

No	Name	Outcomes	From Unit No.
	Write a short paragraph	understand the stages of the writing process and can apply them	1
	Peer discussion	learn to adapt their writing style and tone	1
	Grammar correction worksheet	identify and correct basic sentence-level errors	1
	Punctuation editing task	proper use of commas, semicolons, and capitalization.	1
	proofreading exercise	enhance accuracy and attention to mechanical details	1
	Develop one paragraph from a given topic sentence	learn to construct unified, coherent paragraphs.	2
	Word choice exercise	develop sensitivity to diction and style.	2
	Analyse tone and purpose in two short articles	develop the ability to adapt tone and structure based on purpose and audience.	2
	Skeleton Essay	Learn to draft an essay focused on context and theme	3
	Peer review session	learn to critique and revise their own and others' writing effectively.	3
	Writing arguments on provided topics with focus on Claim, Evidence and Reasoning	To develop well-supported arguments through evidence-based writing.	4
	Fallacy Identification Exercise	recognize common errors in reasoning that weaken arguments	4

F. Minimum Requirements:

No	Type	Yes/No
7.	Video Shooting	Yes
8.	Assignment	Yes
9.	Presentation	Yes
10.	Written Test	Yes
11.	Viva Voce	Yes
12.	Poster Making	Yes

G. Suggested Knowledge Resources:

Print	1. The Blue Book of Grammer and Punctuation - Jane Straus 2. The St. Martin's Guide to Writing - Charles R Cooper and Rise Axelrod 3. College Writing Skills with Readings: Langan, John, 1942 4. <i>The Story of My Experiments with Truth</i> by M K Gandhi 5. Excerpts from <i>Sarvodaya ne Shikshan Bhag 1 ane 2</i> by Manubhai Pancholi 6. <i>Kelavanini Pagadandi</i> by Nanabhai Bhatt 7. Excerpts from <i>Argumentative Indian</i> Amartya Sen
Digital	1. Grammarly 2. Padlet